TOXWATCH
DATA ANALYSIS REPORT
(1999-2008)

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Indiana Department of Environmental Management

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Report Summary

The ToxWatch monitoring network is a series of air toxics monitors located in primarily urban areas of Indiana. At any given time, there are approximately ten (10) active monitors in the network. This report covers all monitors that were active for at least 5 years during the period of 1999 through 2008. See page 1-1 for a complete list of current and past monitoring locations within the ToxWatch network.

This report has two primary goals; the first is to develop risk and hazard estimates to evaluate if any significant problems related to air toxics exist within the state, and secondly to determine if air toxics concentrations are increasing or decreasing across the state. This information will help inform future decisions regarding air toxics in the state. Risk and hazard estimates were calculated using standard U.S. EPA statistical procedures, and trends were examined both by visual inspection of graphed data and by using a Mann-Kendal trend analysis. Section 1.0 of this report outlines these procedures in more detail.

Pollutants of Concern

Acrolein is by far the biggest non-carcinogenic concern in the state. Hazard quotients for acrolein ranged from 72 at the Ogden Dunes monitor to 130 at the Hammond CAAP monitor. A hazard quotient less than 1.0 is considered health protective. There are many unresolved concerns regarding acrolein in Indiana and around the nation. While Indiana's acrolein concentrations are high enough to warrant further investigation, when compared to acrolein concentrations observed in other states, it becomes obvious that concerns with acrolein are not unique to Indiana. See section 1.2 of this report for more information about problems encountered with acrolein.

See Figure S-1 for a graphical representation of all acrolein hazard quotients in the ToxWatch network. Because acrolein monitoring did not begin until mid-2006, these hazard quotients are based on approximately 2½ years of sampling data.

Figure S-1 – Comparison of Acrolein Hazard Quotients 2006-2008
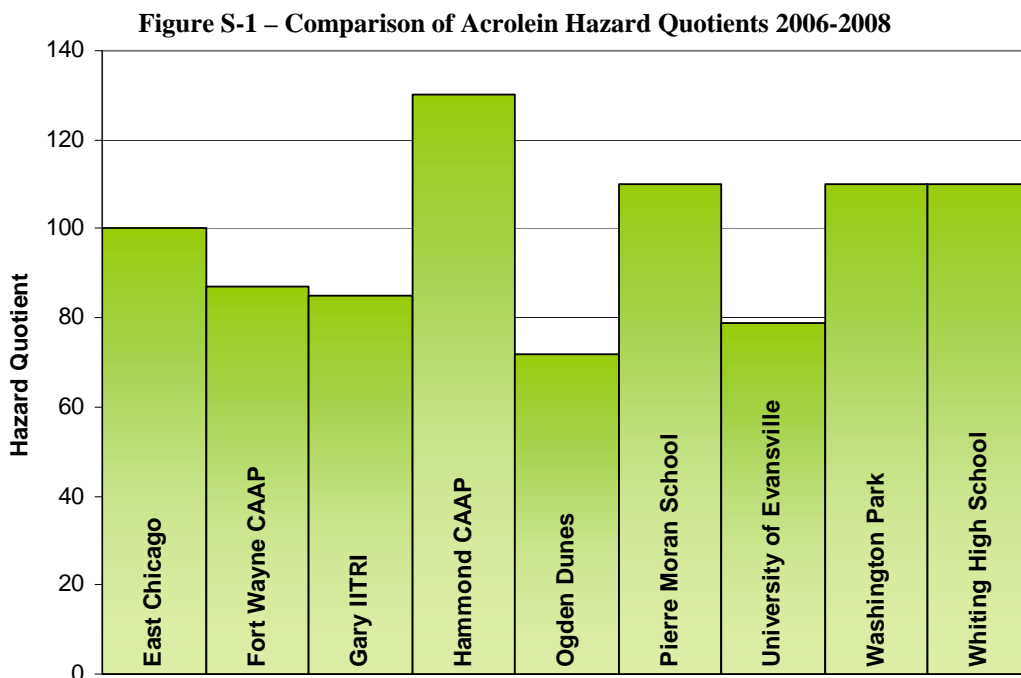
Benzene is the primary carcinogenic concern within the state. Benzene is consistently detected at all monitoring locations within the state at rates near or exceeding 90%. Risk estimates for benzene exceed 1-in-1,000,000 at all monitoring locations except Ogden Dunes. The only other carcinogen approaching benzene in its ubiquitousness and risk levels is carbon tetrachloride. However, carbon tetrachloride's manufacture and use within the United States has been drastically cut and most carbon tetrachloride in the air is generally attributed to its persistence in environment. Because of this, carbon tetrachloride is generally considered a global background pollutant and little can be done further to reduce its concentrations in air. See Figure S-2 for a graphical representation of all benzene risk estimates in the ToxWatch network

**Figure S-2 – Comparison of Benzene Risks 1999-2008**
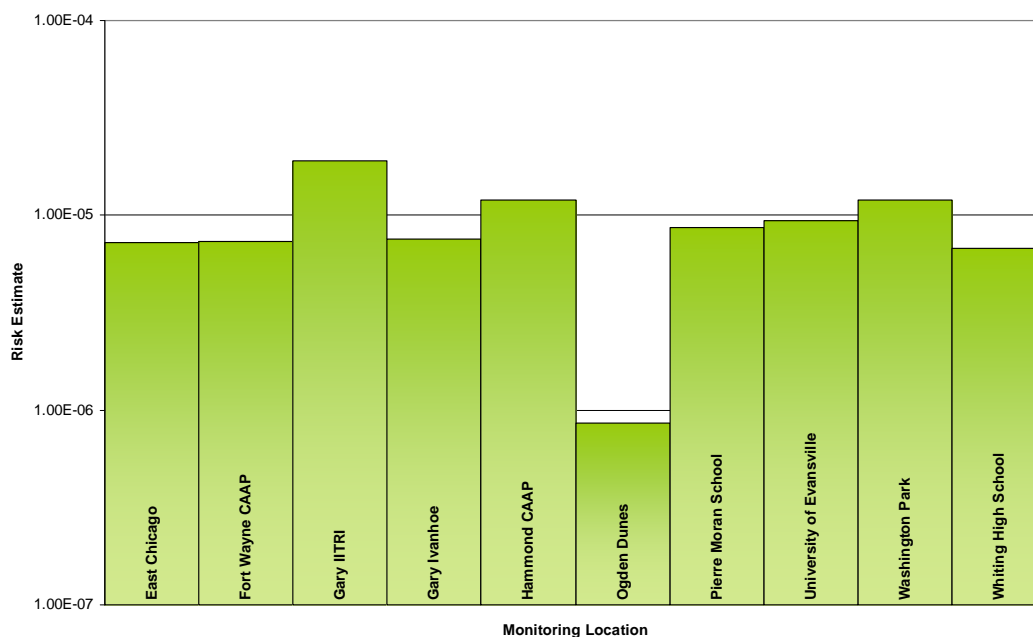
Monitoring Locations

Monitors in the ToxWatch network are generally sited in areas where one might expect there to be elevated concentrations of air toxics. As such, any discussion of risks or hazards within the network should not be considered indicative of the overall quality of air within the state. For example, the Ogden Dunes monitor recorded some of the lowest pollutant concentrations within the ToxWatch network. This should not be interpreted to mean that Ogden Dunes has the "cleanest" air in the state, and all other areas of the state are worse. It only means that Ogden Dunes generally has the lowest pollutant concentrations of any of the ToxWatch monitors.

That being said, Ogden Dunes does consistently show some of the lowest air toxics concentrations of any monitor within the state. As stated above, Ogden Dunes had the lowest acrolein hazard quotient in the network, and was the only monitor to show a benzene risk of less than 1-in-1,000,000. Please refer to Figure S-3 for a graphical representation of pollutant hazard quotients at the Ogden Dunes monitor.

Figure S-3 – Comparison of Hazard Quotients at Ogden Dunes Monitor 1999-2008
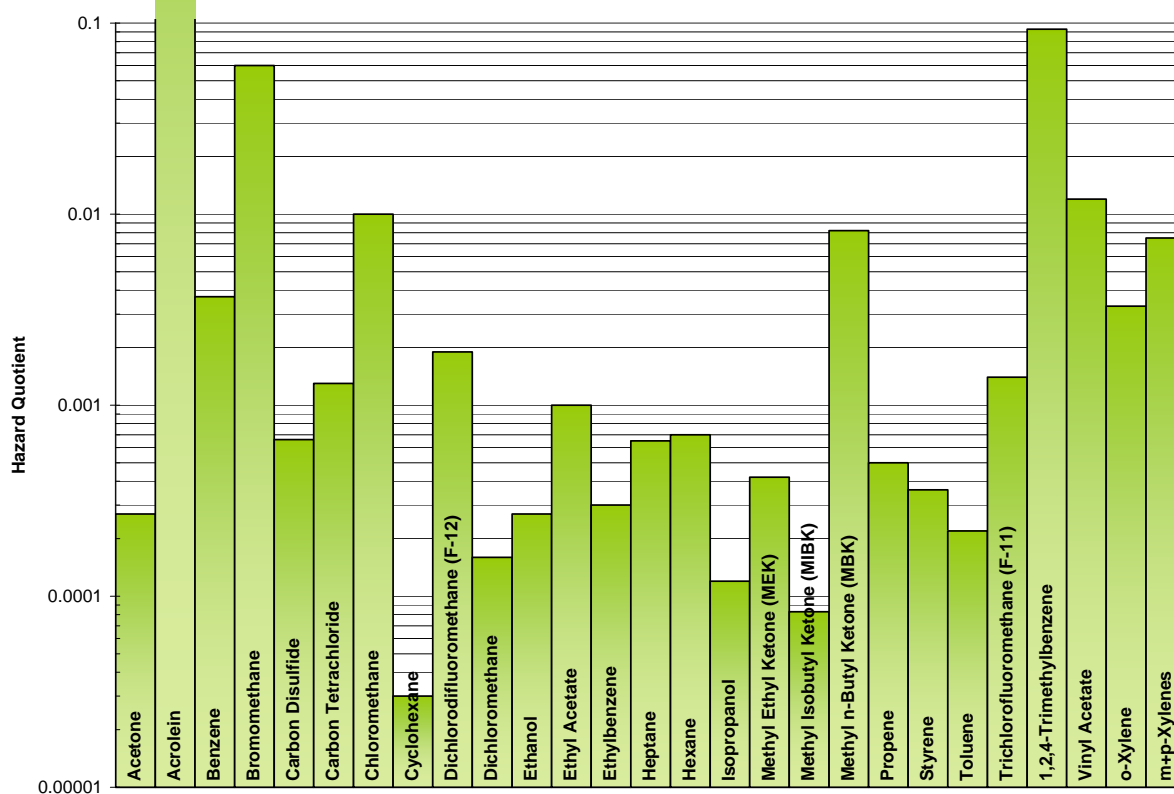
1.0 INTRODUCTION

ToxWatch is an ambient-air-quality monitoring program conducted by the Office of Air Quality (OAQ) within the Indiana Department of Environmental Management (IDEM). The program has been actively monitoring air toxics concentrations within the state for over a decade. At any given time there are approximately 10 active monitoring locations within the state, each taking 1 in 6 day samples for approximately 60 air toxics. These samples are analyzed by IDEM's in-house laboratory and the results are made available to the public through IDEM's website. Table 1.1 is a list of past and present monitoring locations within the ToxWatch network.

Table 1.1 - ToxWatch Monitoring Locations

Location Name	Address	County	Years Sampled
Culver School	1301 Judson St., Evansville	Vanderburgh	2000
East Chicago	3330 Aldis St., East Chicago	Lake	1999-2008
Elkhart Firestation #5	515 Simpson St., Elkhart	Elkhart	1999-2000, 2003
Fort Wayne CAAP	2022 N. Beacon St., Ft. Wayne	Allen	2003-2007
Gary IITRI	201 Mississippi St., Gary	Lake	1999-2008
Gary Ivanhoe	5700 W. 15th St., Gary	Lake	2000-2003
Hammond CAAP	1300 E. 141st St., Hammond	Lake	1999-2008
Hammond Purdue	6937 Woodmar Ave., Hammond	Lake	2000-2001
Harding Street	1321 S. Harding St., Indianapolis	Marion	1999, 2006-2008
Lafayette – Cinergy	3401 Greenbush St., Lafayette	Tippecanoe	2008
Lincoln Elementary	4221 S. Towle Ave., Hammond	Lake	2000-2001
Mount Vernon School	701 Tile Factory Rd., Mt. Vernon	Posey	2000
Naval Avionics	6125 E. 16th St., Indianapolis	Marion	1999
New Albany/Clarksville	201 W. Riverside Dr., Clarksville	Clark	2008
North High School	2319 Stringtown Rd., Evansville	Vanderburgh	2000
Northside School	300 Lawrence St., Elkhart	Elkhart	1999-2000
Ogden Dunes	84 Diana Rd., Ogden Dunes	Porter	1999-2008
Pierre Moran School	200 W. Lusher Ave., Elkhart	Elkhart	1999-2007
Pinewood School	3420 E. Bristol St., Elkhart	Elkhart	1999-2000
Pulaski Dunbar	920 E. 19th Ave., Gary	Lake	2000-2001
School 21	2815 English Ave., Indianapolis	Marion	2001-2008
School 90	3351 W. 18th St., Indianapolis	Marion	1999
Stoutfield	2002 S. Holt Rd., Indianapolis	Marion	2006-2008
University of Evansville	1800 Walnut St., Evansville	Vanderburgh	1999-2008
Washington Park	3120 E. 30th St., Indianapolis	Marion	1999-2008
Whiting High School	1751 Oliver St., Whiting	Lake	2005-2008

1.1 METHODOLOGY

The ToxWatch database is a very large database, which includes a decade worth of monitoring data for many of the monitoring locations. Over the course of the monitoring program many things have changed: laboratory analysis methods were updated, analytes were added and dropped, monitoring equipment was moved from one location to another, etc. All these changes result in a diverse dataset which requires special attention to be sure that conclusions drawn from it are both accurate and defensible. This section will discuss the methods used to analyze the data within the database.

1.1.1 Narrowing the Dataset

Not all monitoring locations had sufficient data, or were sampled recently enough, to warrant inclusion in this report. As such, only sampling locations that had at least five consecutive years of monitoring data within the period from 1999-2008 were included in the analysis. These criteria resulted in 10 monitoring locations being included within this report:

- East Chicago,
- Fort Wayne CAAP,
- Gary IITRI,
- Gary Ivanhoe,
- Hammond CAAP,
- Ogden Dunes,
- Pierre Moran School,
- University of Evansville,
- Washington Park, and
- Whiting High School

Harding Street and Stout Field were excluded from the list because they are being analyzed separately for the Southwest Indianapolis Air Toxics Study. School 21 was excluded because the data have already been analyzed as part of its own study.

Beginning in 2002, IDEM's laboratory switched from using U.S. EPA method TO-14 for analysis of the ToxWatch ambient air samples, to U.S. EPA method TO-15. This switch caused some analytes to be dropped from the database and others to be added. Due to the age of the change, it was decided that only compounds that were part of the TO-15 analyte list would be included in this analysis.

1.1.2 Toxicity Hierarchy

There are several sources of published toxicity parameters available on the internet and elsewhere. None of these sources is exhaustive and they do not always agree on the risk or hazard posed by a particular compound. As such, several sources were examined when developing the toxicity parameters for the analysis. The sources in the first tier are generally considered the most reliable sources of toxicity data in the environmental arena:

1. **U.S. EPA Office of Air Quality Planning and Standards (OAQPS)**
   OAQPS compiles a list of available inhalation toxicity data for use in air risk assessments. It is updated on a regular basis and uses many of the other sources on this list, making it a valuable starting point.

2. **Integrated Risk Information Service (IRIS)**
   IRIS is U.S. EPA's online database of toxicity parameters. It is maintained by the National Center for Environmental Assessment (NCEA) and is widely considered to be the definitive source of toxicity parameters within the United States.

3. **Agency for Toxic Substances and Disease Registry (ATSDR)**
   ATSDR is a division of the U.S. Department of Health and Human Services tasked with implementing the health-related sections of laws that protect the public from hazardous wastes and environmental spills of hazardous substances. Part of this task has been fulfilled by developing a series of "Toxicological Profiles" which include acute, intermediate (sub-chronic), and chronic reference doses and reference concentrations (RfCs) for several compounds. ATSDR's primary focus is on non-carcinogenic effects and has developed few, if any, inhalation unit risks (IURs).

4. **California Environmental Protection Agency (Cal/EPA)**
   Cal/EPA is the state-level agency responsible for the protection of human health and the environment in the State of California. Cal/EPA has done extensive independent toxicity research and has developed many of its own toxicity parameters. Many of these toxicity parameters have been cited by state and federal agencies across the nation.

Each of these sources was checked in turn for available toxicity parameters. If the above sources were unable to provide toxicity information, data from a second tier of sources that were deemed not to be as reliable or as widely accepted as their counterparts above were compiled in an attempt to fill gaps in the dataset. These sources included:

1. **The National Institute for Public Health and the Environment (RIVM)**
   RIVM is the environmental agency of the Netherlands. They have derived many toxicological parameters that are applied in the Netherlands and the rest of Europe. However, as their values do not undergo external peer review and are not widely used within the United States, they were not included among the list of Tier 1 sources.

2. **Health Canada**
   Health Canada is the federal department within the Canadian government responsible for the health of Canadian citizens. They fill the role of environmental regulator in Canada as well as administering social programs such as the national healthcare system. Health Canada maintains a database of toxicity parameters for use in the environmental field. This database was searched but was unable to provide any new toxicity parameters.

3. **Health Effects Assessment Summary Tables (HEAST)**
   HEAST was published by U.S. EPA's National Center for Environmental Assessment (NCEA) until 1997. The HEAST tables contained non-carcinogenic toxicity parameters that U.S. EPA did not recognize as "high quality, Agency-wide consensus information". HEAST is still widely cited, but due to the lack of updates, was included in the lower tier of sources.

4. **IDEM Office of Land Quality (OLQ)**
   OLQ maintains a table of default closure levels (DCLs) used in environmental remediation oversight by the IDEM. These DCLs are derived by using toxicity data collected from many of the sources already described in the lists above. However,

when toxicity parameters are not available from a traditional source, OLQ will derive provisional toxicity values for use on a site-by-site basis.

After compiling all available data from the above sources, an analysis of American Council of Government Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) was conducted to determine whether they could be modified to serve as RfCs. TLVs are air concentrations that are meant to be protective of human health in a workplace environment. ACGIH does not, as is often thought, incorporate economic or technological considerations into their derivation of TLVs. As such, it was decided that, with proper adjustment, they could serve as RfCs.

To determine a proper adjustment factor, a list was compiled of all available RfCs from IRIS. This list was then compared against the 2008 TLV list to generate a table that contained compounds that had both an RfC in IRIS and a TLV. These TLVs were then converted to a continuous exposure concentration using the following equation:

Equation 1.1 - TLV Continuous Exposure Conversion

$$TLV_{CE} = TLV \times \frac{5\text{days}}{7\text{days}} \times \frac{10\text{m}^3}{20\text{m}^3}$$

Value	Description
TLV_{CE}	Continuous Exposure Threshold Limit Value
TLV	Threshold Limit Value
5days	Workdays per Week
7days	Total Days per Week
10m^3	Occupation Daily Breathing Rate
20m^3	Total Daily Breathing Rate

This basic approach was modified from one outlined in section I.A.4. of IRIS's discussion of Aluminum Phosphide's oral reference dose. (http://www.epa.gov/ncea/iris/subst/0005.htm)

A scatter plot of the IRIS RfCs and the continuous exposure TLVs was generated and a best-fit line was determined. Microsoft Excel offers several trend lines and each was tested to determine which had the best correlation with the available data. Once a best-fit line was determined, a level of conservatism was added to ensure that 95% of the predicted values would be at least as conservative as the IRIS RfC. The final result was the following equation:

Equation 1.2 - RfC Derivation from TLV$_{CE}$

$RfC = 0.000328TLV_{CE}^{1.126}$	
Value	**Description**
RfC	Reference Concentration
TLV_{CE}	Continuous Exposure Threshold Limit Value

Figure 1.1 - Predicted Iris Values vs. Actual IRIS Values
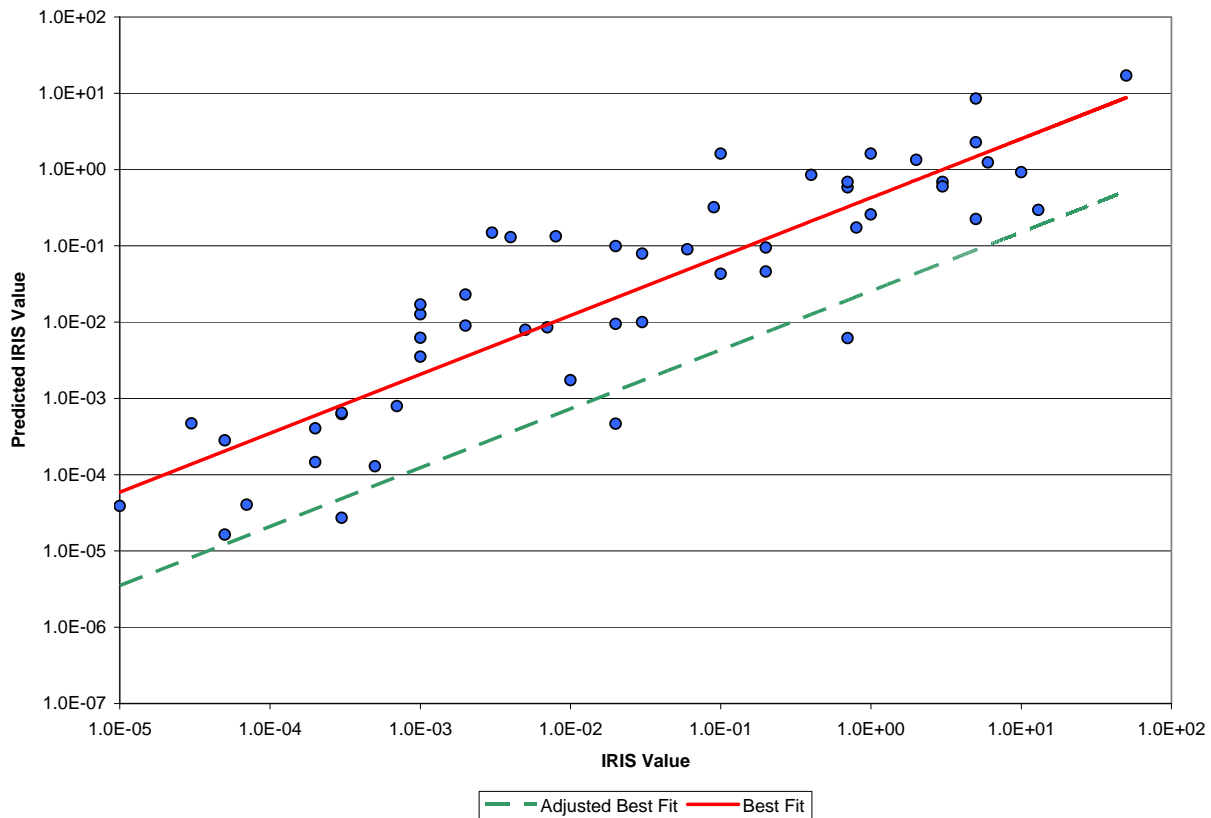
Figure 1.1 describes the correlation between actual IRIS values and those derived by Equation 1.2. Equation 1.2 was then used, along with information found in the 2008 TLV list, to derive RfCs for the following compounds:

- Benzyl Chloride,
- Dichlorodifluoromethane,
- Ethyl Acetate, and
- Heptane

It should be noted that while IDEM feels that the RfCs derived through this method are adequately conservative for these purposes, they do not carry the same weight as other values found in the hierarchy and should not be treated equally.

1.1.3 Exposure Point Concentrations

An exposure point concentration (EPC) is a conservative estimate of the concentration of a pollutant to which a receptor (i.e., a person) will come in contact. Several considerations must be made before an EPC can be calculated. These considerations include which statistical method will be used to calculate the EPC, how non-detects (i.e. concentrations too low to quantify) will be handled, and what exposure assumptions will be applied.

Many factors affect the choice of method to use including; size of dataset, statistical distribution, and method of sampling. For datasets which were randomly or systematically sampled and which have enough detected values, a 95% upper confidence limit of the mean (UCL) is the generally preferred method. A 95% UCL represents a value which one can be 95% confident that the true mean of the population is below that value. For the purposes of this analysis, this was the only type of EPC used. For discussion of datasets which were not adequate to calculate a UCL see section 1.1.6 Method Detection Limits (MDLs).

Common practice in the past has been to substitute ½ the detection limit for any non-detect values. Recent guidance from U.S. EPA and others has suggested that this is no longer an acceptable method for dealing with non-detects because it introduces an undue amount of bias into the results. The Kaplan-Meier Product Limit Estimate (Kaplan-Meier, or KM) method has been recommended by U.S. EPA and others, and was chosen for this analysis.

Kaplan-Meier is a non-parametric method that allows the calculation of a less-biased mean and standard error (and by extension, many other statistical values) from a dataset that contains values below the method detection limit (non-detects). Kaplan-Meier has many advantages over other methods for dealing with non-detects. It is a non-parametric method, and as such does not require that the distribution of the data be known. It can be used with datasets that contain many non-detects, and it is more accurate than substitution methods such as using ½ the detection limit.

There are at least two different variations of the Kaplan-Meier method. The main difference in these methods appears to be where censoring occurs in the dataset. The dataset can be censored either at the lowest detection in the dataset or at the lowest detection limit. Censoring at the lowest detection limit will introduce less bias into the results, while censoring at the lowest detection will provide results that are slightly more conservative. To be consistent with U.S. EPA's ProUCL software, this analysis chose to censor at the lowest detection, rather than the lowest detection limit.

Due to the large number of EPCs that needed to be calculated, it was decided that U.S. EPA's ProUCL software would be too cumbersome to use. As such, a Microsoft Excel macro was written that automated the calculation of a Kaplan-Meier student's-t (KM(t)) 95% UCL. The student's-t UCL is a parametric method which requires a normally distributed dataset. However, a sample of data run through ProUCL showed that the differences between ProUCL's recommendation and the KM(t) UCL were minimal. Therefore, it was decided that the timesavings offered by the automated method outweighed the small amount of bias introduced.

Often various exposure assumptions are made when calculating EPCs. These exposure assumptions can include how many years a person is exposed to a pollutant, how many days a year exposure occurs, and even how many hours per day one is exposed. For the purposes of this report, continuous exposure over a lifetime was assumed. This means that risks and hazards calculated for this report assume 24 hours per day of exposure, 365 days per year, for 70 years. These are a conservative set of assumptions and help ensure that decisions made are health protective.

1.1.4 Trend Analysis

Mann-Kendall (MK) trend analysis was the primary method for determining trends in this study. MK trend analysis is a common non-parametric method of determining trends in environmental datasets. It is more commonly used in determining stability in groundwater contamination plumes at environmental remediation sites. However, it was determined to be, with caveats, an acceptable method for this analysis as well.

Gilbert (1987) contains a detailed description of the method and mathematics behind MK analysis and was used to design a series of Microsoft Excel macros that could quickly and accurately calculate large numbers of MK trends. The results of the 95% MK analysis can be found in Appendix A, along with other summary data.

Only datasets with at least a 25% detection rate were subjected to MK analysis. It should be noted that the higher the detection rate, the higher the confidence in the MK analysis. When examining the MK results, special attention should be payed to the detection rates and sample size when drawing conclusions about trends. To prepare a dataset for MK analysis, all not detected (ND) and below detection limit (BDL) results were replaced with the lowest MDL reported for the pollutant. The lowest MDL was used rather than the yearly MDL because using a varying MDL could produce inaccurate results by introducing variation into the dataset that does not really exist.

As an additional means to examine trends in the datasets, the yearly EPCs for each pollutant at each monitoring location were graphed and visually examined for trends. These graphs are available for each pollutant in section 3.0 of this report.

1.1.5 Correlation Analysis

Pearson's r Correlation Analysis was used to compare each pollutant at a sampling location to every other pollutant at that location. A correlation analysis of pollutants from one site to the other was also conducted, as a simple way to determine if any pollutants were regional, rather than local issues. These analyses did not show any definitive correlation.

1.1.6 Method Detection Limits (MDLs)

It is important to note that just because a compound is ND or is BDL does not mean that the compound was not present in the sample. Sampling and analysis techniques are not perfect, and as such, are unable to detect very small concentrations of compounds in a sample. This is quantified in the MDL. The MDL is a number that represents the lowest concentration of a compound that can be quantitatively measured in a sample with reasonable confidence. Even with the very low MDLs that IDEM is able to achieve (parts per billion), air monitoring commonly results in samples with pollutant concentrations below detection limits. MDLs are meant to take into account factors such as equipment precision, technician variability, etc.

Each year, IDEM's air monitoring laboratory calculates MDLs for each of the sixty-two compounds that are part of the ToxWatch database. Due to the age of some of the data, MDLs were no longer available for certain years or certain compounds. In cases where MDLs were no longer available, 97.5% of the lowest value detected for that year was chosen as the MDL. Table 1.2 shows the MDLs used in this analysis. Values in dark-shaded boxes were derived using the method described above.

Table 1.2 - Method Detection Limits (MDLs)

Pollutant	CAS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Acetone	67-64-1				0.441	0.928	0.231	0.694	0.113	0.436	0.254
Acrolein	107-02-8								0.112	0.542	0.178
Benzene	71-43-2	0.249	0.447	0.256	0.28	0.28	0.337	0.0955	0.135	0.0903	0.1
Benzyl Chloride	100-44-7				0.455	0.707	0.635	3.65	0.398	0.188	0.0614
Bromodichloromethane	75-27-4						0.707	0.362	0.159	0.321	0.145
Bromoform	75-25-2						1.07	0.989	0.361	0.558	0.437
Bromomethane	74-83-9		0.349	0.388	0.416	0.416	0.481	0.378	0.0652	0.609	0.172
1,3-Butadiene	106-99-0				0.603	0.668	0.0971	0.116	0.175	0.181	0.0743
Carbon Disulfide	75-15-0				0.455	0.455	0.282	0.16	0.113	0.137	0.143
Carbon Tetrachloride	56-23-5		0.692	0.818			0.747	0.252	0.252	0.106	0.24
Chlorobenzene	108-90-7	0.538	0.414	0.184			0.61	0.212	0.109	0.0998	0.176
Chloroethane	75-00-3	0.952	0.633	0.237	0.695	0.798	0.45	0.451	0.104	0.727	0.158
Chloroform	67-66-3		0.83	0.195			0.504	0.121	0.303	0.121	0.116
Chloromethane	74-87-3	0.221	0.227	0.289	0.241	0.321	0.279	0.129	0.0617	0.0735	0.0583
Cyclohexane	100-82-7	0.201	0.201	0.201	0.235	0.235	0.31	0.139	0.123	0.105	0.0817
Dibromochloromethane	124-48-1						0.97	0.421	0.286	0.481	0.325
1,2-Dibromoethane	106-93-4		0.845	0.768			0.867	0.139	0.258	0.761	0.118
m-Dichlorobenzene	541-73-1	0.352	0.301	0.481	0.82	0.352	0.623	0.289	0.264	0.0921	0.13
p-Dichlorobenzene	106-46-7	0.293	0.24	0.541	0.352	0.41	1.01	0.357	0.26	0.143	0.154
o-Dichlorobenzene	95-50-1		0.361	0.481			0.814	0.434	0.189	0.101	0.24
Dichlorodifluoromethane	75-71-8	0.772	0.297	0.198	0.386	0.531	0.503	0.155	1.48	0.0758	0.083
1,1-Dichloroethane	75-34-3		0.405	1.3			0.415	0.265	0.192	0.141	0.0961
1,2-Dichloroethane	107-06-2		0.283	0.486			0.401	0.269	0.147	0.192	0.062
t-1,2-Dichloroethene	156-60-5						0.397	0.133	0.282	0.167	0.0607
c-1,2-Dichloroethene	156-59-2		0.515	0.396			0.413	0.188	0.144	0.112	0.0941
Dichloromethane	75-09-2	0.338	0.347	0.382	0.372	0.372	0.318	0.147	0.121	0.175	0.0753
1,2-Dichloropropane	78-87-5	0.676	0.647	0.323			0.462	0.251	0.141	0.114	0.1
c-1,3-Dichloropropene	10061-01-3		1.18	0.545			0.415	0.192	0.216	0.256	0.192
t-1,3-Dichloropropene	10061-02-6		0.772	0.408			0.472	0.152	0.29	0.273	0.283
Dichloro-Tetrafluoroethane	76-14-2	0.818	0.559	0.419		1.77	0.355	0.235	2.13	0.235	0.117
1,4-Dioxane	123-91-1				3.09		0.599	0.85	0.352	0.11	0.0924
Ethanol	64-17-5				0.589	1.23	0.246	0.846	0.352	0.948	0.174
Ethyl Acetate	141-78-6				0.176	0.176	0.311	0.35	0.182	0.142	0.126
Ethylbenzene	100-41-4	0.0846	0.304	0.261	0.127	0.127	0.503	0.204	0.103	0.0787	0.171
p-Ethyltoluene	622-96-8	0.192	0.192	0.192	0.24	0.24	0.427	0.194	0.231	0.139	0.139
Heptane	142-82-5	0.12	0.12	0.12	0.16	0.16	0.492	0.207	0.208	0.173	0.101
Hexachlorobutadiene	87-68-3		0.747	1.07	1.46		0.594	1.06	0.38	0.462	0.327
Hexane	110-54-3	0.172	0.172	0.172	0.206	0.206	0.378	0.238	0.156	0.149	0.0764
Isopropanol	67-63-0				0.384	0.384	0.309	0.462	0.438	0.308	0.0533
Methyl Ethyl Ketone	78-93-3				0.489	0.489	0.103	0.231	0.26	0.346	0.353

Pollutant	CAS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Methyl Isobutyl Ketone	108-10-1				2.04	172	0.369	0.569	0.278	0.156	0.0972
Methyl n-Butyl Ketone	591-78-6				2.08	2.24	0.265	0.455	0.354	0.126	0.0972
Methyl Tert-Butyl Ether	1634-04-4				0.246	0.282	0.412	0.295	0.131	0.178	0.113
Propene	115-07-1	0.587	0.101	0.117	0.0335	0.0335	0.376	3.42	2.31	0.0527	0.0514
Styrene	100-42-5	0.249	0.213	0.383	0.291	0.291	0.663	0.202	0.34	0.18	0.105
1,1,2,2-Tetrachloroethane	79-34-5		0.412	0.481			0.698	4.54	0.367	0.21	0.115
Tetrachloroethene	127-18-4	1.39	0.746	0.407	0.992	0.925	0.791	0.301	0.326	0.147	0.228
Tetrahydrofuran	109-99-9				0.23	0.259	0.15	0.59	0.118	0.125	0.193
Toluene	108-88-3	0.11	0.339	0.264	0.147	0.147	0.493	0.137	0.127	0.0895	0.0817
Trichlorotrifluoroethane	76-13-1	0.448	0.46	0.307	0.523	0.523	0.839	0.414	0.307	0.217	0.166
1,2,4-Trichlorobenzene	120-82-1	0.468	0.445	0.535	0.468		3.9	0.704	0.297	0.419	0.367
1,1,1-Trichloroethane	71-55-6	2.24	0.818	0.982	1.01		0.537	0.242	0.218	0.154	0.118
1,1,2-Trichloroethane	79-00-5	0.799	0.436	0.546			0.705	0.413	0.135	0.167	0.183
Trichloroethene	79-01-6	0.838	0.806	0.322	1.2	0.89	0.549	0.304	0.133	0.128	0.195
Trichlorofluoromethane	75-69-4	0.493	0.506	0.843	0.548	0.548	0.682	0.172	0.144	0.139	0.0943
1,3,5-Trimethylbenzene	108-67-8	0.288	0.246	0.393	0.336	0.384	0.647	0.216	0.342	0.175	0.208
1,2,4-Trimethylbenzene	95-63-6	0.336	0.295	0.295	0.384	0.432	0.388	0.207	0.33	0.121	0.196
Vinyl Acetate	108-05-4								0.137	0.325	0.358
Vinyl Chloride	75-01-4		0.511	0.281			0.0607	0.22	0.153	0.0858	0.0975
Vinylidene Chloride	75-35-4		0.357	0.238			0.358	0.619	0.196	0.121	0.112
o-Xylene	95-47-6	0.423	0.261	0.304	0.465	0.465	0.527	0.107	0.155	0.0665	0.103
m+p-Xylenes	106-42-3	0.0846	1.82	1.17	0.127	0.127	3.24	1.21	0.283	0.55	0.599

For calculation of exposure point concentrations (EPCs), any data point in the database that was reported as "ND" or "BDL" was replaced by the appropriate MDL from the year the sample was taken. In order to be consistent with how ProUCL handles calculation of Kaplan-Meier estimates of the mean, IDEM chose to censor the datasets at the lowest detection rather than the detection limit when calculating EPCs. The result of this decision is to bias the EPCs slightly higher than they would have been if the appropriate detection limit was chosen. For more information on how EPCs were calculated, see section 1.1.3, "Exposure Point Concentrations."

For trend analysis, half of the lowest MDL reported by the laboratory was used to represent all ND and BDL values. This was done in order to prevent changing MDLs from obscuring the true trend of the data. For more information on how the trend analysis was conducted, see Section 1.1.4, "Trend Analysis."

A correlation analysis was also conducted in order to see what, if any, relationship exists between chemicals at each monitoring location. Non-detects where handled the same way for correlation analysis as they were for trend analysis.

Another important aspect of MDLs to consider when analyzing data is whether the MDLs are low enough to measure safe concentrations of pollutants. In many cases, the MDL for a compound is above the health protective concentration for that compound. When this is the case, it is impossible to determine that a pollutant does not pose a risk to human health. On the other hand, if there were no detections of a pollutant and its MDL is below the health protective concentration, it can be said with relative certainty that the compound does not pose a risk to human health. Figures 1.2 and 1.3 graphically depict

the hazard quotients and risk estimates associated with MDLs for the compounds in the ToxWatch database.

Figure 1.2 – Hazard Indices Associated with Concentrations Equal to the Median MDL
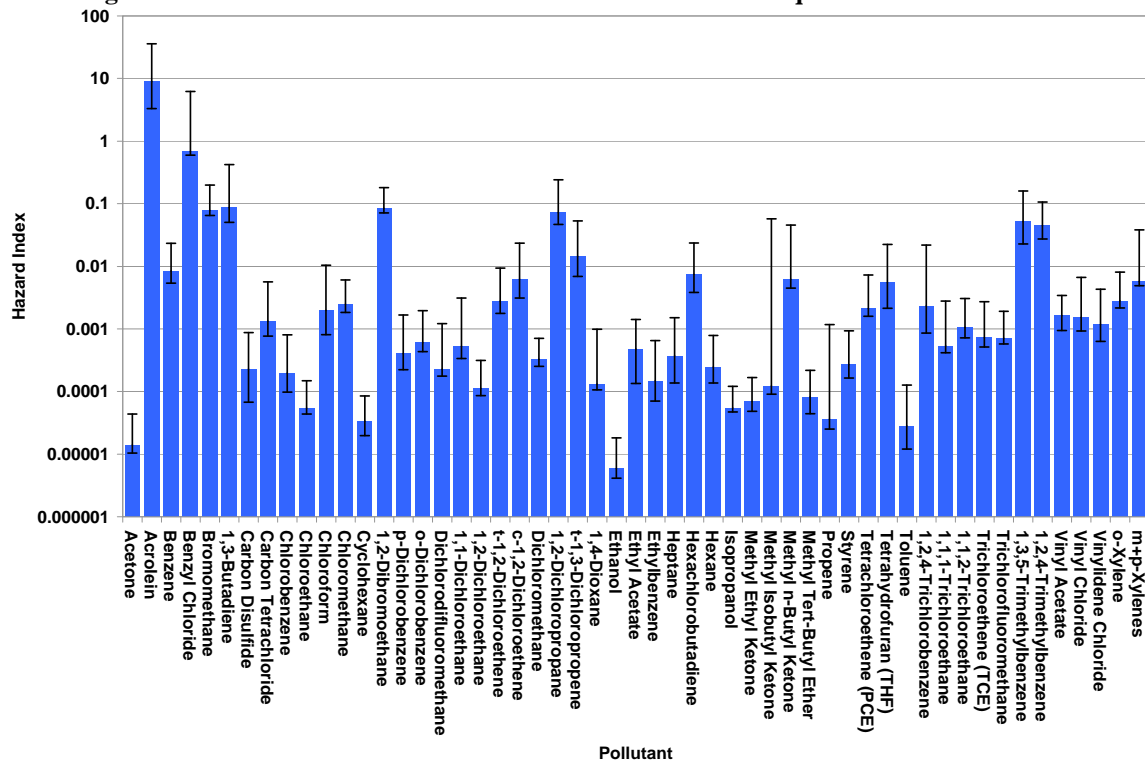
Figure 1.3 – Cancer Risk Estimates Associated with Concentrations Equal to the Median MDL
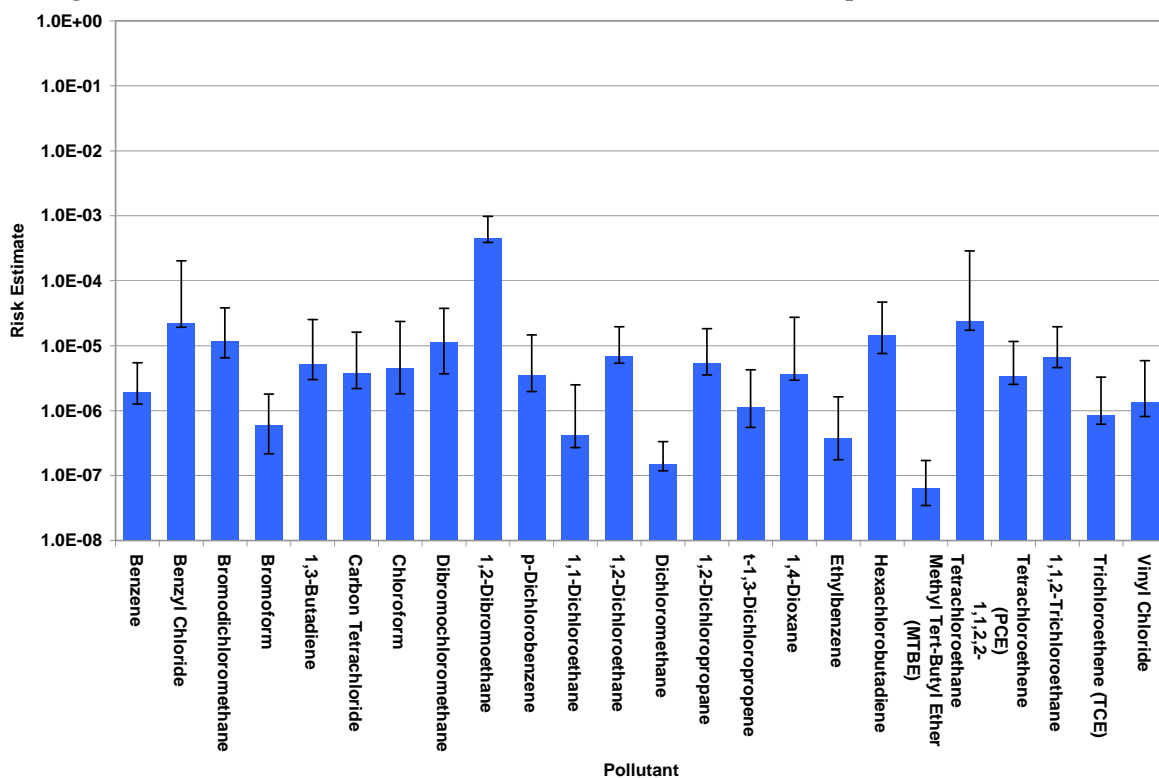
The error bars represent the non-carcinogenic hazard or the carcinogenic risk posed by the minimum and maximum MDLs in the dataset. As Figure 1.2 shows, only acrolein has an MDL above the health protective level of 1.0, preventing a definitive determination of hazard from being made. This is due more to acrolein's low reference concentration than to any problem with the sampling or analysis of the compound.

The MDLs' relations to cancer risk estimates are a different story however. U.S. EPA has set a cancer risk of 1 in 1,000,000 as a level that can be considered negligible. However, nearly all of the carcinogens in the ToxWatch database have median MDLs that represent a concentration that exceeds this threshold. One compound, 1,2-dibromoethene, has an MDL that even exceeds the 1 in 10,000 threshold which is the high end of the acceptable risk range set forth by U.S. EPA.

It is important to realize that it is highly unlikely that the true concentrations of samples that are reported as ND or BDL are at or near the MDL. In many cases, the true concentration may be many orders of magnitude below the MDL. Therefore, it should not be assumed that just because a compound's MDL is above the health protective level, the compound poses a threat to human health.

1.1.7 Cancer Risk Levels

At several points in this report, cancer risk levels of 1-in-1,000,000, 100-in-1,000,000, and the range in-between are given special note. U.S. EPA has set this as the acceptable cancer risk range as a matter of policy. Risks below 1-in-1,000,000 are considered negligible. When they are encountered in a screening analysis, no further action is generally taken. Risk levels above 100-in-1,000,000 are often considered the point when additional action should be considered. In between 1-in-1,000,000 and 100-in-1,000,000 is the range in which further work may be necessary including better refinement of the risk analysis. In analyses such as the ToxWatch report where very conservative (i.e., health protective) assumptions have been made, this type of refinement will usually result in lower cancer risks being calculated.

1.2 SPECIAL ISSUES CONCERNING THE ANALYSIS OF ACROLEIN

1.2.1 Acrolein as a National Issue

One of the first results of U.S. EPA's ambient air monitoring program at schools was the discovery of potentially alarming levels of acrolein at several schools across the nation. These results have led many people around the nation to take a closer look at acrolein. This scrutiny has revealed potential problems with both the monitoring and analysis of acrolein. These issues have yet to be resolved but seem to indicate that problems may exist with how sampling for acrolein is conducted. IDEM is closely monitoring these issues and may modify procedures in the future based on the results of this national debate.

An analysis of acrolein data in U.S. EPA's Air Quality System (AQS) database reveals that, while Indiana is above average in its concentrations of acrolein (average hazard

quotient of 91), it is still within the range of values seen across the nation (average hazard quotient of 53). It is important to note when looking at these data that Indiana places its monitors in urban environments where it suspects air toxics concentrations may be highest. This is not necessarily the case with other states. For example, the monitoring location that showed the lowest acrolein concentrations in the nation is located at Niwot Ridge Long Term Ecological Research Site in Colorado. This location is approximately 35 km from the nearest major city (Boulder) and is at an elevation of greater than 3,000 m. It should also be noted that despite its remote and relatively pristine location, it still had an acrolein hazard quotient of 1.6.

1.2.2   Issues with Acrolein Analysis in Indiana

Because of acrolein's extremely high hazard quotients, additional analysis was conducted to determine whether concentrations in Indiana were out of line with those in other states. Initial results indicated that 8 of the 10 highest acrolein exposure concentrations in the nation occurred in Indiana. IDEM's Air Toxics Monitoring Section was asked to investigate the data further to determine if an explanation for these high readings could be found. Their investigation identified a period from March to April 2007 during which the reported concentrations of acrolein were suspect.

The Air Toxics Monitoring Section suspected that the 2007 data might have been affected by a systematic error that caused all acrolein concentrations to be reported higher than the true concentration. Staff of the Air Toxics Monitoring Section reviewed all analytical methods associated with the measurement of acrolein in 2007 in order to find the source of the error. The staff members found that in the period of March-April 2007, the section had been using a TO-15 standard that contained acrolein in the standard mixture at concentrations lower than reported. The reported concentration of acrolein in the standard mixture was 100ppb; however, it appears that the actual acrolein concentration in this standard was much lower than reported. The continuing calibration abundance of 2.5ppb of acrolein on the GC/MS system used in 2007 for the analysis of TO-15 samples is shown below, as well as the approximate response factor (the abundance calculated for a 1 ppb amount of acrolein).

Table 1.3 – 2007 GC/MS Response Factors for Acrolein

Time Period	Response Abundance of 2.5 ppbv acrolein on GC/MS	Response Factor
Jan-Feb 2007	52,000 – 70,000 abundance	24,400
Mar-Apr 2007	1,200 – 2,250 abundance	750
May-Dec 2007	55,000 – 67,000 abundance	24,400

Table 1.3 shows that during the period of March-April 2007, a standard was being used by IDEM's laboratory that contained far less acrolein than what was stated on the certificate of analysis for the standard. This caused the lab to over-report the concentration of acrolein in the affected samples by a factor of approximately 32.5.

Currently, due to the uncertainties of how acrolein reacts with other compounds in a mixture, a separate standard is maintained for acrolein, and mixed with the TO-15 standard immediately before analysis to minimize the possibility of acrolein reacting with other compounds in the standard. This procedure is different from the process used in many other laboratories, but IDEM feels that it yields more accurate and cost-effective results for acrolein.

As a result of this investigation, acrolein data for all monitoring locations in March and April 2007 have been invalidated and removed from the ToxWatch analysis. This resulted in most Hazard Quotients calculated for acrolein being reduced by approximately half.

SECTION 2.0

TOXWATCH MONITORING LOCATIONS

TABLE OF CONTENTS

2.0 INTRODUCTION

Section 2 provides detailed findings for each of the ten monitoring locations that were included in the analysis. General site information for each site is given, including:

- The address where the monitor is located,
- The period during which it was sampled,
- Basic information about its siting,
- Any major sources of emissions in the area, and
- A map showing the general location of the monitor

Part 2 provides information about the meteorology of the area where the monitor is located. This includes information such as average wind speed, precipitation, wind direction, etc. This section also includes a wind rose, which helps illustrate how wind speed and wind direction changes.

Part 3 contains information pertaining to the risks and hazards posed by pollutants at the monitoring location. Part 3 contains three tables and three graphs. The first table and graph illustrate the non-carcinogenic hazards posed by pollutants monitored at the site. The second table and graph show the risk posed by carcinogenic pollutants at the site. Both of these tables also provide the sample size and detection rate for each pollutant so that the reader may make informed decisions about the quality of any given hazard quotient or risk estimate. The final graph and table illustrates the critical effects analysis performed at each site. The table lists each pollutant with its calculated hazard quotient in each of four critical effects categories for which it fits. These categories include:

- Respiratory – Any critical effect that relates to the nose, respiratory tract, or lungs
- Neurological – Any critical effect that impairs mental judgment, and/or affects the brain, central nervous system, or secondary nervous system
- Reproductive – Any critical effect that interferes with the process of reproduction; either by hindering the ability of the parents to reproduce, or by interfering with the normal development of offspring
- Other – Any critical effect that does not fit into one of the previous categories

Some pollutants have multiple critical effects. In those cases, the pollutant was added to all categories for which it fit. For any pollutant that the critical effect could not be identified, the pollutant was added to all critical effect categories, to insure an adequately conservative estimate.

Part 4 provides information about concentrations and trends at the monitoring location. This part includes two tables, and a set of graphs. The graphs show daily concentrations for any pollutant for which a 90% two-tail Mann-Kendall trend analysis indicated an increasing trend. The first table shows summary data for all pollutants at the monitoring location for the entire sampling period. These data include:

- The pollutants' names and CAS numbers,
- The detection rate and sample size for each pollutant,

- The results of the Mann-Kendal trend analysis,
- The arithmetic mean of each dataset when Kaplan-Meier is used to handle samples below the detection limit,
- The standard deviation of each dataset when Kaplan-Meier is used to handle samples below the detection limit,
- The maximum detected value observed for each pollutant at the monitoring location,
- The 97th percentile of the dataset for each pollutant, and
- The 95% upper confidence level of the mean (UCL) of each pollutant's dataset, which is used as the exposure point concentration (EPC) for the pollutant at the monitor.

Part 5 is a comparison of 2002 monitoring results to the 2002 National Air Toxics Assessment (NATA). Kaplan-Meier means were calculated using only monitoring results for 2002 and these were then compared to modeled concentrations for the census tracts that contained the monitors' reported addresses in 2002. Only about 2/3 of the monitored pollutants were analyzed in NATA, and then fewer still had measurable concentrations in the monitoring results. As a result, most monitoring locations only have 6-8 pollutants with which a direct comparison could be made between ToxWatch and NATA.

2.1 EAST CHICAGO

2.1.1 INTRODUCTION

The East Chicago – Aldis St. monitor is located at the Water Filtration Plant, 3330 Aldis St., East Chicago, IN, 46312. It has been monitoring air toxics concentrations from 1999 through the present day. The East Chicago – Aldis St. monitor is located in the northwestern portion of the state in Lake County. This area of Indiana is one of the most heavily industrialized areas of the county. Large emitters of air toxics within Lake County include the U.S. Gary Works facility, the State Line Generating Plant and the BP Products Whiting Facility.
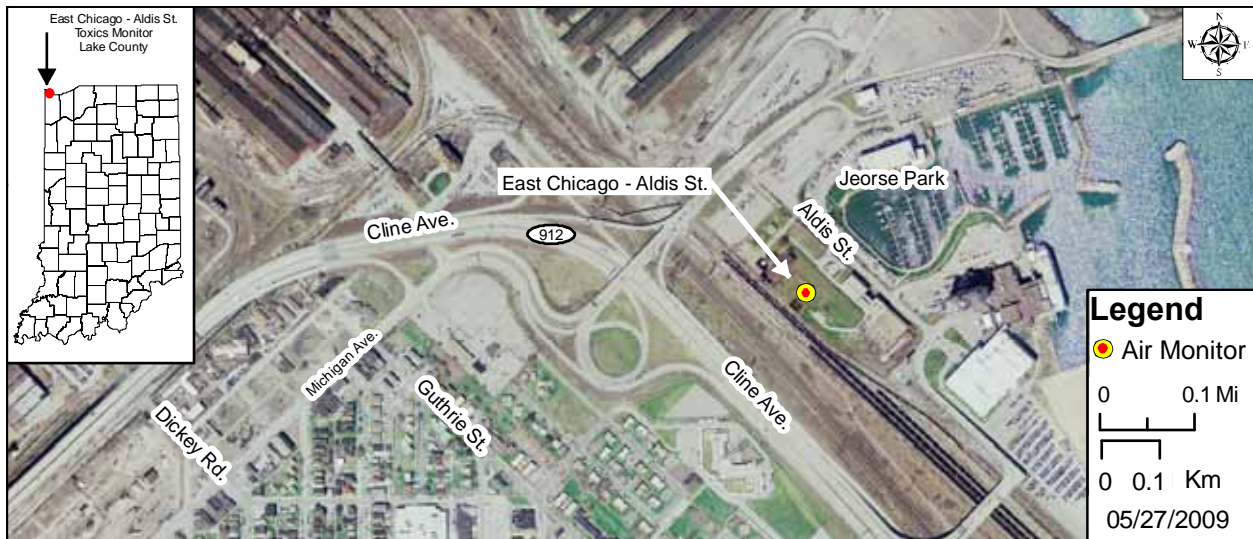
Figure 2.1.1 Map of East Chicago Monitoring Location and Surrounding Area

2.1.2 METEOROLOGY

East Chicago's meteorology and climate is largely influenced by the proximity of Lake Michigan to the north and northeast of the city. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby land water temperature in the late spring through early fall, and its warmer-than-the nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. The East Chicago region averages approximately 40 inches of snow per year. Deep snow cover
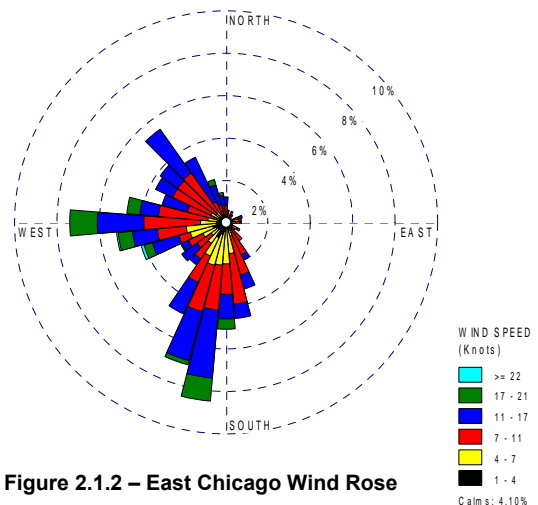
Figure 2.1.2 – East Chicago Wind Rose

during the winter months can help contribute to temperature inversions and consequently a reduction in the atmospheric mixing of ground level pollutants leading to an increase in concentrations.

The annual wind rose (Figure 2.1.2) shows the predominant wind direction is from a south southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months can create recirculation patterns that lead to higher pollutant concentrations, especially ozone. Calm winds were reported approximately four percent of the time during the year 2008.

2.1.3   RISKS AND HAZARDS

Five out of seven carcinogens at the East Chicago monitor for which risk estimates could be calculated exceed the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.1.2. Of these, only benzyl chloride exceeded a risk estimate of 10-in-1,000,000. However, there appears to be some issues with benzyl chloride's dataset that call into question these results. Please see section 3.4 for more information on benzyl chloride. Other carcinogens which exceed the 1-in-1,000,000 risk level at the East Chicago monitor include benzene, 1,3-butadiene, carbon tetrachloride, and p-dichlorobenzene. Dichloromethane and ethylbenzene both had risk estimates slightly less than 1-in-1,000,000. See Graph 2.1.2 for a visual comparison of risks posed by these pollutants at the East Chicago monitor.

As with all areas of the state, acrolein dwarfs all other air toxics in relation to a calculated hazard quotient. IDEM began monitoring for acrolein in 2006 so there are only 3 years of monitoring data for the pollutant. However, based on this dataset, acrolein has a hazard quotient at the East Chicago monitor of 100. This hazard quotient is neither extremely high nor extremely low compared to other monitoring locations in the study. The second highest hazard in East Chicago is posed by benzyl chloride with a ten-year hazard quotient of 0.85, but, as mentioned above, there are some questions concerning the validity of the benzyl chloride monitoring data. When you remove these two pollutants from consideration, the hazard index for all other pollutants combined is only 0.4. This is well within health protective levels. This indicates that, from a noncarcinogenic standpoint, the only concerns stem from acrolein, and to a much lesser extent, possibly benzyl chloride. See Table 2.1.1 and Graph 2.1.1 for comparisons of non-carcinogenic hazard quotients.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.22, for neurological effects. About ¾ of this hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.1.3 and Graph 2.1.3 for more information on the critical effects analysis at the East Chicago monitor.

The risks and hazards posed by ToxWatch pollutants at the East Chicago monitor are neither exceptionally high, nor exceptionally low when compared to other ToxWatch monitoring locations within the state.

Table 2.1.1 - Hazard Quotients for East Chicago Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	89.9%	387	0.00003
Acrolein	107-02-8	84.2%	120	100
Benzene	71-43-2	91.7%	504	0.031
Benzyl Chloride	100-44-7	8.3%	387	0.85
Bromomethane	74-83-9	16.8%	475	0.066
1,3-Butadiene	106-99-0	8.3%	387	0.055
Carbon Disulfide	75-15-0	11.6%	387	0.00029
Carbon Tetrachloride	56-23-5	10.5%	363	0.0013
Chloromethane	74-87-3	82.9%	504	0.011
Cyclohexane	100-82-7	38.5%	504	0.000068
p-Dichlorobenzene	106-46-7	10.3%	504	0.00030
Dichlorodifluoromethane (F-12)	75-71-8	88.9%	504	0.0017
Dichloromethane	75-09-2	27.4%	504	0.00031
Ethanol	64-17-5	80.4%	387	0.00030
Ethyl Acetate	141-78-6	39.5%	387	0.0015
Ethylbenzene	100-41-4	61.9%	504	0.00036
Hexane	110-54-3	78.0%	504	0.0012
Isopropanol	67-63-0	55.6%	387	0.00011
Methyl Ethyl Ketone (MEK)	78-93-3	89.9%	387	0.00048
Methyl Isobutyl Ketone (MIBK)	108-10-1	16.3%	387	0.000090
Methyl n-Butyl Ketone (MBK)	591-78-6	23.3%	387	0.011
Propene	115-07-1	91.1%	504	0.00077
Styrene	100-42-5	23.2%	504	0.00043
Tetrahydrofuran (THF)	109-99-9	11.9%	387	0.0057
Toluene	108-88-3	95.2%	504	0.00074
Trichlorofluoromethane (F-11)	75-69-4	88.9%	504	0.0016
1,3,5-Trimethylbenzene	108-67-8	13.3%	504	0.065
1,2,4-Trimethylbenzene	95-63-6	43.1%	504	0.11
Vinyl Acetate	108-05-4	79.5%	127	0.022
o-Xylene	95-47-6	32.9%	504	0.0049
m+p-Xylenes	106-42-3	77.8%	504	0.011

Table 2.1.2 – Cancer Risk Estimates for East Chicago Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	91.7%	504	7.2×10^{-06}
Benzyl Chloride	100-44-7	8.3%	387	2.7×10^{-05}
1,3-Butadiene	106-99-0	8.3%	387	3.3×10^{-06}
Carbon Tetrachloride	56-23-5	10.5%	363	3.8×10^{-06}
p-Dichlorobenzene	106-46-7	10.3%	504	2.6×10^{-06}
Dichloromethane	75-09-2	27.4%	504	1.5×10^{-07}
Ethylbenzene	100-41-4	61.9%	504	9.0×10^{-07}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read 7.3×10^{-06} as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.1.1 - Hazard Quotients for East Chicago Monitor 1999-2008
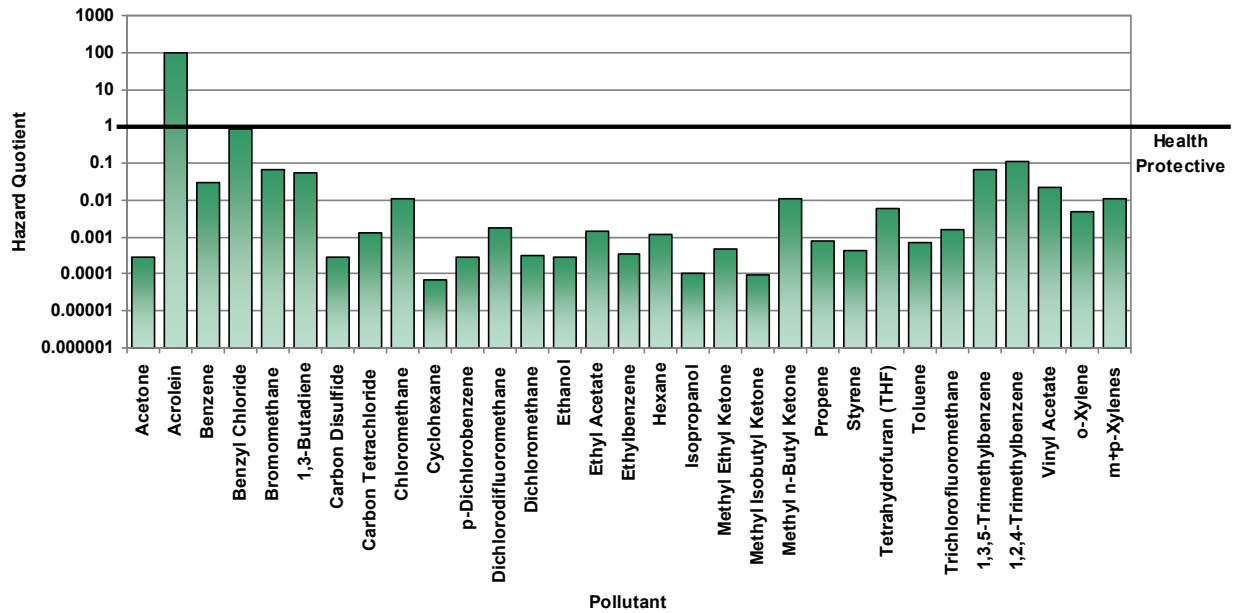
Graph 2.1.2 – Cancer Risk Estimates for East Chicago Monitor 1999-2008
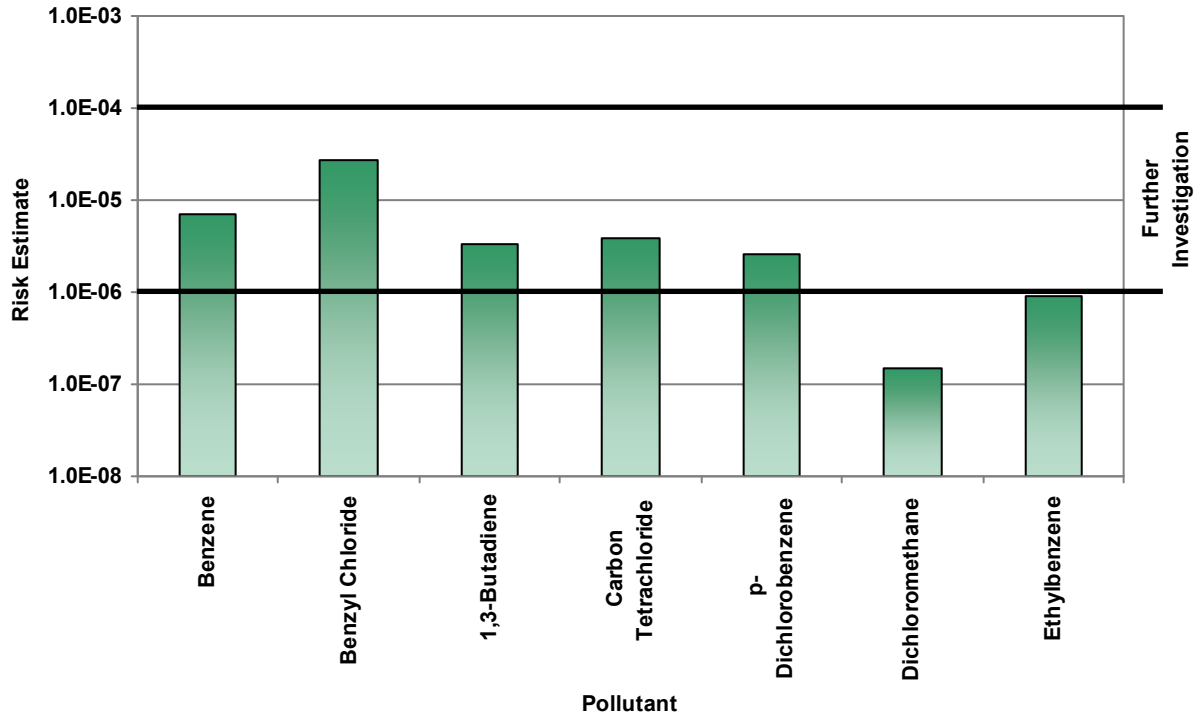
Table 2.1.3 - Critical Effects Analysis for East Chicago Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.066	Acetone	67-64-1	0.00030
Dichlorodifluoromethane (F-12)*	75-71-8	0.0017	Carbon Disulfide	75-15-0	0.00029
Ethanol*	64-17-5	0.00030	Chloromethane	74-87-3	0.011
Methyl n-Butyl Ketone (MBK)	591-78-6	0.011	Dichlorodifluoromethane (F-12)*	75-71-8	0.0017
Propene	115-07-1	0.00077	Ethanol*	64-17-5	0.00030
Tetrahydrofuran (THF)	109-99-9	0.0057	Hexane	110-54-3	0.0012
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Methyl n-Butyl Ketone (MBK)	591-78-6	0.011
Vinyl Acetate	108-05-4	0.022	Styrene	100-42-5	0.00043
			Toluene	108-88-3	0.00074
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
			1,3,5-Trimethylbenzene	108-67-8	0.065
			1,2,4-Trimethylbenzene	95-63-6	0.11
			o-Xylene	95-47-6	0.0049
			m+p-Xylenes	106-42-3	0.011
Hazard Index		**0.11**	**Hazard Index**		**0.22**
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
1,3-Butadiene	106-99-0	0.055	Benzene	71-43-2	0.031
Cyclohexane	100-82-7	0.000068	Carbon Tetrachloride	56-23-5	0.0013
p-Dichlorobenzene	106-46-7	0.00030	Dichlorodifluoromethane (F-12)*	75-71-8	0.0017
Dichlorodifluoromethane (F-12)*	75-71-8	0.0017	Dichloromethane	75-09-2	0.00031
Ethanol*	64-17-5	0.00030	Ethanol*	64-17-5	0.00030
Ethylbenzene	100-41-4	0.00036	Ethyl Acetate	141-78-6	0.0015
Isopropanol	67-63-0	0.00011	Isopropanol	67-63-0	0.00011
Methyl Ethyl Ketone (MEK)	78-93-3	0.00048	Methyl n-Butyl Ketone (MBK)	591-78-6	0.011
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.000090	Tetrahydrofuran (THF)	109-99-9	0.0057
Methyl n-Butyl Ketone (MBK)	591-78-6	0.011	Trichlorofluoromethane (F-11)*	75-69-4	0.0016
Trichlorofluoromethane (F-11)*	75-69-4	0.0016			
Hazard Index		**0.070**	**Hazard Index**		**0.050**

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.1.3 - Critical Effect Analysis for East Chicago Monitor 1999-2008
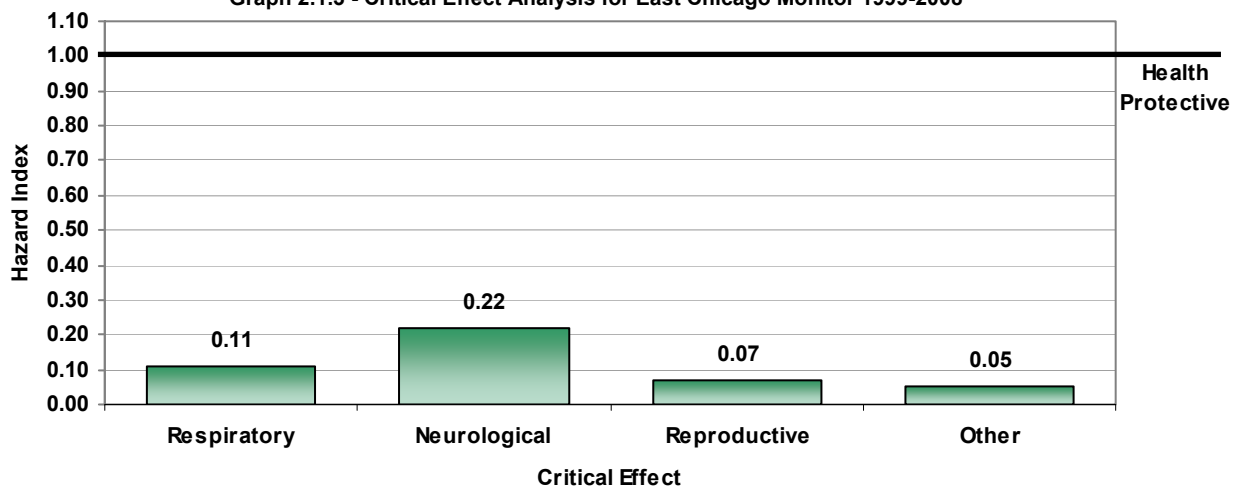
2.1.4   CONCENTRATIONS AND TRENDS

Pollutant concentrations have been trending downwards at the East Chicago monitor over the last decade. Of the twenty-three (23) pollutants at East Chicago which had detection rates sufficient to calculate some form of concentration trend, fifteen (15) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Four (4) showed no discernable trend and four (4) showed an increasing trend. Table 2.1.4 shows pertinent summary data about concentrations and trends at the East Chicago monitor. Graph 2.1.4 displays the daily concentrations of those pollutants with an increasing trend at the East Chicago monitor. Table 2.1.5 shows yearly exposure point concentrations for the East Chicago monitor.

Graph 2.1.4 Pollutants with an Increasing Concentration Trend at East Chicago Monitor 1999-2008
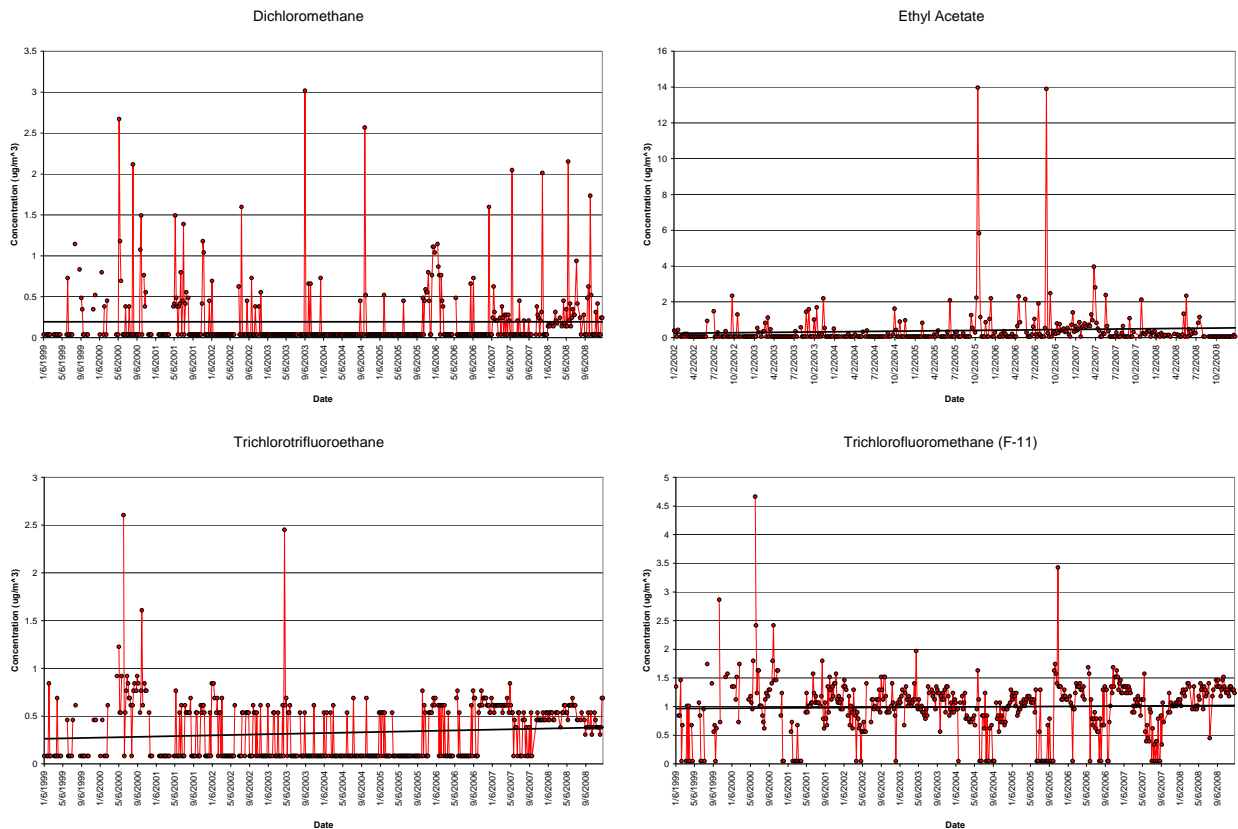
Table 2.1.4 – Concentrations and Trends Summary for East Chicago Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	89.9%	387	↘	8.6	7.7	56	26	9.3
Acrolein	107-02-8	84.2%	120	↔	1.8	1.7	8.8	6.6	2.1
Benzene	71-43-2	91.7%	504	↘	0.87	0.69	7.8	2.3	0.92
Benzyl Chloride	100-44-7	8.3%	387		0.53	0.32	3.6	3.6	0.56
Bromomethane	74-83-9	16.8%	475		0.32	0.24	2.1	0.81	0.33
1,3-Butadiene	106-99-0	8.3%	387		0.10	0.089	1.3	0.67	0.11
Carbon Disulfide	75-15-0	11.6%	387		0.19	0.14	1.3	0.57	0.20
Carbon Tetrachloride	56-23-5	10.5%	363		0.23	0.19	2.1	0.82	0.25
Chloromethane	74-87-3	82.9%	504	↔	0.90	1.0	14	2.0	0.98
Cyclohexane	100-82-7	38.5%	504	↘	0.30	1.4	30	0.89	0.41
p-Dichlorobenzene	106-46-7	10.3%	504		0.23	0.21	3.0	1.0	0.24
Dichlorodifluoromethane (F-12)	75-71-8	88.9%	504	↔	2.3	3.9	80	3.7	2.6
Dichloromethane	75-09-2	27.4%	504	↗	0.28	0.35	3.0	1.1	0.31
1,4-Dioxane	123-91-1	4.6%	329				3.1	3.1	
Ethanol	64-17-5	80.4%	387	↘	28	31	180	110	30
Ethyl Acetate	141-78-6	39.5%	387	↗	0.44	1.1	14	2.2	0.54
Ethylbenzene	100-41-4	61.9%	504	↘	0.32	0.52	6.7	1.1	0.36
p-Ethyltoluene	622-96-8	26.2%	504	↘	0.29	0.33	3.9	0.98	0.31
Heptane	142-82-5	73.2%	504	↘	0.45	0.65	9.2	1.5	0.50
Hexane	110-54-3	78.0%	504	↘	0.76	0.95	13	2.6	0.83
Isopropanol	67-63-0	55.6%	387	↔	0.68	0.83	7.3	2.7	0.75
Methyl Ethyl Ketone (MEK)	78-93-3	89.9%	387	↔	2.2	2.2	24	5.8	2.4
Methyl Isobutyl Ketone (MIBK)	108-10-1	16.3%	387		0.23	0.37	170	170	0.27
Methyl n-Butyl Ketone (MBK)	591-78-6	23.3%	387		0.45	1.8	30	2.2	0.61
Propene	115-07-1	91.1%	504	↘	2.0	2.9	30	9.8	2.3
Styrene	100-42-5	23.2%	504		0.35	1.1	20	1.6	0.43
Tetrahydrofuran (THF)	109-99-9	11.9%	387		0.18	0.13	1.4	0.59	0.20
Toluene	108-88-3	95.2%	504	↘	2.6	14	290	7.2	3.7
Trichlorotrifluoroethane	76-13-1	47.0%	504	↗	0.47	0.23	2.6	0.84	0.48
1,1,1-Trichloroethane	71-55-6	0.4%	446				2.3	2.2	
Trichloroethene (TCE)	79-01-6	2.6%	504				5.1	1.2	
Trichlorofluoromethane (F-11)	75-69-4	88.9%	504	↗	1.0	0.42	4.7	1.6	1.1
1,3,5-Trimethylbenzene	108-67-8	13.3%	504		0.36	0.39	6.8	0.69	0.39
1,2,4-Trimethylbenzene	95-63-6	43.1%	504	↘	0.69	1.3	11	4.1	0.79
Vinyl Acetate	108-05-4	79.5%	127	↘	3.7	5.6	39	16	4.5
Vinylidene Chloride	75-35-4	0.8%	363				2.8	0.62	
o-Xylene	95-47-6	32.9%	504	↘	0.40	1.2	18	1.3	0.49
m+p-Xylenes	106-42-3	77.8%	504	↘	0.94	1.8	27	3.2	1.1

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.1.5 – Yearly Exposure Point Concentrations for East Chicago Monitor 1999-2008

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1				12	13	10	7.4	14	8.2	5.9
Acrolein	107-02-8								3.6	1.9	2.0
Benzene	71-43-2	1.4	1.0	1.4	1.1	0.86	0.79	1.0	1.3	0.98	0.78
Benzyl Chloride	100-44-7						0.74	1.4			
Bromomethane	74-83-9						0.58	0.62	0.66		0.32
1,3-Butadiene	106-99-0										0.14
Carbon Disulfide	75-15-0					0.64				0.19	0.21
Carbon Tetrachloride	56-23-5									0.33	
Chlorobenzene	108-90-7	0.86									
Chloroethane	75-00-3		0.79								
Chloroform	67-66-3									0.15	0.15
Chloromethane	74-87-3	0.88	1.5	0.89	2.3	0.87	0.45	0.85	1.2	0.89	0.87
Cyclohexane	100-82-7	0.45	0.48	0.48	0.40		0.60	0.59	0.31	1.7	0.19
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7		0.43							0.45	0.33
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.6	3.0	2.2	6.9	2.2	1.5	2.1	2.5	2.2	2.6
Dichloromethane	75-09-2	0.48	0.74	0.54	0.47			0.54	0.51	0.39	0.40
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2										
1,4-Dioxane	123-91-1									0.26	0.15
Ethanol	64-17-5				41	71	24	14	26	24	39
Ethyl Acetate	141-78-6				0.42	0.47	0.33	1.2	1.2	0.73	0.36
Ethylbenzene	100-41-4	0.61	0.66	0.95	0.27	0.26	0.68	0.28	0.33	0.22	0.29
p-Ethyltoluene	622-96-8	0.42	0.61	0.85				0.35	0.29	0.23	
Heptane	142-82-5	0.63	1.2	1.2	0.43	0.27	0.55	0.31	0.64	0.43	0.42
Hexane	110-54-3	1.4	1.5	1.4	1.0	0.5	1.2	0.72	0.95	0.62	0.81
Isopropanol	67-63-0				1.2	0.94	0.83	0.77	1.3	0.99	0.68
Methyl Ethyl Ketone (MEK)	78-93-3				2.2	2.2	2.4	3.4	3.4	2.0	2.9
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.42	0.21
Methyl n-Butyl Ketone (MBK)	591-78-6							4.1		0.66	0.30
Propene	115-07-1	2.7	3.8	3.0	4.3	3.5	1.7	2.5	2.4	1.0	1.6
Styrene	100-42-5	1.4	2.5	0.70				0.35	0.38	0.29	0.20
Tetrachloroethene (PCE)	127-18-4									0.22	
Tetrahydrofuran (THF)	109-99-9						0.36	0.43		0.22	0.32
Toluene	108-88-3	3.4	25	8.5	1.7	1.7	1.5	2.1	1.9	1.2	1.5
Trichlorotrifluoroethane	76-13-1	0.52	0.86	0.56	0.59	0.64	0.63	0.56	0.61	0.54	0.52
1,2,4-Trichlorobenzene	120-82-1							0.59			
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6		2.1							0.17	
Trichlorofluoromethane (F-11)	75-69-4	1.1	1.6	1.1	1.1	1.2	0.91	1.2	1.2	0.98	1.3
1,3,5-Trimethylbenzene	108-67-8	0.48	0.69	0.89							
1,2,4-Trimethylbenzene	95-63-6	2.6	3.5	2.2				0.57	0.56	0.30	0.28
Vinyl Acetate	108-05-4								8.0	5.2	4.1
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	0.76	2.9	0.90			0.85		0.53	0.22	0.24
m+p-Xylenes	106-42-3	1.8	2.1	2.7	0.66	0.59	2.4	0.72	0.76	0.62	0.68

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
**µg/m³ :** micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.1.5 2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the East Chicago monitor is located (census tract 030300 of Lake County) were compared to the mean of readings recorded at the East Chicago monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates, and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.1.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. The only pollutant with more than a 3-times difference was m+p-xylenes, but as explained in the footnote below, this is not a good comparison because ToxWatch breaks up the isomers of xylene where NATA does not.

Table 2.1.6 – Comparison of 2002 NATA Concentration Estimates to 2002 East Chicago ToxWatch Monitoring Results

ToxWatch Name	CAS	NATA $\mu g/m^3$	ToxWatch $\mu g/m^3$	Diff.
Benzene	71-43-2	1.5	0.82	83%
Chloromethane	74-87-3	1.21	1.6	-24%
Dichloromethane	75-09-2	0.25	0.43	-42%
Ethylbenzene	100-41-4	0.378	0.22	72%
Hexane	110-54-3	0.508	0.76	-33%
Toluene	108-88-3	3.47	1.4	148%
m+p-Xylenes[1]	106-42-3	2.16	0.51	324%

1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.1.6 CONCLUSIONS

The East Chicago air toxics monitor is located in a heavily industrialized area of Northwest Indiana. Despite this, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to be decreasing for the most part. 65% of trends calculated at this monitor were decreasing. Only 17% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.2 FORT WAYNE CAAP

2.2.1 INTRODUCTION

The Fort Wayne – Beacon St. (Fort Wayne CAAP) monitor is located at 2022 N. Beacon St., Ft. Wayne, IN, 46805. Air toxics were monitored at this site from 2003 - 2007. The Fort Wayne CAAP monitor is located in the northeastern portion of the state in Allen County. Large emitters of air toxics within Allen County include the GM Truck Assembly Plant, Lincoln Food Service Products, and the Rea Magnet Wire Company.
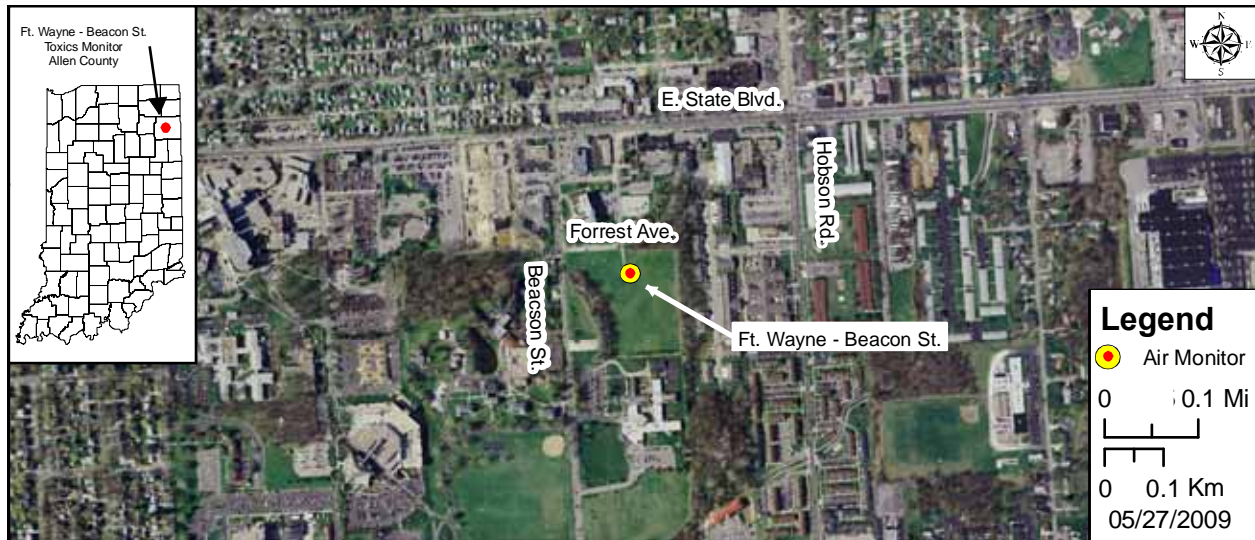
Figure 2.2.1 – Map of the Fort Wayne CAAP Monitor and Surrounding Area

2.2.2 METEOROLOGY

The Fort Wayne area's climate and meteorology is somewhat influenced by the proximity of Lake Michigan approximately 120 miles to the northwest of the Fort Wayne region. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperature in the late spring through early fall and its warmer-than-the-nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for enhancing snow events. Fort Wayne averages 32 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions and a reduction in the atmospheric mixing of ground
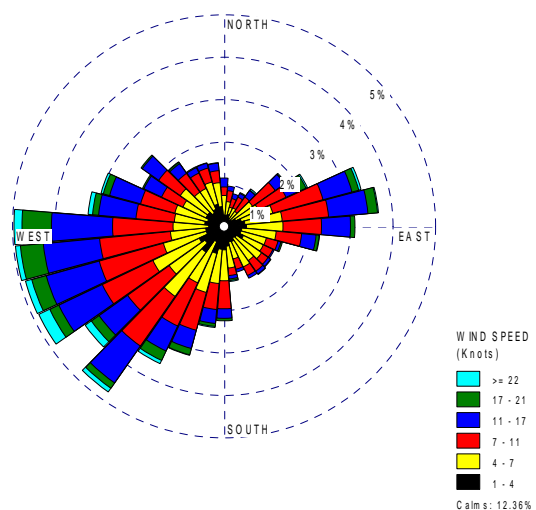
Figure 2.2.2 – Fort Wayne Wind Rose

level pollutants, leading to an increase in concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.2.2) shows the predominant wind direction is from the west and west southwest directions, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. Calm winds were reported at the Fort Wayne National Weather Service approximately 12 percent of the time during the year 2007.

2.2.3   RISKS AND HAZARDS

Regarding carcinogenic risk, air samples collected from the Fort Wayne CAAP monitor displayed a total risk from measured pollutants of approximately 44-in-1,000,000. Roughly 2/3 of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk at the Fort Wayne CAAP monitor falls to approximately 15-in-1,000,000, still somewhat elevated by U.S. EPA standards but within the range seen across the state. This risk was made up of benzene, 1,3-butadiene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, and ethylbenzene. See Table 2.2.2 and Graph 2.2.2 for a visual comparison of risks posed by these pollutants at the Fort Wayne CAAP monitor.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Fort Wayne CAAP monitoring location. IDEM began monitoring for acrolein in 2006 so there are only 3 years of monitoring data for the pollutant. Its 3-year hazard quotient is 87, making it the 4th highest hazard quotient seen in the study. The second highest hazard quotient comes from benzyl chloride, with a value of 0.91. As mentioned above, there are some issues with benzyl chloride that call into question the validity of its hazard quotient. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.25. This is well below the 1.0 level that may indicate a problem. See Table 2.2.1 and Graph 2.2.1 for comparisons of non-carcinogenic hazard quotients at the Fort Wayne CAAP monitor.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index at the Fort Wayne CAAP monitor is 0.15, for respiratory effects. As with the majority of monitors in the ToxWatch network, most of this respiratory hazard is posed by bromomethane. See Table 2.2.3 and Graph 2.2.3 for more information on the critical effects analysis at the Fort Wayne CAAP monitor.

The risks and hazards posed by ToxWatch pollutants at the Fort Wayne CAAP monitor are neither exceptionally high, nor exceptionally low when compared to other ToxWatch monitoring locations within the state.

Table 2.2.1 - Hazard Quotient for Fort Wayne CAAP Monitor 2003-2007

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	91.7%	254	0.00032
Acrolein	107-02-8	89.7%	68	87
Benzene	71-43-2	88.6%	254	0.031
Benzyl Chloride	100-44-7	11.8%	254	0.91
Bromomethane	74-83-9	23.2%	254	0.11
Carbon Disulfide	75-15-0	8.7%	254	0.00033
Carbon Tetrachloride	56-23-5	14.2%	226	0.0013
Chloromethane	74-87-3	78.0%	254	0.0079
Cyclohexane	100-82-7	11.0%	254	0.000032
p-Dichlorobenzene	106-46-7	12.6%	254	0.00034
Dichlorodifluoromethane (F-12)	75-71-8	83.9%	254	0.0013
Dichloromethane	75-09-2	11.0%	254	0.00025
Ethanol	64-17-5	74.8%	254	0.00033
Ethyl Acetate	141-78-6	34.3%	254	0.0011
Ethylbenzene	100-41-4	65.0%	254	0.00026
Heptane	142-82-5	50.8%	254	0.00065
Hexane	110-54-3	65.7%	254	0.00057
Isopropanol	67-63-0	53.9%	254	0.00033
Methyl Ethyl Ketone (MEK)	78-93-3	90.2%	254	0.00048
Methyl Isobutyl Ketone (MIBK)	108-10-1	12.2%	254	0.00011
Methyl n-Butyl Ketone (MBK)	591-78-6	20.9%	254	0.010
Propene	115-07-1	86.6%	254	0.00050
Styrene	100-42-5	15.7%	254	0.00030
Tetrahydrofuran (THF)	109-99-9	11.8%	254	0.0080
Toluene	108-88-3	92.1%	254	0.00024
Trichlorofluoromethane (F-11)	75-69-4	87.4%	254	0.0014
1,2,4-Trimethylbenzene	95-63-6	31.1%	254	0.043
Vinyl Acetate	108-05-4	97.2%	71	0.020
Vinylidene Chloride	75-35-4	11.1%	226	0.0023
o-Xylene	95-47-6	27.2%	254	0.0025
m+p-Xylenes	106-42-3	82.7%	254	0.0074

Table 2.2.2 – Cancer Risk Estimates for Fort Wayne CAAP Monitor 2003-2007

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	88.6%	254	7.3×10^{-06}
Benzyl Chloride	100-44-7	11.8%	254	2.9×10^{-05}
Carbon Tetrachloride	56-23-5	14.2%	226	3.6×10^{-06}
p-Dichlorobenzene	106-46-7	12.6%	254	3.0×10^{-06}
Dichloromethane	75-09-2	11.0%	254	1.2×10^{-07}
Ethylbenzene	100-41-4	65.0%	254	6.5×10^{-07}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read $7.3\text{-times}10^{-06}$ as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.2.1 - Hazard Quotients for Fort Wayne CAAP Monitor 2003-2007
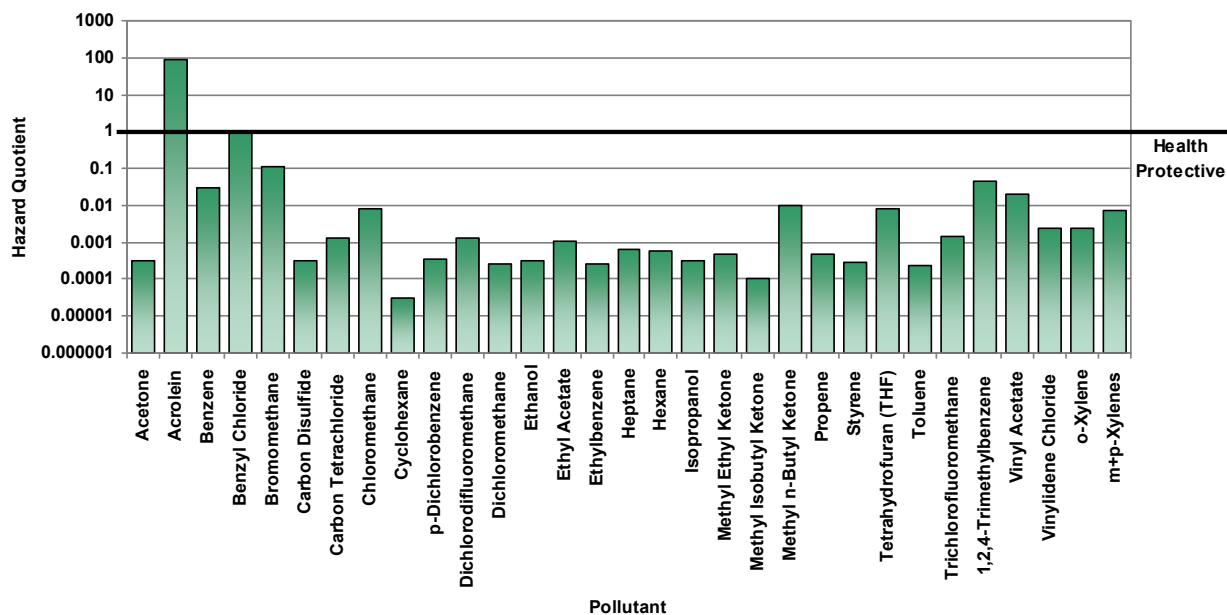
Graph 2.2.2 – Cancer Risk Estimates for Fort Wayne CAAP Monitor 2003-2007
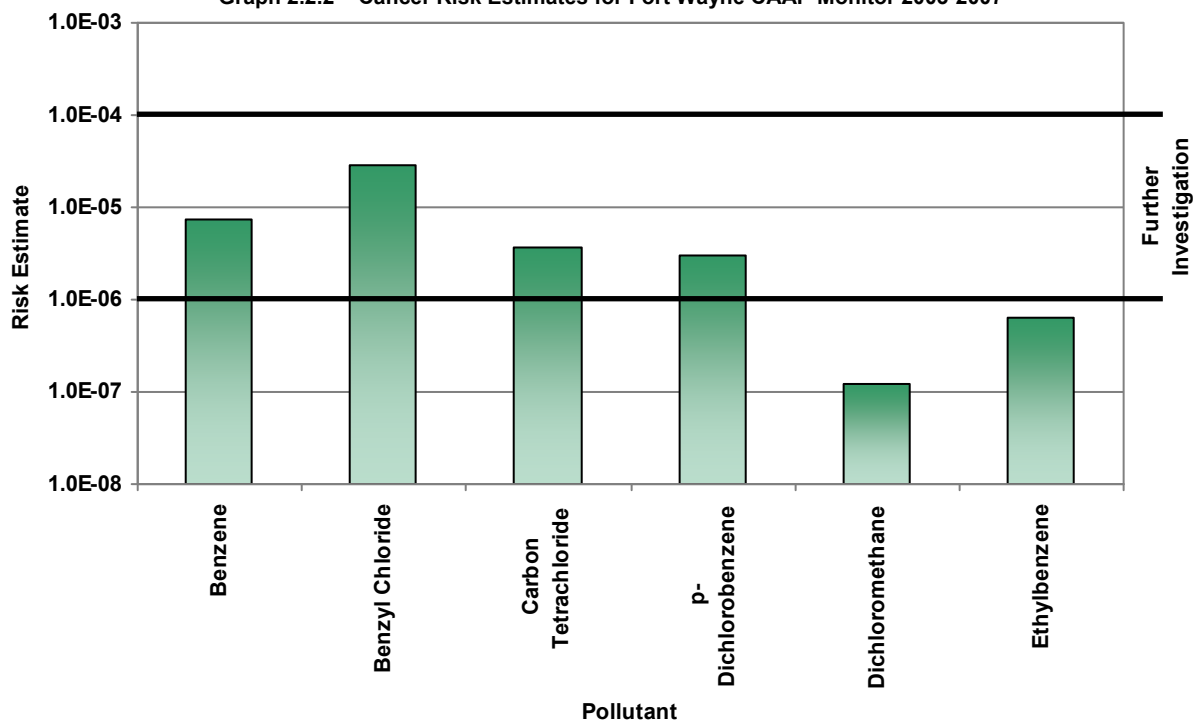
Table 2.2.3 - Fort Wayne CAAP Critical Effects Analysis 2003-2007

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.11	Acetone	67-64-1	0.00032
Dichlorodifluoromethane (F-12)*	75-71-8	0.0013	Carbon Disulfide	75-15-0	0.00033
Ethanol*	64-17-5	0.00033	Chloromethane	74-87-3	0.0079
Heptane*	142-82-5	0.00065	Dichlorodifluoromethane (F-12)*	75-71-8	0.0013
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010	Ethanol*	64-17-5	0.00033
Propene	115-07-1	0.00050	Heptane*	142-82-5	0.00065
Tetrahydrofuran (THF)	109-99-9	0.0080	Hexane	110-54-3	0.00057
Vinyl Acetate	108-05-4	0.020	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010
			Styrene	100-42-5	0.00030
			Toluene	108-88-3	0.00024
			Trichlorofluoromethane (F-11)*	75-69-4	0.0014
			1,2,4-Trimethylbenzene	95-63-6	0.043
			o-Xylene	95-47-6	0.0025
			m+p-Xylenes	106-42-3	0.0074
	Hazard Index	0.15		**Hazard Index**	0.08
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Cyclohexane	100-82-7	0.000032	Benzene	71-43-2	0.031
p-Dichlorobenzene	106-46-7	0.00034	Carbon Tetrachloride	56-23-5	0.0013
Dichlorodifluoromethane (F-12)*	75-71-8	0.0013	Dichlorodifluoromethane (F-12)*	75-71-8	0.0013
Ethanol*	64-17-5	0.00033	Dichloromethane	75-09-2	0.00025
Ethylbenzene	100-41-4	0.00026	Ethanol*	64-17-5	0.00033
Heptane*	142-82-5	0.00065	Ethyl Acetate	141-78-6	0.0011
Isopropanol	67-63-0	0.00033	Heptane*	142-82-5	0.00065
Methyl Ethyl Ketone (MEK)	78-93-3	0.00048	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00011	Tetrahydrofuran (THF)	109-99-9	0.0080
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010	Trichlorofluoromethane (F-11)*	75-69-4	0.0014
Trichlorofluoromethane (F-11)*	75-69-4	0.0014	Vinylidene Chloride	75-35-4	0.0023
	Hazard Index	0.02		**Hazard Index**	0.06

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.2.3 - Fort Wayne CAAP Critical Effects Analysis 2003-2007
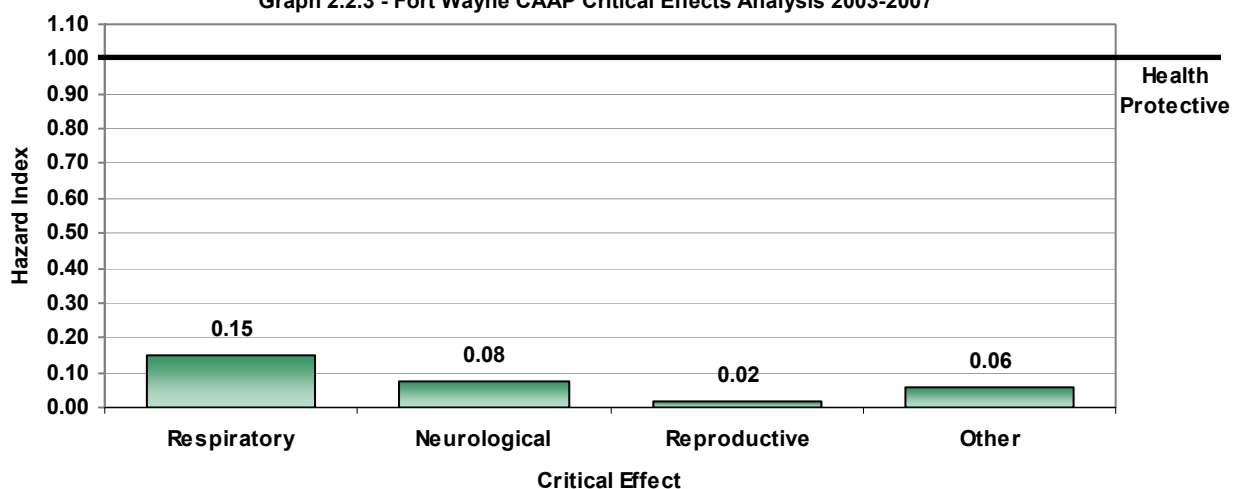
2.2.4 CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to have been trending slightly upwards at the Fort Wayne CAAP monitor over the five years that monitoring was conducted at the site. Of the twenty (20) pollutants at the Fort Wayne CAAP monitor which had detection rates sufficient to calculate some form of concentration trend, twelve (12) showed an increasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Six (6) showed no discernable trend and two (2) showed a decreasing trend. Table 2.2.4 shows pertinent summary data about concentrations and trends at the Fort Wayne CAAP monitor. Graph 2.2.4 displays the daily concentrations of those pollutants with an increasing trend at the Fort Wayne CAAP monitor. Table 2.2.5 shows yearly exposure point concentrations for the Fort Wayne CAAP monitor.

Examination of the trend graphs included in Graph 2.2.4 shows that several of these increasing trends may be an artifact of the analysis technique, rather that indicative of true increasing trends in the pollutant. In order to prevent generally decreasing detection limits from causing a false decreasing trend in the trend analysis, the lowest method detection limit was used for all years. As a result, any pollutant that shows many non-detects early in the monitoring and fewer in the later years is likely being influenced by this artifact and should be looked at more closely before making any determinations about true trends in its concentration.

Graph 2.2.4 - Pollutants with an Increasing Concentration Trend at Fort Wayne CAAP Monitor 2003-2007

Ethylbenzene

Heptane

Hexane

Trichlorotrifluoroethane

1,2,4-Trimethylbenzene

Vinyl Acetate

o-Xylene

m+p-Xylenes
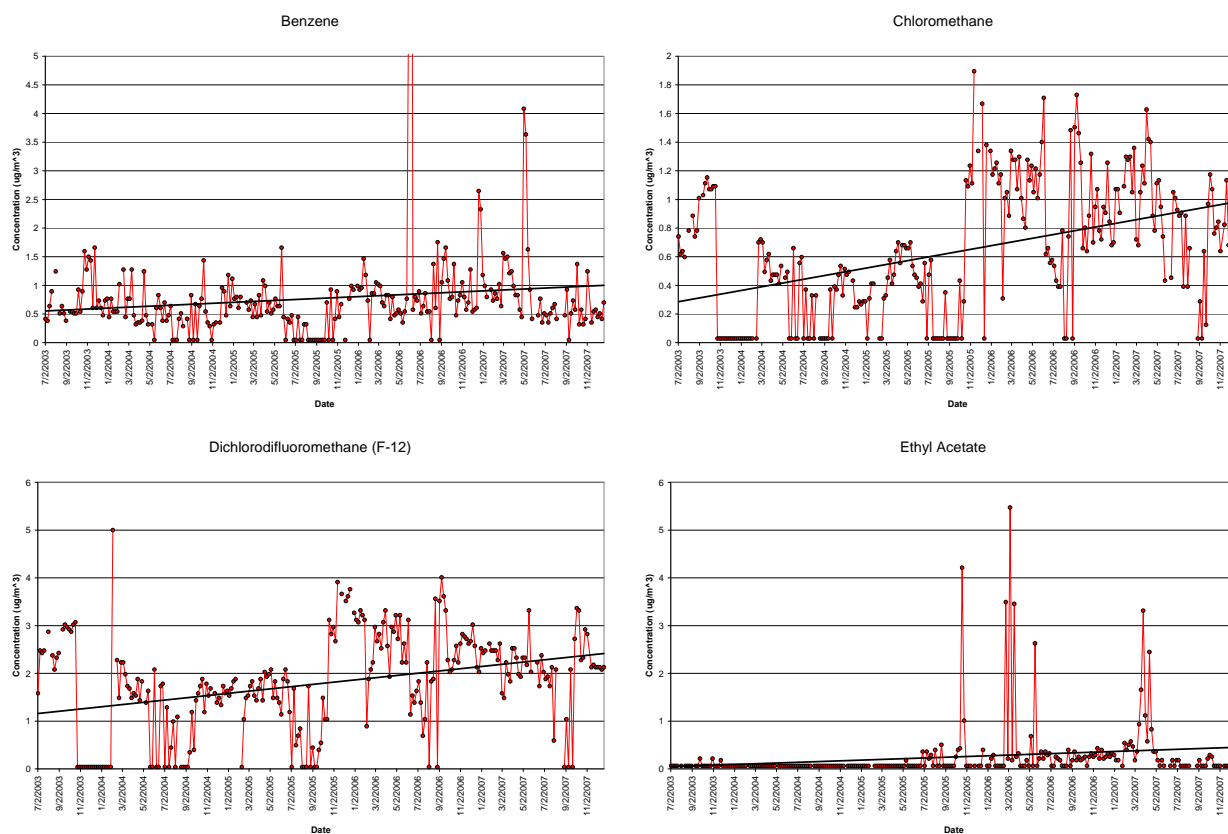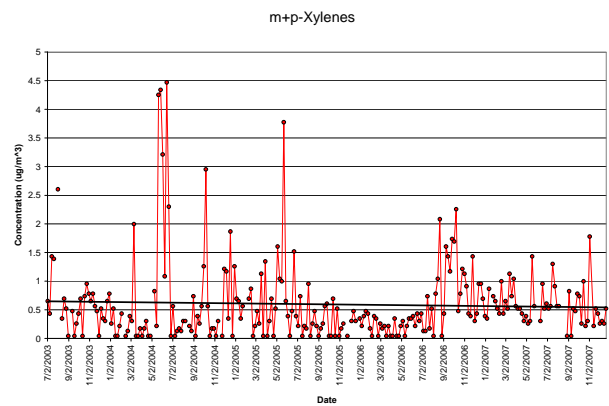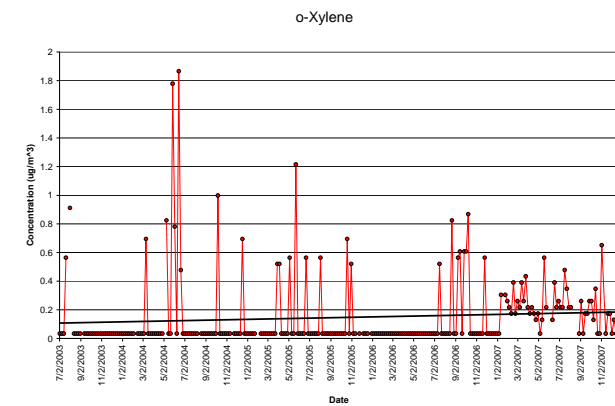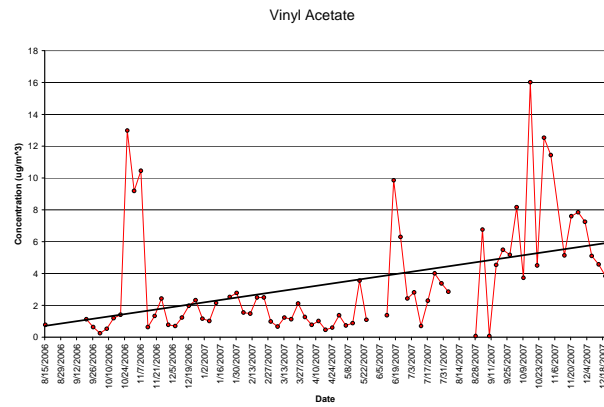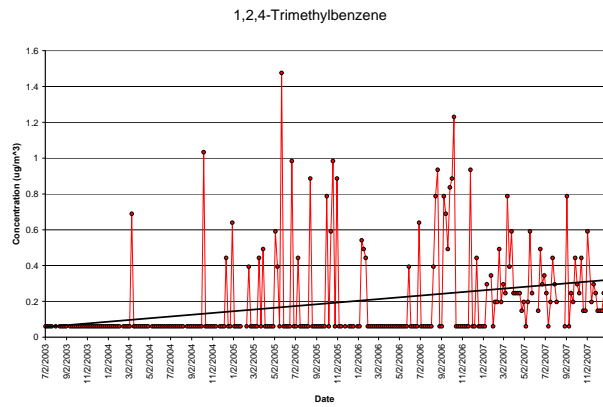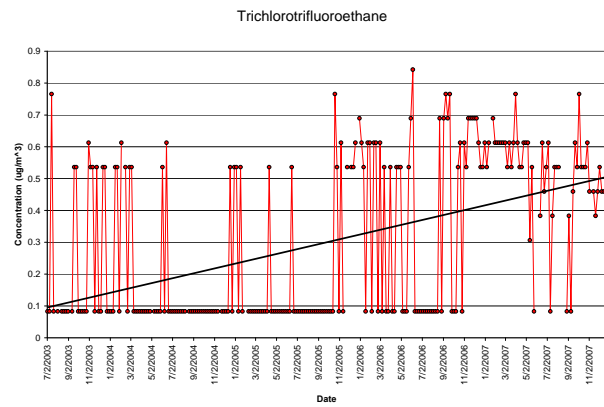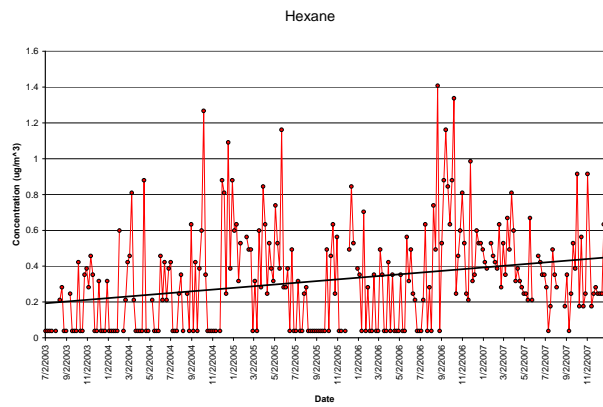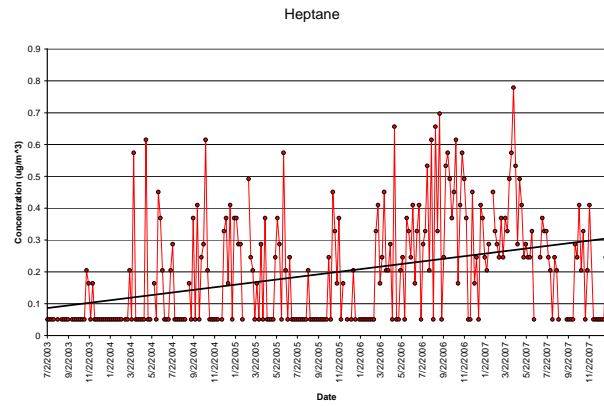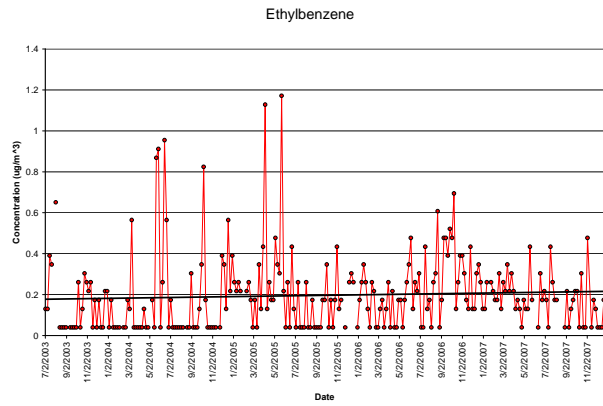
Table 2.2.4 – Concentrations and Trends Summary for Fort Wayne CAAP Monitor 2003-2007

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	91.7%	254	↘	9.0	7.5	37	29	9.8
Acrolein	107-02-8	89.7%	68	↘	1.5	1.2	5.8	4.1	1.7
Benzene	71-43-2	88.6%	254	↗	0.81	1.1	16	1.7	0.93
Benzyl Chloride	100-44-7	11.8%	254		0.56	0.36	3.9	3.6	0.60
Bromomethane	74-83-9	23.2%	254		0.51	0.29	2.5	1.3	0.54
1,3-Butadiene	106-99-0	0.4%	254				0.99	0.67	
Carbon Disulfide	75-15-0	8.7%	254		0.21	0.23	1.6	1.1	0.23
Carbon Tetrachloride	56-23-5	14.2%	226		0.23	0.12	0.75	0.75	0.24
Chloromethane	74-87-3	78.0%	254	↗	0.66	0.43	1.9	1.4	0.71
Cyclohexane	100-82-7	11.0%	254		0.16	0.22	3.4	0.31	0.19
p-Dichlorobenzene	106-46-7	12.6%	254		0.24	0.24	2.0	1.0	0.27
Dichlorodifluoromethane (F-12)	75-71-8	83.9%	254	↗	1.8	0.97	5.0	3.5	1.9
Dichloromethane	75-09-2	11.0%	254		0.24	0.13	1.1	0.60	0.25
1,4-Dioxane	123-91-1	3.5%	226				3.7	0.85	
Ethanol	64-17-5	74.8%	254	↔	28	42	240	160	33
Ethyl Acetate	141-78-6	34.3%	254	↗	0.33	0.60	5.5	1.3	0.40
Ethylbenzene	100-41-4	65.0%	254	↗	0.24	0.17	1.2	0.63	0.26
p-Ethyltoluene	622-96-8	17.7%	254		0.23	0.11	0.93	0.53	0.24
Heptane	142-82-5	50.8%	254	↗	0.26	0.14	0.78	0.59	0.28
Hexane	110-54-3	65.7%	254	↗	0.37	0.24	1.4	0.92	0.40
Isopropanol	67-63-0	53.9%	254	↔	1.7	5.1	56	11	2.3
Methyl Ethyl Ketone (MEK)	78-93-3	90.2%	254	↔	2.1	2.1	20	5.6	2.4
Methyl Isobutyl Ketone (MIBK)	108-10-1	12.2%	254		0.28	0.51	170	170	0.34
Methyl n-Butyl Ketone (MBK)	591-78-6	20.9%	254		0.43	1.3	17	2.2	0.57
Propene	115-07-1	86.6%	254	↔	1.3	2.1	26	4.1	1.5
Styrene	100-42-5	15.7%	254		0.28	0.21	2.3	0.66	0.30
Tetrahydrofuran (THF)	109-99-9	11.8%	254		0.26	0.16	2.0	0.59	0.28
Toluene	108-88-3	92.1%	254	↔	1.2	0.87	5.1	3.4	1.2
Trichlorotrifluoroethane	76-13-1	44.1%	254	↗	0.46	0.18	0.84	0.84	0.47
1,1,1-Trichloroethane	71-55-6	0.0%	226						
Trichloroethene (TCE)	79-01-6	5.5%	254				1.1	0.89	
Trichlorofluoromethane (F-11)	75-69-4	87.4%	254	↔	1.0	0.37	1.8	1.6	1.0
1,3,5-Trimethylbenzene	108-67-8	3.5%	254				0.89	0.65	
1,2,4-Trimethylbenzene	95-63-6	31.1%	254	↗	0.27	0.23	1.5	0.89	0.30
Vinyl Acetate	108-05-4	97.2%	71	↗	3.4	3.5	16	12	4.1
Vinylidene Chloride	75-35-4	11.1%	226		0.45	0.059	0.91	0.62	0.46
o-Xylene	95-47-6	27.2%	254	↗	0.23	0.24	1.9	0.80	0.25
m+p-Xylenes	106-42-3	82.7%	254	↗	0.66	0.69	4.5	3.2	0.74

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.2.5 – Yearly Exposure Point Concentrations for Fort Wayne CAAP Monitor 2003-2007

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1					14	11	7.0	14	9.5	
Acrolein	107-02-8								2.3	1.6	
Benzene	71-43-2					0.92	0.65	0.63	1.7	1.0	
Benzyl Chloride	100-44-7						0.67	1.3			
Bromomethane	74-83-9					0.48	0.53	0.57	0.74		
1,3-Butadiene	106-99-0										
Carbon Disulfide	75-15-0					0.94				0.17	
Carbon Tetrachloride	56-23-5									0.33	
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3									0.15	
Chloromethane	74-87-3					0.84	0.42	0.65	1.0	0.95	
Cyclohexane	100-82-7							0.45		0.15	
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7									0.43	
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8					2.4	1.5	1.9	2.6	2.3	
Dichloromethane	75-09-2							0.53	0.49	0.23	
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2										
1,4-Dioxane	123-91-1									0.42	
Ethanol	64-17-5					120	24	13	40	25	
Ethyl Acetate	141-78-6					0.19		0.47	0.69	0.55	
Ethylbenzene	100-41-4					0.24	0.35	0.30	0.28	0.22	
p-Ethyltoluene	622-96-8							0.31	0.30	0.21	
Heptane	142-82-5					0.17	0.35	0.25	0.36	0.33	
Hexane	110-54-3					0.28	0.44	0.45	0.50	0.43	
Isopropanol	67-63-0					8.0	2.6	3.4	1.3	1.1	
Methyl Ethyl Ketone (MEK)	78-93-3					2.1	3.0	2.9	2.7	2.1	
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.42	
Methyl n-Butyl Ketone (MBK)	591-78-6									0.82	
Propene	115-07-1					2.1	0.98	1.4	3.3	0.73	
Styrene	100-42-5					0.32		0.34	0.45	0.33	
Tetrachloroethene (PCE)	127-18-4									0.23	
Tetrahydrofuran (THF)	109-99-9							0.36	0.37	0.28	
Toluene	108-88-3					1.6	1.5	1.1	1.4	1.2	
Trichlorotrifluoroethane	76-13-1					0.57	0.58	0.56	0.6	0.56	
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6									0.21	
Trichlorofluoromethane (F-11)	75-69-4					1.3	0.96	1.1	1.2	1	
1,3,5-Trimethylbenzene	108-67-8						0.64				
1,2,4-Trimethylbenzene	95-63-6							0.52	0.51	0.33	
Vinyl Acetate	108-05-4								4.2	4.5	
Vinylidene Chloride	75-35-4						0.51				
o-Xylene	95-47-6						0.62	0.56	0.55	0.26	
m+p-Xylenes	106-42-3					0.83	1.2	0.74	0.69	0.68	

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
**µg/m³ :** micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.2.5   2002 NATA COMPARISON

The Fort Wayne CAAP monitor was not active in 2002, so no comparison of 2002 NATA modeling to ToxWatch monitoring results was conducted.

2.2.6   CONCLUSIONS

The Fort Wayne CAAP air toxics monitor is located in a relatively industrialized area of Northeast Indiana. Despite this, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant. While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold.

Unlike most other monitoring locations, concentrations of air toxics at the Fort Wayne CAAP monitor appear to be trending slightly upwards. 60% of trends calculated at this monitor were increasing and 10% were decreasing. It should be noted that comparing data from the Fort Wayne CAAP monitor to other ToxWatch Monitors should be done with caution because it only monitored air toxics for five (5) of the ten (10) years covered in this report. IDEM is dedicated to reducing air toxics concentrations here and across the state.

2.3   GARY IITRI

2.3.1   INTRODUCTION

The Gary IITRI monitor is located at the IITRI Bunker, 201 Mississippi St., Gary, IN, 46402. It has been monitoring air toxics concentrations from 1999 through present day. The Gary – IITRI monitor is located in the northwestern portion of the state in Lake County. This area of Indiana is one of the most heavily industrialized areas of the nation. Large emitters of air toxics within Lake County include the U.S. Gary Works facility, the State Line Generating Plant and the BP Products Whiting Facility.

Figure 2.3.1 – Map of Gary IITRI Monitor and Surrounding Area

2.3.2   METEOROLOGY

Gary's meteorology and climate are largely influenced by the proximity of Lake Michigan. Lake Michigan is just a few miles to the north of downtown Gary. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperature in the late spring through early fall, and its warmer-than-the-nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. Gary averages approximately 39 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature

Figure 2.3.2 – Gary Wind Rose

inversions and consequently a reduction in the atmospheric mixing of ground level pollutants leading to an increase in concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.3.2) shows the predominant wind direction to be from a south to southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months also can create recirculation patterns which lead to higher pollutant concentration especially ozone. Calm winds were reported at the Gary observing station less than one percent of the time during 2008.

2.3.3 RISKS AND HAZARDS

Regarding carcinogenic risk, air samples collected from the Gary IITRI monitor displayed a total risk from measured pollutants of approximately 24-in-1,000,000. Nearly all of this risk, 19-in-1,000,000 is due to benzene. The remaining 5-in-1,000,000 risk came from carbon tetrachloride, dichloromethane, and ethylbenzene. Unlike most other monitoring locations in the study, benzyl chloride does not present the highest cancer risk at the Gary IITRI monitoring location. This is because exposure point concentrations (and by extension, risk and hazard estimates) were only calculated for pollutants that had at least a 7.5% detection rate. While most monitoring locations had detection rates slightly above 7.5%, Gary IITRI had a benzyl chloride detection rate of only 7%, so no exposure assessment was made. Had numbers been calculated they would have been similar to those seen at other monitoring locations. See Table 2.3.2 and Graph 2.3.2 for a visual comparison of risks posed by these pollutants at the Gary IITRI monitor.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Gary IITRI monitoring location. IDEM began monitoring for acrolein in 2006 so there are only 3 years of monitoring data for the pollutant. Its three-year hazard quotient is 85, making it one of the lowest acrolein hazard index seen in the study. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.42. This is well below the 1.0 level that may indicate a problem. See Table 2.3.1 and Graph 2.3.1 for comparisons of non-carcinogenic hazard quotients at the Gary IITRI monitor.

When the critical effects of pollutants are considered, and acrolein is excluded, the highest hazard index at the Gary IITRI monitor is 0.22, for neurological effects. As with the majority of monitors in the ToxWatch network, most of this neurological hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. See Table 2.3.3 and Graph 2.3.3 for more information on the critical effects analysis at the Gary IITRI monitor.

Table 2.3.1 - Hazard Quotient for Gary IITRI Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	94.3%	402	0.0020
Acrolein	107-02-8	87.7%	130	85
Benzene	71-43-2	92.8%	541	0.080
Bromomethane	74-83-9	18.1%	504	0.082
Carbon Disulfide	75-15-0	13.4%	402	0.00073
Carbon Tetrachloride	56-23-5	12.0%	391	0.0014
Chloromethane	74-87-3	86.0%	541	0.011
Cyclohexane	100-82-7	28.5%	541	0.00014
Dichlorodifluoromethane (F-12)	75-71-8	89.8%	541	0.0019
Dichloromethane	75-09-2	14.6%	541	0.00021
Ethanol	64-17-5	82.3%	402	0.00028
Ethyl Acetate	141-78-6	25.1%	402	0.0011
Ethylbenzene	100-41-4	53.0%	541	0.00035
Heptane	142-82-5	61.6%	541	0.00067
Hexane	110-54-3	67.1%	541	0.00066
Isopropanol	67-63-0	61.2%	402	0.0049
Methyl Ethyl Ketone (MEK)	78-93-3	90.0%	402	0.00048
Methyl Isobutyl Ketone (MIBK)	108-10-1	14.4%	402	0.00047
Methyl n-Butyl Ketone (MBK)	591-78-6	23.1%	402	0.0079
Propene	115-07-1	90.6%	541	0.00060
Styrene	100-42-5	13.5%	541	0.00025
Tetrahydrofuran (THF)	109-99-9	18.2%	402	0.0080
Toluene	108-88-3	91.7%	541	0.00032
Trichlorofluoromethane (F-11)	75-69-4	89.5%	541	0.0016
1,3,5-Trimethylbenzene	108-67-8	9.4%	541	0.063
1,2,4-Trimethylbenzene	95-63-6	37.0%	541	0.12
Vinyl Acetate	108-05-4	77.3%	132	0.017
o-Xylene	95-47-6	16.3%	541	0.0033
m+p-Xylenes	106-42-3	68.4%	541	0.0096

Table 2.3.2 – Cancer Risk Estimates for Gary IITRI Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	92.8%	541	1.9×10^{-05}
Carbon Tetrachloride	56-23-5	12.0%	391	4.0×10^{-06}
Dichloromethane	75-09-2	14.6%	541	9.9×10^{-08}
Ethylbenzene	100-41-4	53.0%	541	8.8×10^{-07}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read $7.3\text{-times}10^{-06}$ as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.3.1 - Hazard Quotient for Gary IITRI Monitor 1999-2008

Graph 2.3.2 – Cancer Risk Estimates for Gary IITRI Monitor 1999-2008
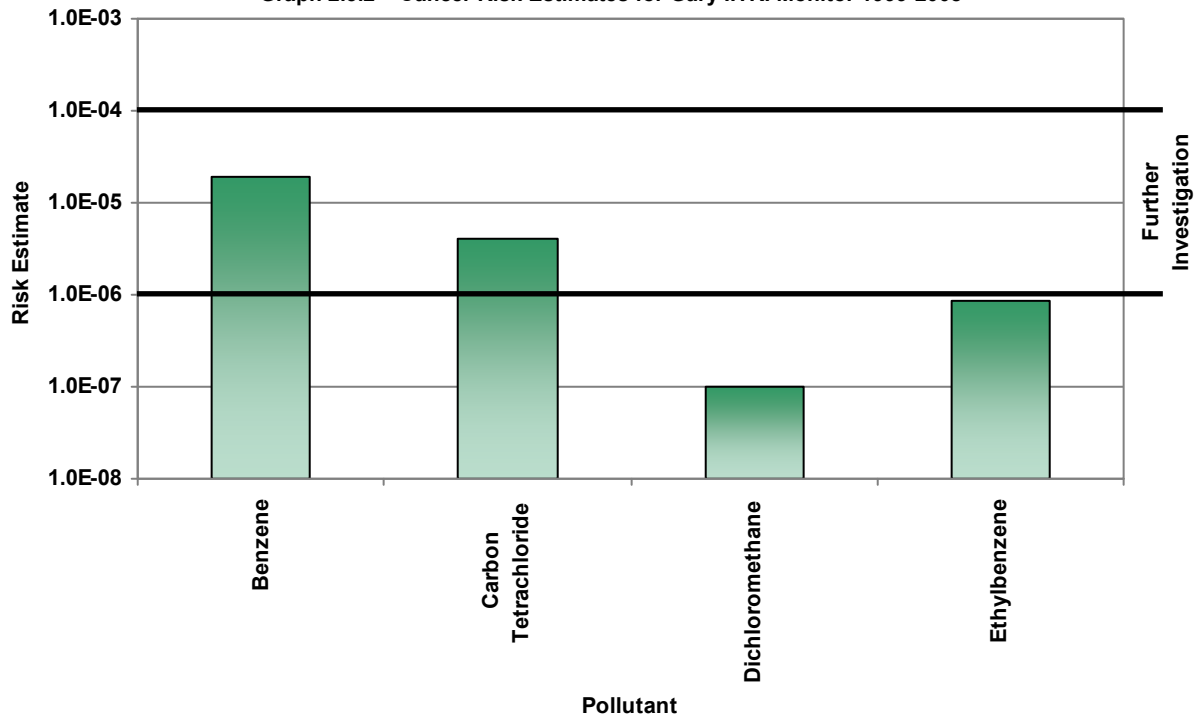
Table 2.3.3 – Critical Effects Analysis for Gary IITRI Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.082	Acetone	67-64-1	0.0020
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Carbon Disulfide	75-15-0	0.00073
Ethanol*	64-17-5	0.00028	Chloromethane	74-87-3	0.011
Heptane*	142-82-5	0.00067	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0079	Ethanol*	64-17-5	0.00028
Propene	115-07-1	0.00060	Heptane*	142-82-5	0.00067
Tetrahydrofuran (THF)	109-99-9	0.0080	Hexane	110-54-3	0.00066
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0079
Vinyl Acetate	108-05-4	0.017	Styrene	100-42-5	0.00025
			Toluene	108-88-3	0.00032
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
			1,3,5-Trimethylbenzene	108-67-8	0.063
			1,2,4-Trimethylbenzene	95-63-6	0.12
			o-Xylene	95-47-6	0.0033
			m+p-Xylenes	106-42-3	0.0096
Hazard Index		0.12	**Hazard Index**		0.22
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Isopropanol	67-63-0	0.0049	Benzene	71-43-2	0.080
Cyclohexane	100-82-7	0.00014	Carbon Tetrachloride	56-23-5	0.0014
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Ethanol*	64-17-5	0.00028	Dichloromethane	75-09-2	0.00021
Ethylbenzene	100-41-4	0.00035	Ethanol*	64-17-5	0.00028
Heptane*	142-82-5	0.00067	Ethyl Acetate	141-78-6	0.0011
Methyl Ethyl Ketone (MEK)	78-93-3	0.00048	Heptane*	142-82-5	0.00067
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00047	Isopropanol	67-63-0	0.0049
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0079	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0079
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Tetrahydrofuran (THF)	109-99-9	0.0080
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
Hazard Index		0.02	**Hazard Index**		0.11

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.3.3 – Critical Effects Analysis for Gary IITRI Monitor 1999-2008
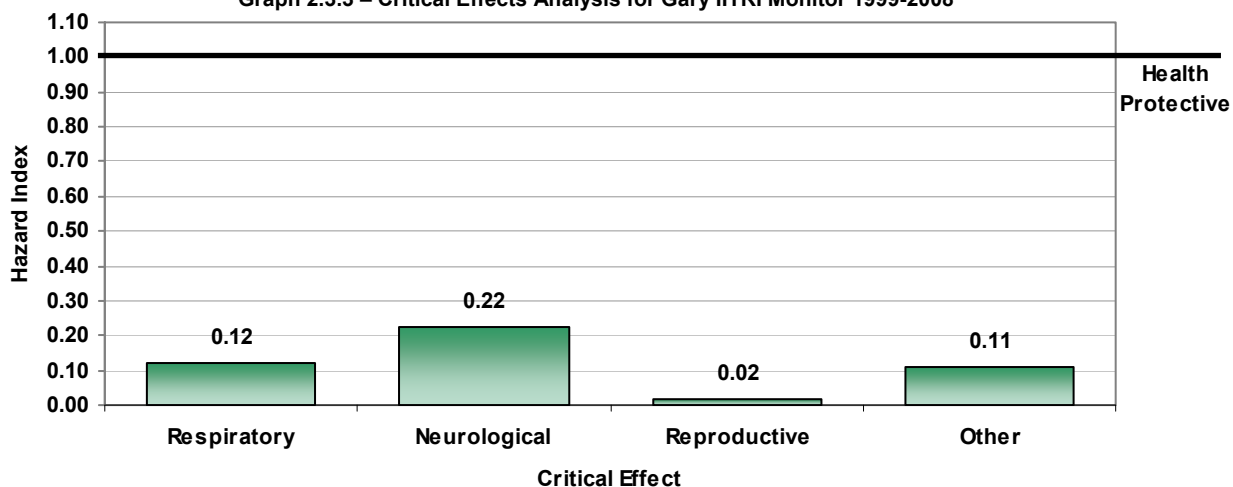
2.3.4 CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be trending slightly downwards at the Gary IITRI monitor over the last decade. Of the twenty (20) pollutants at Gary IITRI which had detection rates sufficient to calculate some form of concentration trend, nine (9) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Five (5) showed no discernable trend and six (6) showed an increasing trend. Table 2.3.4 shows pertinent summary data about concentrations and trends at the Gary IITRI monitor. Graph 2.3.4 displays the daily concentrations of those pollutants with an increasing trend at the Gary IITRI monitor. Table 2.3.5 shows yearly exposure point concentrations for the Gary IITRI monitor.

Graph 2.3.4 Pollutants with an Increasing Concentration Trend at Gary IITRI Monitor 1999-2008
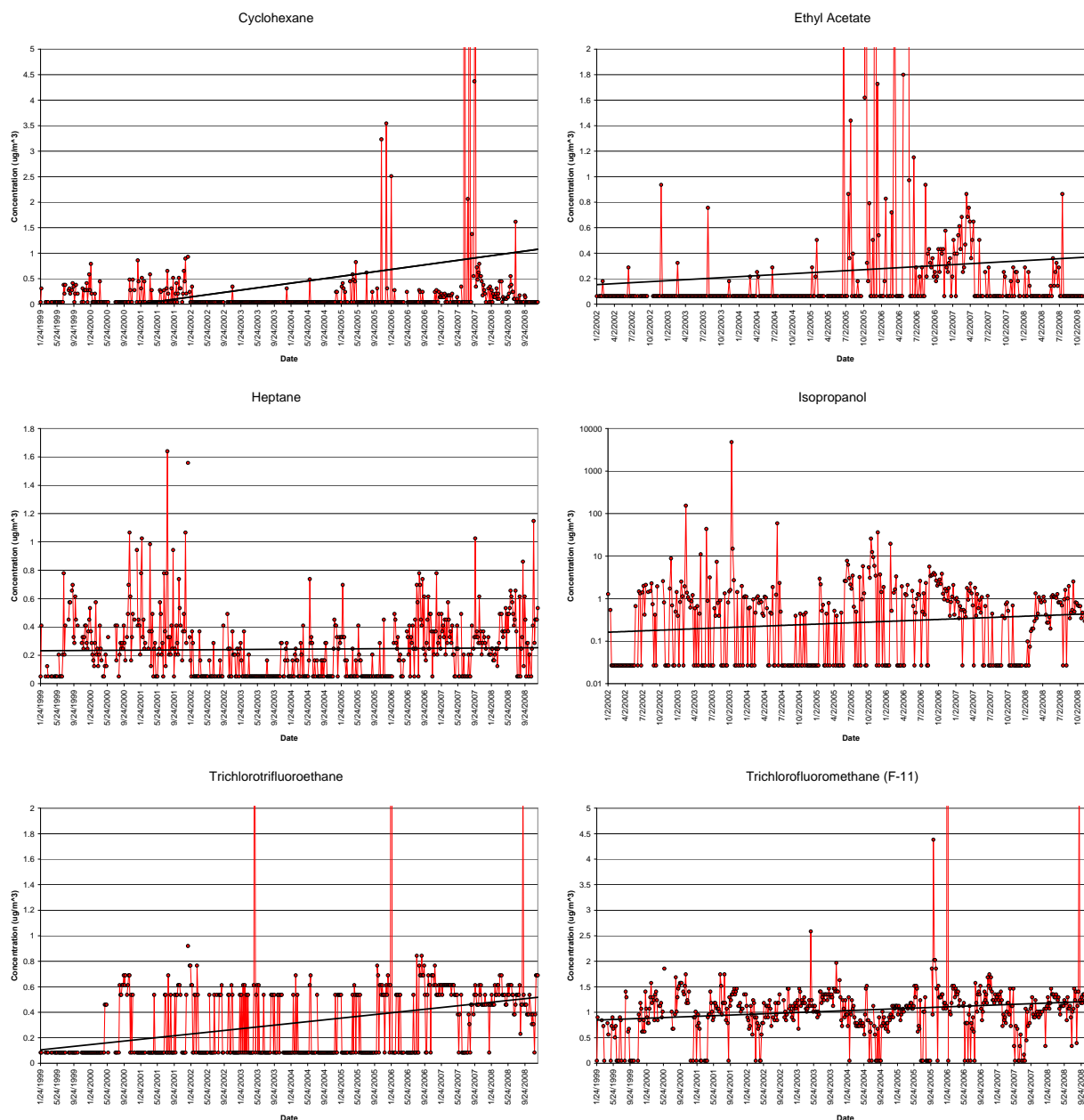
Table 2.3.4 – Concentrations and Trends Summary Data for Gary IITRI Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	94.3%	402	↘	29	400	8000	31	63
Acrolein	107-02-8	87.7%	130	↘	1.4	1.7	15	3.9	1.7
Benzene	71-43-2	92.8%	541	↔	2.1	3.8	37	13	2.4
Benzyl Chloride	100-44-7	7.0%	402				3.6	3.6	
Bromomethane	74-83-9	18.1%	504		0.33	1.0	22	0.81	0.41
1,3-Butadiene	106-99-0	6.5%	402				2.3	0.67	
Carbon Disulfide	75-15-0	13.4%	402		0.42	1.1	10	2.8	0.51
Carbon Tetrachloride	56-23-5	12.0%	391		0.24	0.34	6.1	0.82	0.27
Chloromethane	74-87-3	86.0%	541	↔	0.9	1.4	22	1.6	1.0
Cyclohexane	100-82-7	28.5%	541	↗	0.49	4.8	98	0.71	0.84
p-Dichlorobenzene	106-46-7	7.0%	541				17	1.0	
Dichlorodifluoromethane (F-12)	75-71-8	89.8%	541	↔	2.5	5.4	83	3.8	2.9
Dichloromethane	75-09-2	14.6%	541		0.19	0.30	6.5	0.51	0.21
1,4-Dioxane	123-91-1	6.1%	342				6.6	3.1	
Ethanol	64-17-5	82.3%	402	↔	25	37	370	94	28
Ethyl Acetate	141-78-6	25.1%	402	↗	0.33	0.99	13	0.97	0.41
Ethylbenzene	100-41-4	53.0%	541	↘	0.26	1.3	30	0.64	0.35
p-Ethyltoluene	622-96-8	19.8%	541		0.27	0.55	9.4	0.58	0.31
Heptane	142-82-5	61.6%	541	↗	0.28	0.20	1.6	0.77	0.29
Hexane	110-54-3	67.1%	541	↘	0.42	0.57	7.5	1.3	0.46
Isopropanol	67-63-0	61.2%	402	↗	14	240	4800	7.8	34
Methyl Ethyl Ketone (MEK)	78-93-3	90.0%	402	↔	2.1	3.0	41	6.3	2.4
Methyl Isobutyl Ketone (MIBK)	108-10-1	14.4%	402		0.63	9.1	180	170	1.4
Methyl n-Butyl Ketone (MBK)	591-78-6	23.1%	402		0.35	1.2	21	2.2	0.45
Propene	115-07-1	90.6%	541	↘	1.6	3.2	49	5.2	1.8
Styrene	100-42-5	13.5%	541		0.21	0.52	10	0.66	0.25
Tetrahydrofuran (THF)	109-99-9	18.2%	402		0.23	0.51	9.3	0.65	0.28
Toluene	108-88-3	91.7%	541	↘	1.4	3.4	62	4.3	1.6
Trichlorotrifluoroethane	76-13-1	43.6%	541	↗	0.44	0.54	11	0.84	0.48
1,1,1-Trichloroethane	71-55-6	0.2%	481				2.2	2.2	
Trichloroethene (TCE)	79-01-6	0.4%	541				1.2	1.2	
Trichlorofluoromethane (F-11)	75-69-4	89.5%	541	↗	1.1	0.93	19	1.7	1.1
1,3,5-Trimethylbenzene	108-67-8	9.4%	541		0.34	0.5	11	0.65	0.38
1,2,4-Trimethylbenzene	95-63-6	37.0%	541	↘	0.69	1.9	33	4.3	0.83
Vinyl Acetate	108-05-4	77.3%	132	↘	2.8	4.1	25	14	3.4
Vinylidene Chloride	75-35-4	0.0%	391						
o-Xylene	95-47-6	16.3%	541		0.26	0.95	15	0.74	0.33
m+p-Xylenes	106-42-3	68.4%	541	↘	0.71	3.4	77	3.2	0.96

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.3.5 – Yearly Exposure Point Concentrations for Gary IITRI Monitor 1999-2008

Pollutant	CAS#	1999 µg/m^3	2000 µg/m^3	2001 µg/m^3	2002 µg/m^3	2003 µg/m^3	2004 µg/m^3	2005 µg/m^3	2006 µg/m^3	2007 µg/m^3	2008 µg/m^3
Acetone	67-64-1				11	370	9.9	11	18	9.0	5.5
Acrolein	107-02-8								2.0	1.7	1.9
Benzene	71-43-2	2.7	4.2	4.3	1.8	3.0	2.5	3.6	3.3	2.3	2.0
Benzyl Chloride	100-44-7						0.55	1.5			
Bromomethane	74-83-9					0.44	0.59	0.60	1.6		0.33
1,3-Butadiene	106-99-0										0.13
Carbon Disulfide	75-15-0					6.8	1.6			0.20	
Carbon Tetrachloride	56-23-5									0.33	0.34
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3										
Chloromethane	74-87-3	0.97	1.1	0.90	2.4	0.91	0.43	0.77	2.1	0.89	0.96
Cyclohexane	100-82-7	0.27	0.28	0.34	0.29			0.53	0.37	6.7	0.24
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7			0.72						0.30	
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.3	2.7	2.3	9.2	2.4	1.6	2.1	4.9	2.1	2.9
Dichloromethane	75-09-2	0.36	0.42					0.5	0.71	0.27	0.20
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2										
1,4-Dioxane	123-91-1									0.25	0.15
Ethanol	64-17-5				44	38	29	13	40	29	41
Ethyl Acetate	141-78-6							1.4	0.73	0.35	0.2
Ethylbenzene	100-41-4	0.36	0.35	1.8	0.20	0.16	0.28	0.21	0.35	0.17	0.23
p-Ethyltoluene	622-96-8	0.35	0.80	0.54				0.27	0.28	0.60	
Heptane	142-82-5	0.36	0.38	0.47	0.28	0.19	0.30	0.24	0.38	0.36	0.41
Hexane	110-54-3	0.84	0.66	0.92	0.59	0.31	0.41	0.47	0.80	0.36	0.36
Isopropanol	67-63-0				1.2	220	3.3	4.3	2.5	0.73	0.82
Methyl Ethyl Ketone (MEK)	78-93-3				2.6	1.8	1.7	3.2	4.2	2.0	3.4
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.38	0.22
Methyl n-Butyl Ketone (MBK)	591-78-6									0.68	0.37
Propene	115-07-1	1.9	1.4	2.4	4.8	2.6	1.5	1.6	3.5	0.60	0.88
Styrene	100-42-5	0.49	1.1	0.56				0.31			
Tetrachloroethene (PCE)	127-18-4										
Tetrahydrofuran (THF)	109-99-9				0.83		0.24	0.50	0.24	0.23	0.48
Toluene	108-88-3	4.3	3.1	5.2	1.1	1.1	1.0	1.0	1.7	0.89	0.93
Trichlorotrifluoroethane	76-13-1		0.53	0.55	0.58	0.76	0.63	0.56	1.1	0.53	0.59
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6										
Trichlorofluoromethane (F-11)	75-69-4	0.77	1.3	1.1	1.0	1.3	0.9	1.3	2.0	0.98	1.4
1,3,5-Trimethylbenzene	108-67-8	0.43	0.98	0.59							
1,2,4-Trimethylbenzene	95-63-6	3.1	4.2	1.5				0.44	0.68	0.23	0.18
Vinyl Acetate	108-05-4								5.5	4.8	2.4
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	0.56	1.6	1.2						0.18	0.17
m+p-Xylenes	106-42-3	1.2	1.3	4.8	0.41	0.35	0.83	0.53	0.59	0.46	0.46

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
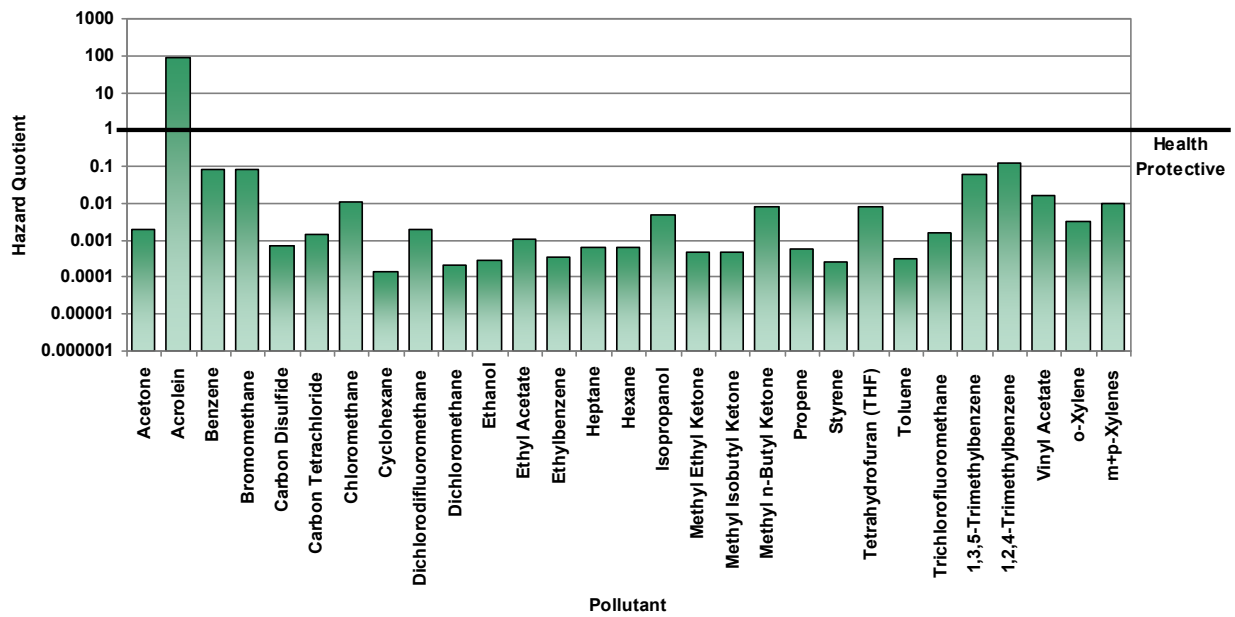**µg/m^3 :** micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.3.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Gary IITRI monitor is located (census tract 010202 of Lake County) were compared to the mean of readings recorded at the Gary IITRI monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates, and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.3.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. The only pollutant with more than a 3-times difference was m+p-xylenes, but as explained in the footnote below, this is not a good comparison because ToxWatch breaks up the isomers of xylene where NATA does not.

**Table 2.3.6 – Comparison of 2002 NATA Concentration Estimates to
2002 Gary IITRI ToxWatch Monitoring Results**

ToxWatch Name	CAS	NATA µg/m³	ToxWatch µg/m³	Diff.
Benzene	71-43-2	1.22	1.4	-13%
Chloromethane	74-87-3	1.2	1.6	-25%
Ethylbenzene	100-41-4	0.299	0.16	87%
Hexane	110-54-3	0.322	0.44	-27%
Toluene	108-88-3	2.65	0.84	215%
m+p-Xylenes[1]	106-42-3	1.57	0.31	406%

1- Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA – Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch – Mean of ToxWatch readings taken in 2002
Diff. – The percent difference between the NATA estimate and the ToxWatch mean.

2.3.6   CONCLUSIONS

The Gary IITRI air toxics monitor is located in a heavily industrialized area of Northwest Indiana. Despite this, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to be decreasing for the most part. 45% of trends calculated at this monitor were decreasing. Only 30% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.4   GARY IVANHOE

2.4.1   INTRODUCTION

The Gary Ivanhoe monitor was located at the Ivanhoe Elementary School, 5700 W. 15th St., Gary, IN 46406. Air toxics were monitored at this site from 1999 - 2003. The Gary Ivanhoe monitor was located in the northwestern portion of the state in Lake County. This area of Indiana is one of the most heavily industrialized areas of the nation. Large emitters of air toxics within Lake County include the U.S. Gary Works facility, the State Line Generating Plant, and the BP Products Whiting Facility.

Since sampling at this monitor ended over 5 years ago, it is not easily compared to other monitors within the study. In fact, any comparison made between the hazards and risks calculated for Gary Ivanhoe and other monitors within the study are tenuous at best.

Figure 2.4.1 – Map of Gary Ivanhoe Monitor and Surrounding Area

2.4.2   METEOROLOGY

Gary's meteorology and climate are largely influenced by the proximity of Lake Michigan. Lake Michigan is just a few miles to the north of downtown Gary. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperature in the late spring through early fall, and its warmer-than-the-nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.
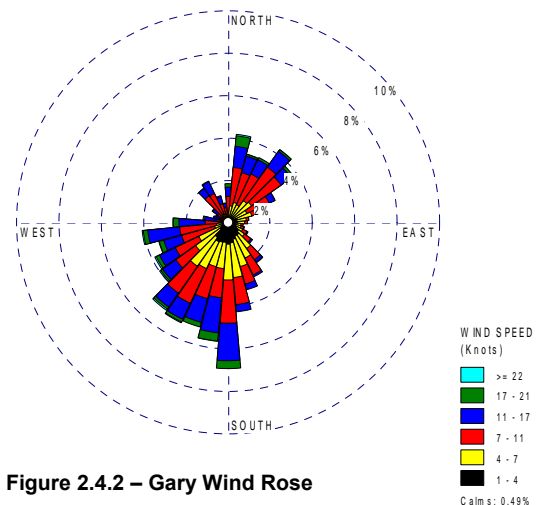
Figure 2.4.2 – Gary Wind Rose

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. Gary averages approximately 39 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions and consequently a reduction in the atmospheric mixing of ground level pollutants leading to an increase in concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.4.2) shows the predominant wind direction to be from a south to southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months also can create recirculation patterns which lead to higher pollutant concentration especially ozone. Calm winds were reported at the Gary observing station less than one percent of the time during 2008.

2.4.3 RISKS AND HAZARDS

Since monitoring at the Gary Ivanhoe location ended in 2003, and sampling for acrolein did not begin until 2006, there is no data concerning hazards posed by acrolein at the Gary Ivanhoe monitoring location. Monitoring at Gary Ivanhoe also ended before the anomalous readings in 2004-2005 that has called benzyl chloride data into question. The total hazard index for the Gary Ivanhoe monitoring location is 1.15. This is above the health protective level of 1.0 and requires further investigation. When critical effects analysis is conducted for the Gary Ivanhoe monitor, neurological effects become the only concern, with a hazard index of 1.12. The majority of this risk comes from 1,2,4- and 1,3,5- trimethylbenzene. The trimethylbenzenes are a common cause of neurological hazard across the state. At least part of the cause of this high hazard index is due to the sampling period. Air quality has improved since 2003 and these improvements are not reflected in Gary Ivanhoe's hazard indices. To illustrate this point, Gary IITRI, the closest air toxics monitor to the Gary Ivanhoe monitor, has a hazard quotient for 1,2,4-trimethylbenzene of 0.12 when calculated for the full 1999-2008 sampling period. If the hazard quotient is only calculated for 1999-2003 (the same sampling period as Gary Ivanhoe) this hazard quotient nearly doubles to 0.23. This provides circumstantial evidence that trimethylbenzene concentrations have decreased in Gary since 2003. In addition, trend analysis at the Gary Ivanhoe monitor showed deceasing trends at the time that monitoring at that location ceased. See Table 2.4.1 and Graph 2.4.1 for a complete list of hazard quotients calculated at Gary Ivanhoe. See Table 2.4.3 and Graph 2.4.3 for more information on the critical effects analysis at Gary Ivanhoe.

The Gary Ivanhoe monitoring location is unique among the ToxWatch monitors in that the largest cancer risk comes from 1,4-dioxane. Total cancer risk at the Gary Ivanhoe site was approximately 34-in-1,000,000, with 26-in-1,000,000 of the risk coming from 1,4-dioxane. The remaining 8-in-1,000,000 risk came from benzene and ethylbenzene. See Table 2.4.2 and Graph 2.4.2 for a visual comparison of risk posed by these pollutants at the Gary IITRI monitor.

When the critical effects of pollutants are considered, the highest hazard index at the Gary Ivanhoe monitor is 1.12, for neurological effects. As with the majority of monitors in the ToxWatch network, most of this neurological hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. See Table 2.4.3 and Graph 2.4.3 for more information on the critical effects analysis at the Gary Ivanhoe monitor.

Table 2.4.1 - Hazard Quotients for Gary Ivanhoe Monitor 1999-2003

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	98.8%	84	0.00032
Benzene	71-43-2	94.2%	206	0.032
Carbon Disulfide	75-15-0	13.1%	84	0.00079
Chloromethane	74-87-3	88.8%	206	0.013
Cyclohexane	100-82-7	35.4%	206	0.000048
Dichlorodifluoromethane (F-12)	75-71-8	94.2%	206	0.0024
1,4-Dioxane	123-91-1	9.6%	52	0.00094
Ethanol	64-17-5	94.0%	84	0.00051
Ethyl Acetate	141-78-6	10.7%	84	0.00068
Ethylbenzene	100-41-4	78.2%	206	0.00037
Heptane	142-82-5	77.7%	206	0.0010
Hexane	110-54-3	80.6%	206	0.0012
Isopropanol	67-63-0	69.0%	84	0.0002
Methyl Ethyl Ketone (MEK)	78-93-3	82.1%	84	0.00034
Propene	115-07-1	96.6%	206	0.00073
Styrene	100-42-5	34.5%	206	0.0006
Toluene	108-88-3	98.1%	206	0.00058
Trichlorofluoromethane (F-11)	75-69-4	90.3%	206	0.0016
1,3,5-Trimethylbenzene	108-67-8	35.9%	206	0.27
1,2,4-Trimethylbenzene	95-63-6	58.7%	206	0.81
o-Xylene	95-47-6	36.9%	206	0.0098
m+p-Xylenes	106-42-3	89.8%	206	0.011

Table 2.4.2 – Cancer Risk Estimates for Gary Ivanhoe Monitor 1999-2003

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	94.2%	206	7.5×10^{-06}
1,4-Dioxane	123-91-1	9.6%	52	2.6×10^{-05}
Ethylbenzene	100-41-4	78.2%	206	9.2×10^{-07}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read 7.3-times10^{-06} as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.4.1 - Hazard Quotients for Gary Ivanhoe Monitor 1999-2003

Graph 2.4.2 – Cancer Risk Estimates for Gary Ivanhoe Monitor 1999-2003

Table 2.4.3 - Critical Effects Analysis for Gary Ivanhoe Monitor 1999-2003

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Dichlorodifluoromethane (F-12)*	75-71-8	0.0024	Acetone	67-64-1	0.00032
Ethanol*	64-17-5	0.00051	Carbon Disulfide	75-15-0	0.00079
Heptane*	142-82-5	0.001	Chloromethane	74-87-3	0.013
Propene	115-07-1	0.00073	Dichlorodifluoromethane (F-12)*	75-71-8	0.0024
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Ethanol*	64-17-5	0.00051
			Heptane*	142-82-5	0.001
			Hexane	110-54-3	0.0012
			Styrene	100-42-5	0.0006
			Toluene	108-88-3	0.00058
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
			1,3,5-Trimethylbenzene	108-67-8	0.27
			1,2,4-Trimethylbenzene	95-63-6	0.81
			o-Xylene	95-47-6	0.0098
			m+p-Xylenes	106-42-3	0.011
	Hazard Index	0.01		**Hazard Index**	1.12
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Cyclohexane	100-82-7	0.000048	Benzene	71-43-2	0.032
Dichlorodifluoromethane (F-12)*	75-71-8	0.0024	Dichlorodifluoromethane (F-12)*	75-71-8	0.0024
Ethanol*	64-17-5	0.00051	1,4-Dioxane	123-91-1	0.00094
Ethylbenzene	100-41-4	0.00037	Ethanol*	64-17-5	0.00051
Heptane*	142-82-5	0.001	Ethyl Acetate	141-78-6	0.00068
Isopropanol	67-63-0	0.0002	Heptane*	142-82-5	0.001
Methyl Ethyl Ketone (MEK)	78-93-3	0.00034	Trichlorofluoromethane (F-11)*	75-69-4	0.0016
Trichlorofluoromethane (F-11)*	75-69-4	0.0016			
	Hazard Index	0.01		**Hazard Index**	0.04

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.4.3 - Critical Effects Analysis for Gary Ivanhoe Monitor 1999-2003
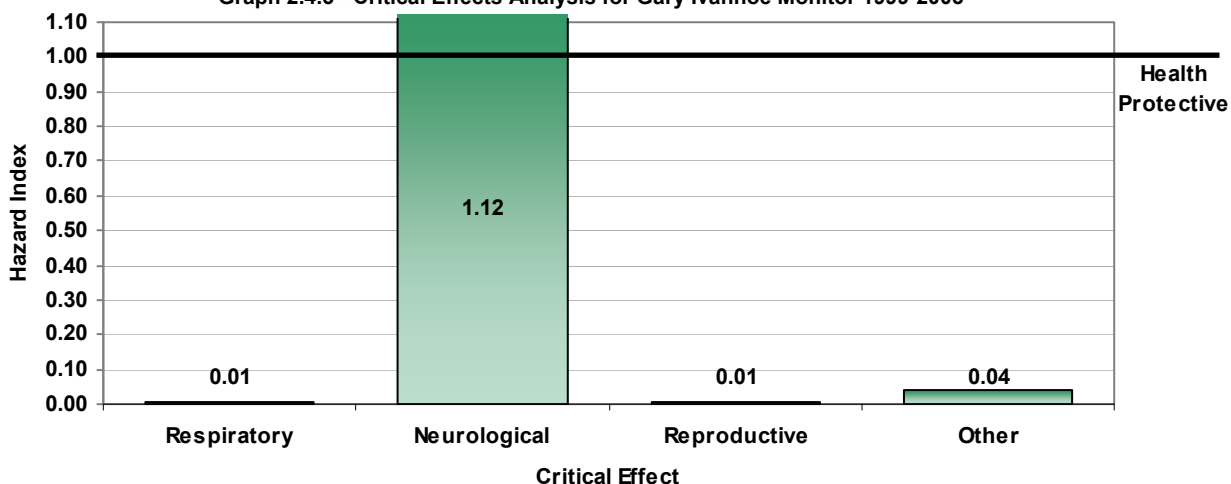
2.4.4   CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to have been trending slightly downwards at the Gary Ivanhoe monitor over the five years of monitoring. Of the twenty-one (21) pollutants at Gary Ivanhoe which had detection rates sufficient to calculate some form of concentration trend, twelve (12) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Seven (7) showed no discernable trend and two (2) showed an increasing trend. Table 2.4.4 shows pertinent summary data about concentrations and trends at the Gary Ivanhoe monitor. Graph 2.4.4 displays the daily concentrations of those pollutants with an increasing trend at the Gary Ivanhoe monitor. Table 2.4.5 shows yearly exposure point concentrations for the Gary Ivanhoe monitor.

Graph 2.4.4 Pollutants with an Increasing Concentration Trend at Gary Ivanhoe Monitor 1999-2003
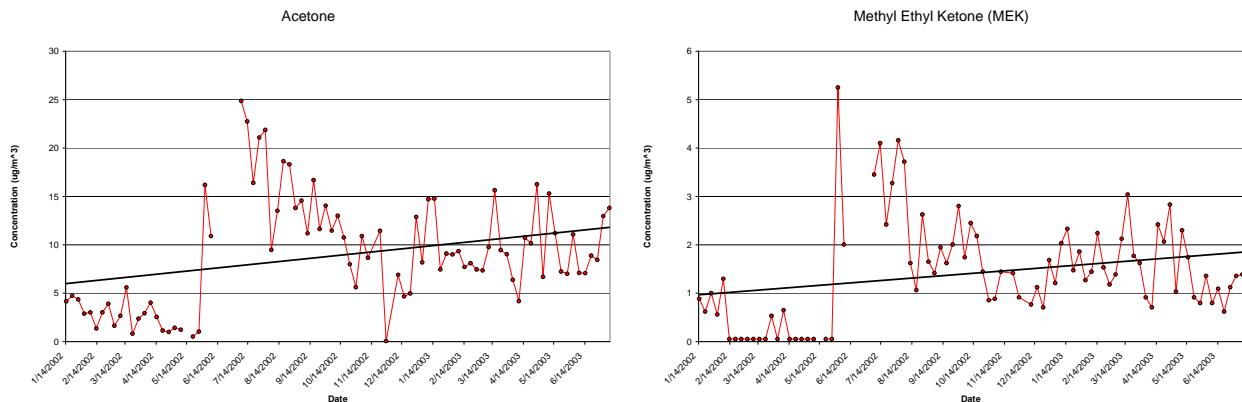
Table 2.4.4 – Concentrations and Trends Summary for Gary Ivanhoe Monitor 1999-2003

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	98.8%	84	↗	9.0	5.7	25	21	10
Acrolein	107-02-8	0.0%	0						
Benzene	71-43-2	94.2%	206	↔	0.88	0.61	5.5	2.0	0.96
Benzyl Chloride	100-44-7	1.2%	84				0.93	0.71	
Bromomethane	74-83-9	0.5%	189				0.43	0.42	
1,3-Butadiene	106-99-0	0.0%	84						
Carbon Disulfide	75-15-0	13.1%	84		0.53	0.12	1.2	0.84	0.55
Carbon Tetrachloride	56-23-5	1.0%	105				0.94	0.82	
Chloromethane	74-87-3	88.8%	206	↔	1.0	1.3	15	2.8	1.2
Cyclohexane	100-82-7	35.4%	206	↘	0.28	0.16	1.5	0.64	0.29
p-Dichlorobenzene	106-46-7	5.3%	206				0.78	0.54	
Dichlorodifluoromethane (F-12)	75-71-8	94.2%	206	↔	2.8	6.2	88	5.2	3.6
Dichloromethane	75-09-2	3.9%	206				0.69	0.47	
1,4-Dioxane	123-91-1	9.6%	52		3.3	0.47	6.1	3.8	3.4
Ethanol	64-17-5	94.0%	84	↔	44	37	170	130	51
Ethyl Acetate	141-78-6	10.7%	84		0.21	0.21	1.9	0.38	0.25
Ethylbenzene	100-41-4	78.2%	206	↘	0.34	0.27	1.6	0.91	0.37
p-Ethyltoluene	622-96-8	45.1%	206	↘	0.93	7.8	110	2.0	1.9
Heptane	142-82-5	77.7%	206	↘	0.40	0.33	2.3	1.1	0.44
Hexane	110-54-3	80.6%	206	↘	0.75	0.67	4.3	2.5	0.83
Isopropanol	67-63-0	69.0%	84	↔	1.2	1.2	5.5	4.7	1.4
Methyl Ethyl Ketone (MEK)	78-93-3	82.1%	84	↗	1.5	0.98	5.3	3.9	1.7
Methyl Isobutyl Ketone (MIBK)	108-10-1	1.2%	84				170	170	
Methyl n-Butyl Ketone (MBK)	591-78-6	1.2%	84				18	2.2	
Propene	115-07-1	96.6%	206	↘	1.9	2.9	23	8.7	2.2
Styrene	100-42-5	34.5%	206	↘	0.49	0.94	9.8	1.5	0.60
Tetrahydrofuran (THF)	109-99-9	6.0%	84				0.91	0.26	
Toluene	108-88-3	98.1%	206	↘	2.5	3.8	38	6.3	2.9
Trichlorotrifluoroethane	76-13-1	38.3%	206	↔	0.51	0.09	0.92	0.69	0.52
1,1,1-Trichloroethane	71-55-6	0.0%	174						
Trichloroethene (TCE)	79-01-6	2.4%	206				3.0	1.2	
Trichlorofluoromethane (F-11)	75-69-4	90.3%	206	↔	1.1	0.36	2.4	1.7	1.1
1,3,5-Trimethylbenzene	108-67-8	35.9%	206	↘	0.87	6.0	85	2.1	1.6
1,2,4-Trimethylbenzene	95-63-6	58.7%	206	↘	3.1	21	300	8.6	5.7
Vinyl Acetate	108-05-4	0.0%	0						
Vinylidene Chloride	75-35-4	0.0%	105						
o-Xylene	95-47-6	36.9%	206	↘	0.76	1.8	20	1.7	0.98
m+p-Xylenes	106-42-3	89.8%	206	↘	0.99	0.83	5.7	2.8	1.1

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.4.5 – Yearly Exposure Point Concentrations for Gary Ivanhoe Monitor 1999-2003

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1				10	11					
Acrolein	107-02-8										
Benzene	71-43-2	1.0	0.97	1.4	0.78	0.87					
Benzyl Chloride	100-44-7										
Bromomethane	74-83-9										
1,3-Butadiene	106-99-0										
Carbon Disulfide	75-15-0				0.58						
Carbon Tetrachloride	56-23-5										
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3										
Chloromethane	74-87-3	0.77	1.1	0.91	2.1	1.1					
Cyclohexane	100-82-7	0.37	0.34	0.39	0.25						
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7										
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.5	2.6	2.7	7.1	2.8					
Dichloromethane	75-09-2		0.50								
1,2-Dichloropropane	78-87-5	1.1									
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.1									
1,4-Dioxane	123-91-1				3.4						
Ethanol	64-17-5				55	50					
Ethyl Acetate	141-78-6				0.29	0.26					
Ethylbenzene	100-41-4	0.69	0.52	0.48	0.23	0.22					
p-Ethyltoluene	622-96-8	19	0.47	0.79							
Heptane	142-82-5	0.60	0.62	0.61	0.30	0.26					
Hexane	110-54-3	1.1	1.1	1.2	0.56	0.4					
Isopropanol	67-63-0				1.6	1.4					
Methyl Ethyl Ketone (MEK)	78-93-3				1.7	1.8					
Methyl Isobutyl Ketone (MIBK)	108-10-1										
Methyl n-Butyl Ketone (MBK)	591-78-6										
Propene	115-07-1	2.0	1.5	1.9	3.7	3.3					
Styrene	100-42-5	1.5	1.2	0.49							
Tetrachloroethene (PCE)	127-18-4										
Tetrahydrofuran (THF)	109-99-9				0.28						
Toluene	108-88-3	3.7	4.4	4.9	1.4	1.5					
Trichlorotrifluoroethane	76-13-1	0.48	0.54	0.55	0.58	0.60					
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6	1.4									
Trichlorofluoromethane (F-11)	75-69-4	0.92	1.2	1.2	1.1	1.2					
1,3,5-Trimethylbenzene	108-67-8	15	0.59	0.69							
1,2,4-Trimethylbenzene	95-63-6	54	3.4	1.7	0.57						
Vinyl Acetate	108-05-4										
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	2.5	2.1	0.68	0.49						
m+p-Xylenes	106-42-3	1.8	1.6	1.4	0.56	0.64					

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
µg/m³ : micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.4.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Gary Ivanhoe monitor is located (census tract 010302 of Lake County) were compared to the mean of readings recorded at the Gary Ivanhoe monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates, and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.4.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. Of note at the Gary Ivanhoe monitor is 1,4-dioxane and, to a lesser extent, carbon disulfide. NATA modeling indicated that 1,4-dioxane concentrations should have been approximately six (6) orders of magnitude lower that what was monitored.

Table 2.4.6 – Comparison of 2002 NATA Concentration Estimates to
2002 Gary Ivanhoe ToxWatch Monitoring Results

ToxWatch Name	CAS	NATA µg/m³	ToxWatch µg/m³	Diff.
Benzene	71-43-2	1.5	0.7	114%
Carbon Disulfide	75-15-0	0.00247	0.55	-100%
Chloromethane	74-87-3	1.21	1.5	-19%
1,4-Dioxane	123-91-1	6.64E-06	3.3	-100%
Ethylbenzene	100-41-4	0.451	0.2	126%
Hexane	110-54-3	0.438	0.48	-9%
Toluene	108-88-3	3.69	1.1	235%
o-Xylene[1]	95-47-6	2.09	0.48	335%
m+p-Xylenes[1]	106-42-3	2.09	0.45	364%

 1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.4.6   CONCLUSIONS

The Gary Ivanhoe air toxics monitor was located in a heavily industrialized area of Northwest Indiana. Despite this, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant. Issues with trimethylbenzenes were more the result of a shortened sampling period than indicative of a unique problem in that area.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appeared to be decreasing for the most part. 57% of trends calculated at this monitor were decreasing. Only 10% were increasing. IDEM is dedicated to reducing air toxics concentrations further here and across the state.

2.5   HAMMOND CAAP

2.5.1   INTRODUCTION

The Hammond – 141st St. (Hammond CAAP) monitor is located at 1300 E. 141st St., Hammond, IN, 46327. It has been monitoring air toxics concentrations from 1989 through the present day. The Hammond CAAP monitor is located in the northwestern portion of the state in Lake County. This area of Indiana is one of the most heavily industrialized areas of the nation. Large emitters of air toxics within Lake County include the U.S. Gary Works facility, the State Line Generating Plant and the BP Products Whiting Facility.

Figure 2.5.1 – Map of Hammond CAAP Monitor and Surrounding Area

2.5.2   METEOROLOGY

Hammond's meteorology and climate is largely influenced by the proximity of Lake Michigan, just several miles to the north and northeast. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperature in the late spring through early fall and its warmer-than-the-nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter month's temperatures slightly warmer and the summer month's temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. The Hammond region averages approximately 40 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions and consequently a
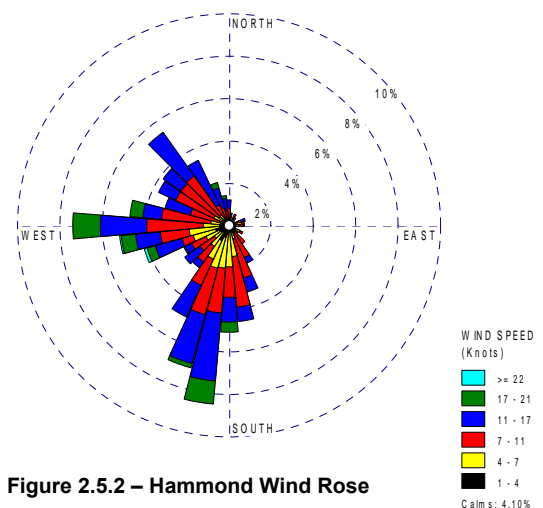
Figure 2.5.2 – Hammond Wind Rose

reduction in the atmospheric mixing of ground level pollutants leading to an increase in pollutant concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.5.2) shows the predominant wind direction to be from a south southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months can create recirculation patterns which lead to higher pollutant concentration especially ozone. Calm winds were reported at the Hammond meteorological site approximately four percent of the time during the year 2008.

2.5.3   RISKS AND HAZARDS

Six out of seven carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.5.2. Of these, benzene and benzyl chloride exceeded a risk estimate of 10-in-1,000,000. Air samples collected from the Hammond CAAP monitor displayed a total risk from measured pollutants of approximately 57-in-1,000,000. Over half of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk at the Hammond CAAP monitor falls to approximately 25-in-1,000,000, still somewhat elevated by U.S. EPA standards, but within the range seen across the state. This remaining risk was made up of benzene, 1,3-butadiene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, and ethylbenzene. All of these individual pollutants displayed a risk above 1-in-1,000,000, except dichloromethane.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Hammond CAAP monitoring location. Its three-year hazard quotient is 130, making it the highest acrolein hazard quotient seen in the study. The second-highest hazard quotient comes from benzyl chloride, with a value of 1.0. As mentioned above, there are some issues with benzyl chloride's data. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.58. While this is below the 1.0 level that may indicate a problem, it is still relatively high so the pollutants have been broken down by critical effect to make it clear that air concentrations are still well below levels that should be of non-carcinogenic concern.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.29, for neurological effects. About ¾ of this hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.5.3 and Graph 2.5.3 for more information on the critical effects analysis at the Hammond CAAP monitor.

Table 2.5.1 - Hazard Quotients for Hammond CAAP Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	78.4%	399	0.00042
Acrolein	107-02-8	93%	129	130
Benzene	71-43-2	95.1%	547	0.050
Benzyl Chloride	100-44-7	8.5%	399	1.0
Bromomethane	74-83-9	15.9%	502	0.10
1,3-Butadiene	106-99-0	10.5%	399	0.080
Carbon Disulfide	75-15-0	16.8%	399	0.00074
Carbon Tetrachloride	56-23-5	9.9%	392	0.0014
Chloromethane	74-87-3	83.9%	547	0.010
Cyclohexane	100-82-7	59.6%	547	0.000090
p-Dichlorobenzene	106-46-7	11.3%	547	0.00031
Dichlorodifluoromethane (F-12)	75-71-8	89.4%	547	0.0016
Dichloromethane	75-09-2	26.5%	547	0.00037
Ethanol	64-17-5	85.0%	399	0.00052
Ethyl Acetate	141-78-6	38.8%	399	0.0014
Ethylbenzene	100-41-4	75.5%	547	0.00047
Heptane	142-82-5	82.3%	547	0.0020
Hexane	110-54-3	90.3%	547	0.0031
Isopropanol	67-63-0	60.4%	399	0.00013
Methyl Ethyl Ketone (MEK)	78-93-3	90.5%	399	0.00072
Methyl Isobutyl Ketone (MIBK)	108-10-1	24.3%	399	0.00012
Methyl n-Butyl Ketone (MBK)	591-78-6	31.8%	399	0.011
Propene	115-07-1	92.0%	547	0.00093
Styrene	100-42-5	19.6%	547	0.0004
Tetrahydrofuran (THF)	109-99-9	15.5%	399	0.0071
Toluene	108-88-3	96.7%	547	0.00064
1,1,1-Trichloroethane	71-55-6	10.5%	493	0.00018
Trichlorofluoromethane (F-11)	75-69-4	89.2%	547	0.0016
1,3,5-Trimethylbenzene	108-67-8	18.3%	547	0.070
1,2,4-Trimethylbenzene	95-63-6	53.4%	547	0.17
Vinyl Acetate	108-05-4	82.8%	134	0.050
o-Xylene	95-47-6	42.6%	547	0.0062
m+p-Xylenes	106-42-3	85.6%	547	0.013

Table 2.5.2 - Risk Estimates for Hammond CAAP Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	95.1%	547	1.2×10^{-05}
Benzyl Chloride	100-44-7	8.5%	399	3.2×10^{-05}
1,3-Butadiene	106-99-0	10.5%	399	4.8×10^{-06}
Carbon Tetrachloride	56-23-5	9.9%	392	4.0×10^{-06}
p-Dichlorobenzene	106-46-7	11.3%	547	2.8×10^{-06}
Dichloromethane	75-09-2	26.5%	547	1.7×10^{-07}
Ethylbenzene	100-41-4	75.5%	547	1.2×10^{-06}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read $7.3\text{-times}10^{-06}$ as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.5.1 - Hazard Quotients Hammond CAAP Monitor 1999-2008
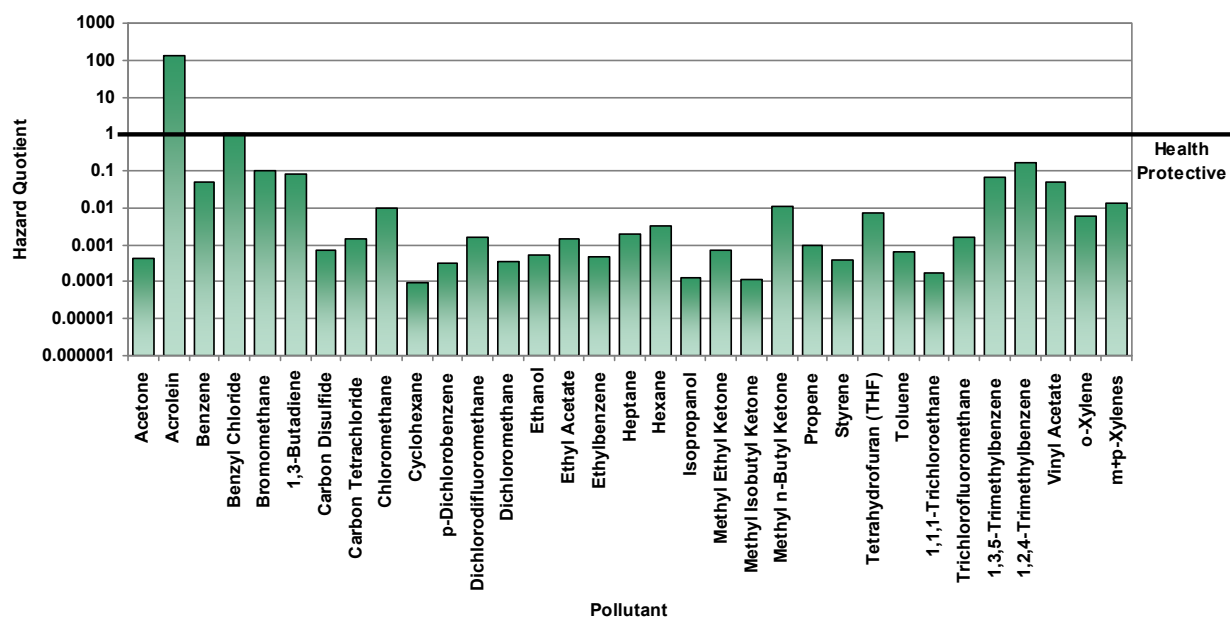
Graph 2.5.2 - Risk Estimates for Hammond CAAP Monitor 1999-2008
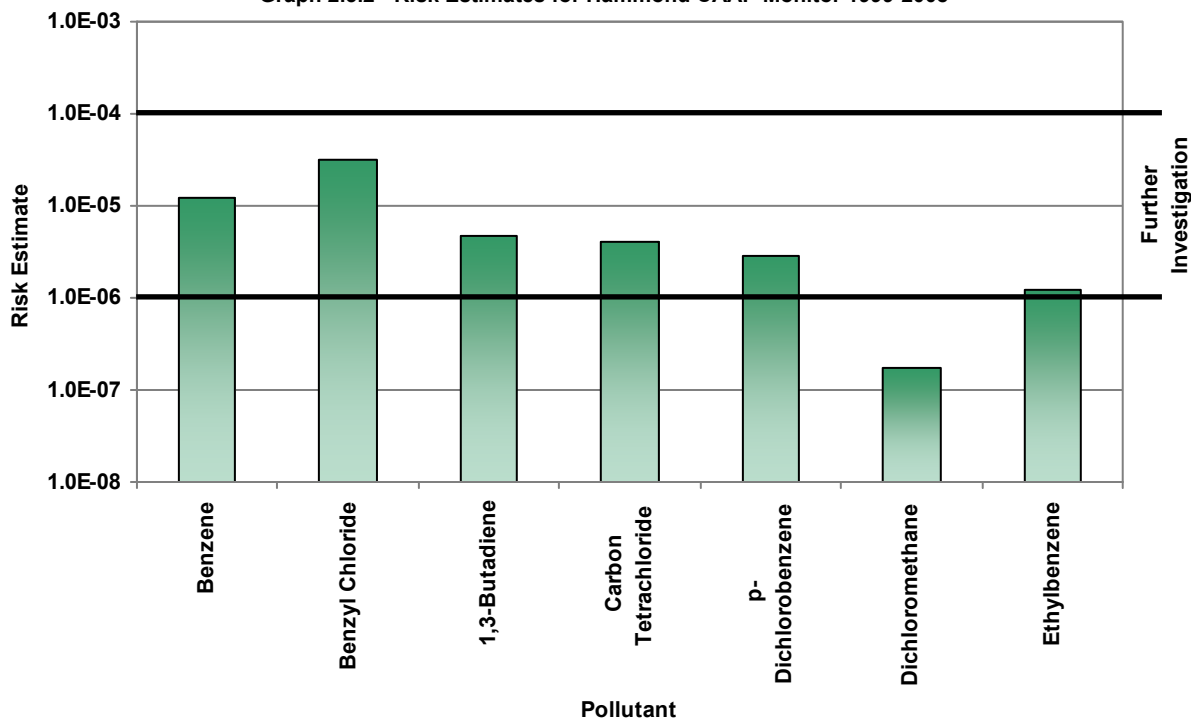
Table 2.5.3 - Critical Effects Analysis for Hammond CAAP Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.10	Acetone	67-64-1	0.00042
Dichlorodifluoromethane (F-12)*	75-71-8	0.0016	Carbon Disulfide	75-15-0	0.00074
Ethanol*	64-17-5	0.00052	Chloromethane	74-87-3	0.010
Heptane*	142-82-5	0.0020	Dichlorodifluoromethane (F-12)*	75-71-8	0.0016
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.011	Ethanol*	64-17-5	0.00052
Propene	115-07-1	0.00093	Heptane*	142-82-5	0.0020
Tetrahydrofuran (THF)	109-99-9	0.0071	Hexane	110-54-3	0.0031
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.011
Vinyl Acetate	108-05-4	0.050	Styrene	100-42-5	0.00040
			Toluene	108-88-3	0.00064
			1,1,1-Trichloroethane	71-55-6	0.00018
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
			1,3,5-Trimethylbenzene	108-67-8	0.070
			1,2,4-Trimethylbenzene	95-63-6	0.17
			o-Xylene	95-47-6	0.0062
			m+p-Xylenes	106-42-3	0.013
Hazard Index		**0.17**	**Hazard Index**		**0.29**
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
1,3-Butadiene	106-99-0	0.080	Benzene	71-43-2	0.050
Cyclohexane	100-82-7	0.000090	Carbon Tetrachloride	56-23-5	0.0014
p-Dichlorobenzene	106-46-7	0.00031	Dichlorodifluoromethane (F-12)*	75-71-8	0.0016
Dichlorodifluoromethane (F-12)*	75-71-8	0.0016	Dichloromethane	75-09-2	0.00037
Ethanol*	64-17-5	0.00052	Ethanol*	64-17-5	0.00052
Ethylbenzene	100-41-4	0.00047	Ethyl Acetate	141-78-6	0.0014
Heptane*	142-82-5	0.0020	Heptane*	142-82-5	0.0020
Isopropanol	67-63-0	0.00013	Isopropanol	67-63-0	0.00013
Methyl Ethyl Ketone (MEK)	78-93-3	0.00072	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.011
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00012	Tetrahydrofuran (THF)	109-99-9	0.0071
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.011	Trichlorofluoromethane (F-11)*	75-69-4	0.0016
Trichlorofluoromethane (F-11)*	75-69-4	0.0016			
Hazard Index		**0.10**	**Hazard Index**		**0.080**

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.5.3 - Critical Effect Analysis for Hammond CAAP Monitor 1999-2008
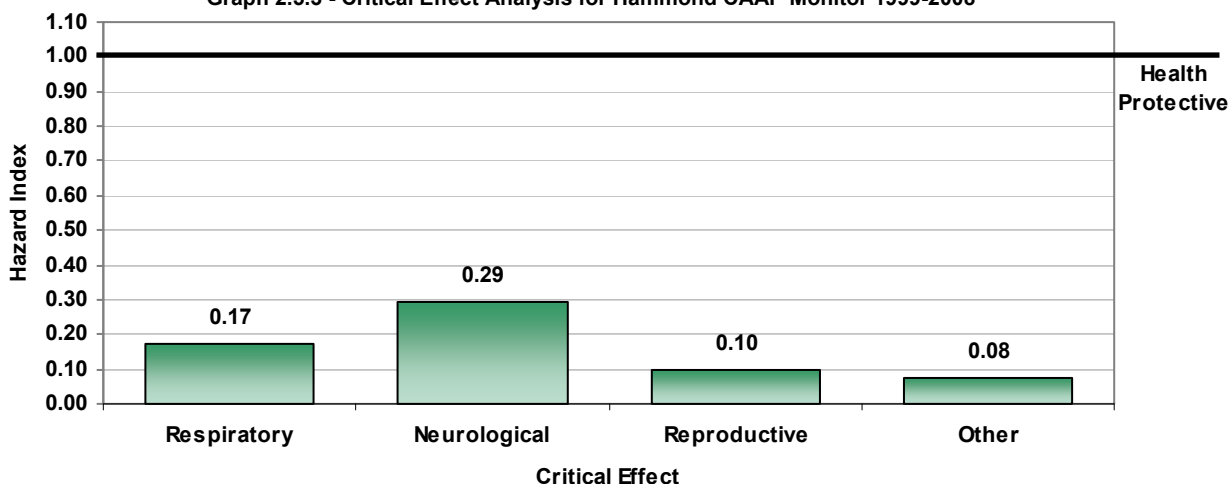
2.5.4   CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be steady or trending very slightly downwards at the Hammond CAAP monitor over the last decade. Of the twenty-four (24) pollutants at Hammond CAAP which had detection rates sufficient to calculate some form of concentration trend, nine (9) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Eleven (11) showed no discernable trend and four (4) showed an increasing trend. Table 2.5.4 shows pertinent summary data about concentrations and trends at the Hammond CAAP monitor. Graph 2.5.4 displays the daily concentrations of those pollutants with an increasing trend at the Hammond CAAP monitor. Table 2.5.5 shows yearly exposure point concentrations for the Hammond CAAP monitor.

Graph 2.5.4 Pollutants with an Increasing Concentration Trend at Hammond CAAP Monitor 1999-2008
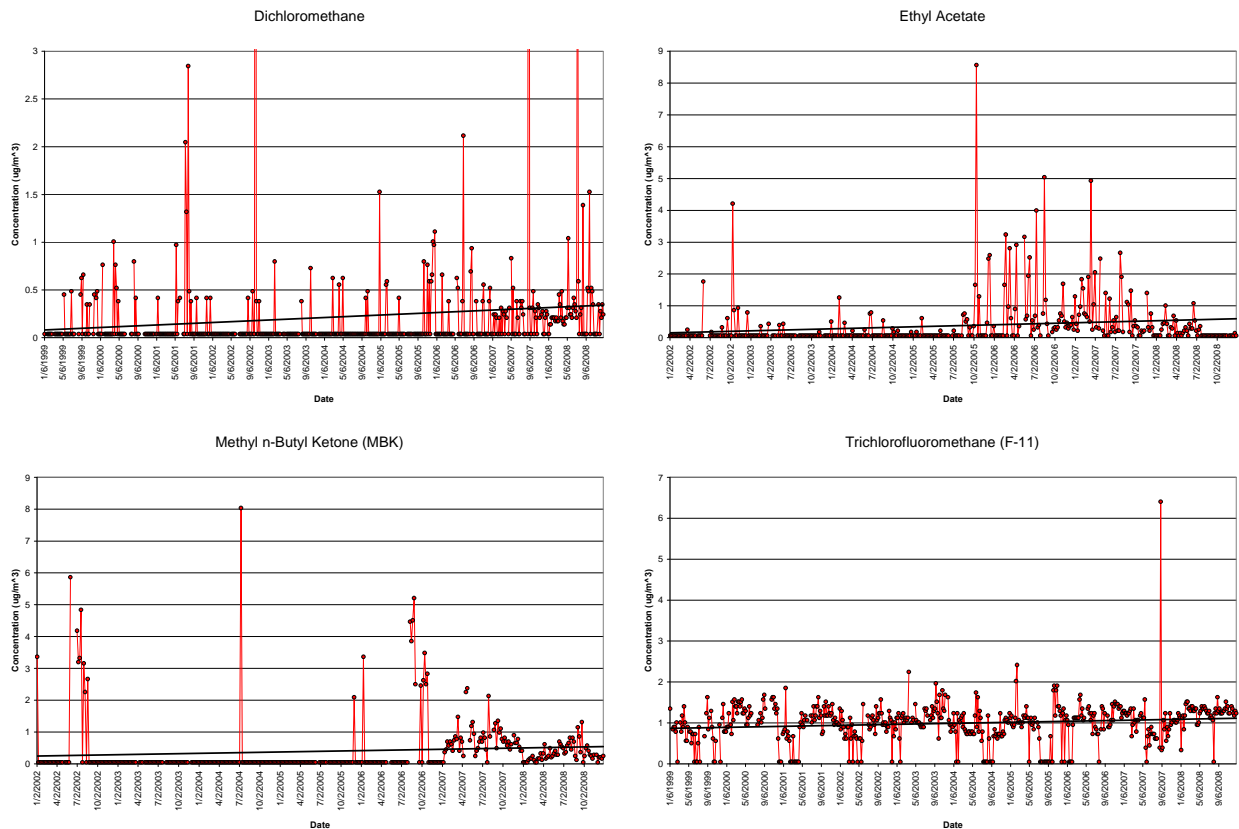
Table 2.5.4 – Concentrations and Trends Summary for Hammond CAAP Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³
Acetone	67-64-1	78.4%	399	↘	12	15	100	51	13
Acrolein	107-02-8	93%	129	↘	2.2	2.7	18	8.7	2.5
Benzene	71-43-2	95.1%	547	↔	1.4	1.2	10	4.5	1.5
Benzyl Chloride	100-44-7	8.5%	399		0.62	0.46	5.7	3.6	0.66
Bromomethane	74-83-9	15.9%	502		0.38	1.6	36	0.78	0.5
1,3-Butadiene	106-99-0	10.5%	399		0.13	0.40	7.6	0.67	0.16
Carbon Disulfide	75-15-0	16.8%	399		0.35	2.0	39	1.1	0.52
Carbon Tetrachloride	56-23-5	9.9%	392		0.24	0.34	6.1	0.82	0.27
Chloromethane	74-87-3	83.9%	547	↔	0.84	0.89	14	1.7	0.91
Cyclohexane	100-82-7	59.6%	547	↔	0.48	0.76	8.6	2.1	0.54
p-Dichlorobenzene	106-46-7	11.3%	547		0.23	0.22	2.5	1.0	0.25
Dichlorodifluoromethane (F-12)	75-71-8	89.4%	547	↔	2.2	3.3	75	3.5	2.4
Dichloromethane	75-09-2	26.5%	547	↗	0.31	0.89	15	0.90	0.37
1,4-Dioxane	123-91-1	4.1%	345				5.9	3.1	
Ethanol	64-17-5	85.0%	399	↔	47	66	780	210	52
Ethyl Acetate	141-78-6	38.8%	399	↗	0.43	0.78	8.6	2.5	0.50
Ethylbenzene	100-41-4	75.5%	547	↘	0.43	0.55	9.2	1.3	0.47
p-Ethyltoluene	622-96-8	32.4%	547	↘	0.30	0.32	3.8	0.89	0.33
Heptane	142-82-5	82.3%	547	↔	0.75	1.2	21	3.0	0.84
Hexane	110-54-3	90.3%	547	↔	2.0	2.6	20	8.6	2.2
Isopropanol	67-63-0	60.4%	399	↔	0.84	1.0	6.9	3.4	0.93
Methyl Ethyl Ketone (MEK)	78-93-3	90.5%	399	↔	3.3	3.5	28	13	3.6
Methyl Isobutyl Ketone (MIBK)	108-10-1	24.3%	399		0.31	0.54	170	170	0.36
Methyl n-Butyl Ketone (MBK)	591-78-6	31.8%	399	↗	0.52	0.92	8.0	3.2	0.60
Propene	115-07-1	92.0%	547	↘	2.5	4.1	47	12	2.8
Styrene	100-42-5	19.6%	547		0.32	1.1	14	1.1	0.40
Tetrahydrofuran (THF)	109-99-9	15.5%	399		0.22	0.38	6.1	0.66	0.25
Toluene	108-88-3	96.7%	547	↘	2.9	3.6	35	11	3.2
Trichlorotrifluoroethane	76-13-1	52.5%	547	↔	0.47	0.28	3.8	0.84	0.49
1,1,1-Trichloroethane	71-55-6	10.5%	493		0.17	0.058	2.2	2.2	0.18
Trichloroethene (TCE)	79-01-6	3.3%	547				6.3	1.2	
Trichlorofluoromethane (F-11)	75-69-4	89.2%	547	↗	1.0	0.43	6.4	1.6	1.1
1,3,5-Trimethylbenzene	108-67-8	18.3%	547		0.38	0.61	11	0.77	0.42
1,2,4-Trimethylbenzene	95-63-6	53.4%	547	↘	1.0	2.3	39	4.5	1.2
Vinyl Acetate	108-05-4	82.8%	134	↘	8.2	13	90	42	10
Vinylidene Chloride	75-35-4	0.3%	392				5.9	0.62	
o-Xylene	95-47-6	42.6%	547	↔	0.50	1.6	26	1.6	0.62
m+p-Xylenes	106-42-3	85.6%	547	↘	1.2	1.2	8.6	4.3	1.3

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
μg/m³ : micrograms per cubic meter

Table 2.5.5 – Yearly Exposure Point Concentrations for Hammond CAAP Monitor 1999-2008

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1				26	13	8.3	12	27	14	6
Acrolein	107-02-8								5.3	3.2	1.5
Benzene	71-43-2	1.6	1.9	2.7	1.4	1.4	1.2	1.5	2.0	1.4	1.5
Benzyl Chloride	100-44-7						0.79	1.9			
Bromomethane	74-83-9						0.6	0.61	0.57		0.33
1,3-Butadiene	106-99-0									0.62	0.18
Carbon Disulfide	75-15-0							0.62	0.75	0.44	2.1
Carbon Tetrachloride	56-23-5									0.59	
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3									0.27	
Chloromethane	74-87-3	0.81	1.1	0.92	2.1	0.91	0.43	0.77	0.93	0.94	0.89
Cyclohexane	100-82-7	1.4	0.90	1.1	0.44	0.43	0.40	0.65	0.63	0.49	0.40
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7			0.65					0.40	0.43	0.31
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.5	2.3	2.3	5.7	2.5	1.5	2.1	2.4	2.2	2.6
Dichloromethane	75-09-2	0.39	0.46	0.59	1.0		0.48	0.51	0.51	1.0	0.55
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.2									
1,4-Dioxane	123-91-1									0.52	0.33
Ethanol	64-17-5				100	77	38	26	50	67	67
Ethyl Acetate	141-78-6				0.47	0.22	0.31	0.82	1.1	0.97	0.29
Ethylbenzene	100-41-4	0.64	1.2	0.89	0.37	0.37	0.41	0.42	0.37	0.38	0.46
p-Ethyltoluene	622-96-8	0.35	0.67	0.67	0.27			0.44	0.42	0.24	0.23
Heptane	142-82-5	0.92	2.3	1.7	0.63	0.46	0.54	0.61	1.0	0.86	0.75
Hexane	110-54-3	3.3	2.6	4.6	2.4	1.6	1.8	1.9	2.9	2.0	2.5
Isopropanol	67-63-0				1.6	0.81	0.85	1.0	2.0	0.91	0.73
Methyl Ethyl Ketone (MEK)	78-93-3				5.8	2.3	2.2	3.2	7.3	4.3	2.8
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.60	0.36
Methyl n-Butyl Ketone (MBK)	591-78-6				2.6				2.8	0.90	0.41
Propene	115-07-1	2.8	2.6	5.1	6.3	4.8	1.3	2.3	3.7	1.8	2.5
Styrene	100-42-5	0.83	2.4	0.42							0.14
Tetrachloroethene (PCE)	127-18-4									0.42	0.28
Tetrahydrofuran (THF)	109-99-9							0.54	0.33	0.49	0.33
Toluene	108-88-3	7.1	6.6	5.9	3.0	3.2	2.0	2.6	2.4	2.2	2.7
Trichlorotrifluoroethane	76-13-1	0.63	0.75	0.58	0.57	0.57	0.64	0.59	0.59	0.70	0.55
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6									0.25	0.17
Trichloroethene (TCE)	79-01-6									0.50	
Trichlorofluoromethane (F-11)	75-69-4	0.92	1.3	1.1	0.99	1.3	0.94	1.1	1.2	1.2	1.3
1,3,5-Trimethylbenzene	108-67-8	0.75	0.77	0.95				0.46	0.41	0.26	
1,2,4-Trimethylbenzene	95-63-6	5.6	4.1	1.7	0.63		0.43	0.69	0.65	0.46	0.41
Vinyl Acetate	108-05-4								5.9	17	6.7
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	0.83	3.5	0.92	0.60	0.62	0.65	0.57	0.57	0.40	0.42
m+p-Xylenes	106-42-3	2.1	2.2	2.5	1.0	1.1	1.3	1.1	0.91	1.1	1.3

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
**µg/m³ :** micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.5.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Hammond CAAP monitor is located (census tract 020300 of Lake County) were compared to the mean of readings recorded at the Hammond CAAP monitor for 2002. Unfortunately, there were only a handful of pollutants for which 2002 NATA had estimates and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.5.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. Of note at the Hammond CAAP monitor are hexane concentrations much higher than modeled by NATA. Hexane is a relatively non-toxic compound and the measured concentrations are still well within health-protective limits.

Table 2.5.6 – Comparison of 2002 NATA Concentration Estimates to
2002 Hammond CAAP ToxWatch Monitoring Results

ToxWatch Name	CAS	NATA µg/m³	ToxWatch µg/m³	Diff.
Benzene	71-43-2	1.14	1.2	-5%
Chloromethane	74-87-3	1.2	1.5	-20%
Dichloromethane	75-09-2	0.208	0.6	-65%
Ethylbenzene	100-41-4	0.303	0.3	1%
Hexane	110-54-3	0.343	1.9	-82%
Toluene	108-88-3	2.62	2.3	14%
o-Xylene[1]	95-47-6	1.48	0.57	160%
m+p-Xylenes[1]	106-42-3	1.48	0.81	83%

1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.5.6   CONCLUSIONS

The Hammond CAAP air toxics monitor is located in a heavily industrialized area of Northwest Indiana. Despite this, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to be slightly decreasing for the most part. 38% of trends calculated at this monitor were decreasing. Only 17% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.6   OGDEN DUNES

2.6.1   INTRODUCTION

The Ogden Dunes monitor is located at the Water Treatment Plant, 84 Diana Rd., Ogden Dunes, IN, 46368. It has been monitoring air toxics concentrations from 1998 through present day. The Ogden Dunes monitor is located in the northwestern portion of the state in Porter County. This area of Indiana is one of the most heavily industrialized areas of the nation. Large emitters of air toxics within Porter County include ISG Burns Harbor Plant, U.S. Steel Corporations Midwest Plant, and the Bailey Electric Generating Station.
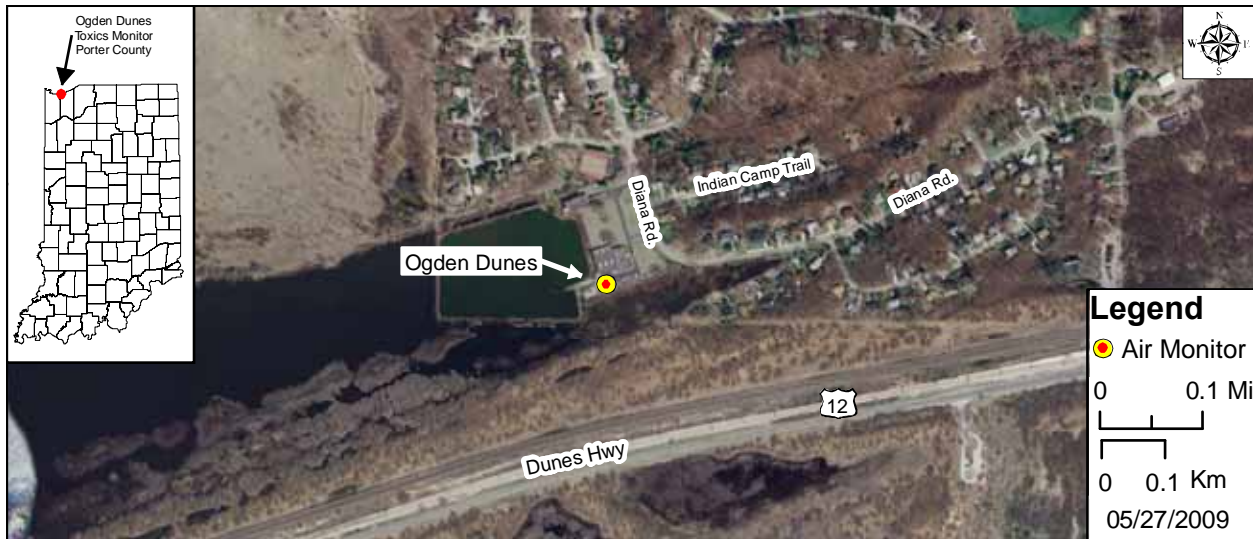
Figure 2.6.1 – Map of Ogden Dunes Monitor and Surrounding Area

2.6.2   METEOROLOGY

Ogden Dunes' meteorology and climate is largely influenced by its proximity to Lake Michigan. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperature in the late spring through early fall, and its warmer-than-the-nearby-land water temperature from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. The area averages approximately 39 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions and consequently a reduction in the atmospheric mixing of ground level pollutants leading to an
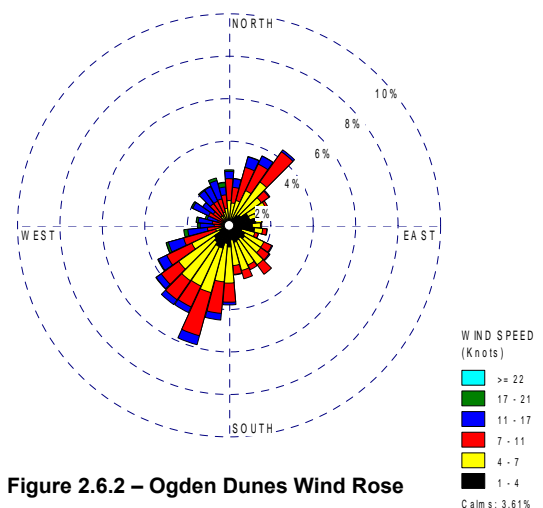
Figure 2.6.2 – Ogden Dunes Wind Rose

increase in pollutant concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack, creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.6.2) shows the predominant wind direction to be from a south to southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months can create recirculation patterns which lead to higher pollutant concentration especially ozone. Calm winds were reported approximately four percent of the time at the Dune Acres meteorological site (the site closest to Ogden Dunes) during 2008.

2.6.3   RISKS AND HAZARDS

Only one of the four carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. This one was carbon tetrachloride, which is no longer emitted, and is generally considered a global background pollutant. Carbon tetrachloride, and other carcinogens detected at Ogden Dunes, along with their risk estimates, are available in Table 2.6.2. Air samples collected from the Ogden Dunes monitor displayed a total risk from measured pollutants of approximately 5.3-in-1,000,000, still somewhat elevated by U.S. EPA standards, but by far the lowest risk measured across the state. Other carcingens with calculable risk estimates at Ogden Dunes included benzene, ethylbenzene, and dichloromethane.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Ogden Dunes monitoring location. Its three-year hazard quotient is 72, making it the lowest acrolein hazard index seen in the study. When all other monitored pollutants' hazard quotients are combined, the result is a hazard index of 0.21. The second-highest hazard quotient comes from 1,2,4-trimethylbenzene, with a value of 0.093.

When the critical effects of pollutants are considered, and acrolein is excluded, the highest hazard index is 0.13, for neurological effects. About ¾ of this hazard is posed by 1,2,4-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.6.3 and Graph 2.6.3 for more information on the critical effects analysis at the Ogden Dunes monitor.

Table 2.6.1 - Hazard Quotients for Ogden Dunes Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	94.4%	392	0.00027
Acrolein	107-02-8	85.4%	130	72
Benzene	71-43-2	86.9%	557	0.0037
Bromomethane	74-83-9	16.7%	509	0.060
Carbon Disulfide	75-15-0	9.9%	392	0.00066
Carbon Tetrachloride	56-23-5	10.6%	397	0.0013
Chloromethane	74-87-3	85.6%	557	0.010
Cyclohexane	100-82-7	15.3%	557	0.000030
Dichlorodifluoromethane (F-12)	75-71-8	90.7%	557	0.0019
Dichloromethane	75-09-2	11.5%	557	0.00016
Ethanol	64-17-5	82.1%	392	0.00027
Ethyl Acetate	141-78-6	22.2%	392	0.0010
Ethylbenzene	100-41-4	44.9%	557	0.00030
Heptane	142-82-5	56.4%	557	0.00065
Hexane	110-54-3	65.5%	557	0.00070
Isopropanol	67-63-0	53.3%	392	0.00012
Methyl Ethyl Ketone (MEK)	78-93-3	88.5%	392	0.00042
Methyl Isobutyl Ketone (MIBK)	108-10-1	14.0%	392	0.000083
Methyl n-Butyl Ketone (MBK)	591-78-6	22.2%	392	0.0082
Propene	115-07-1	91.4%	557	0.00050
Styrene	100-42-5	14.4%	557	0.00036
Toluene	108-88-3	90.8%	557	0.00022
Trichlorofluoromethane (F-11)	75-69-4	89.8%	557	0.0014
1,2,4-Trimethylbenzene	95-63-6	35.2%	557	0.093
Vinyl Acetate	108-05-4	73.7%	133	0.012
o-Xylene	95-47-6	14.4%	557	0.0033
m+p-Xylenes	106-42-3	63.4%	557	0.0075

Table 2.6.2 - Risk Estimates for Ogden Dunes Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	86.9%	557	8.6×10^{-07}
Carbon Tetrachloride	56-23-5	10.6%	397	3.6×10^{-06}
Dichloromethane	75-09-2	11.5%	557	7.5×10^{-08}
Ethylbenzene	100-41-4	44.9%	557	7.5×10^{-07}

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CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read $7.3\text{-times}10^{-06}$ as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.6.1 - Hazard Quotients for Ogden Dunes Monitor 1999-2008
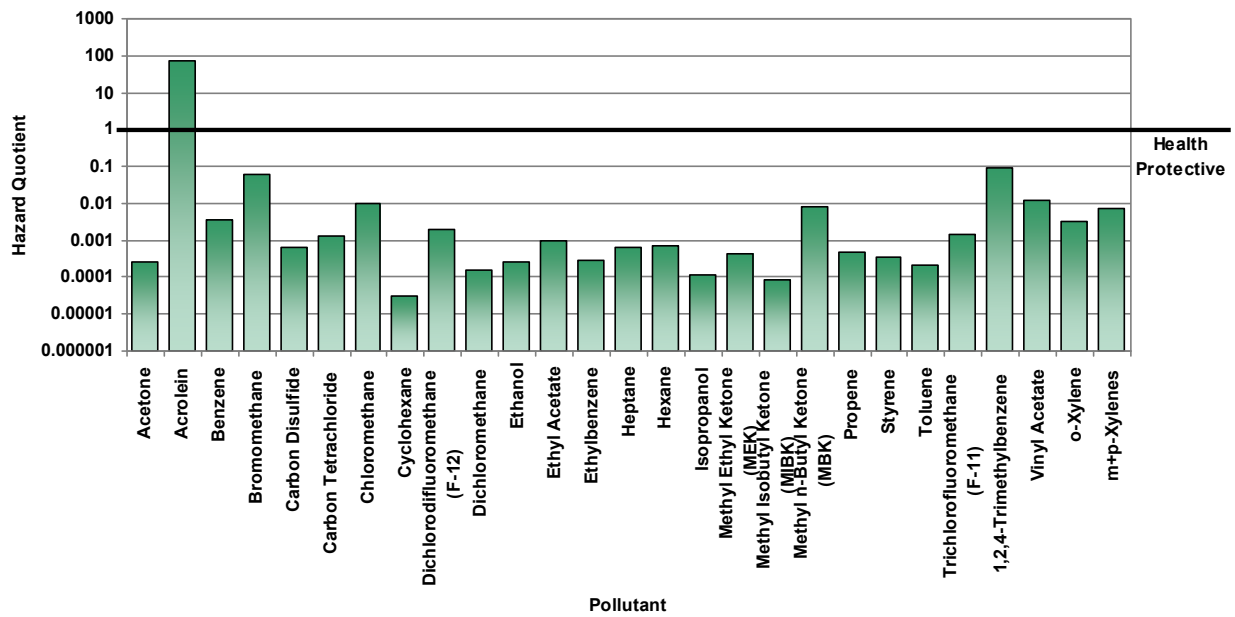
Graph 2.6.2 - Risk Estimates for Ogden Dunes Monitor 1999-2008
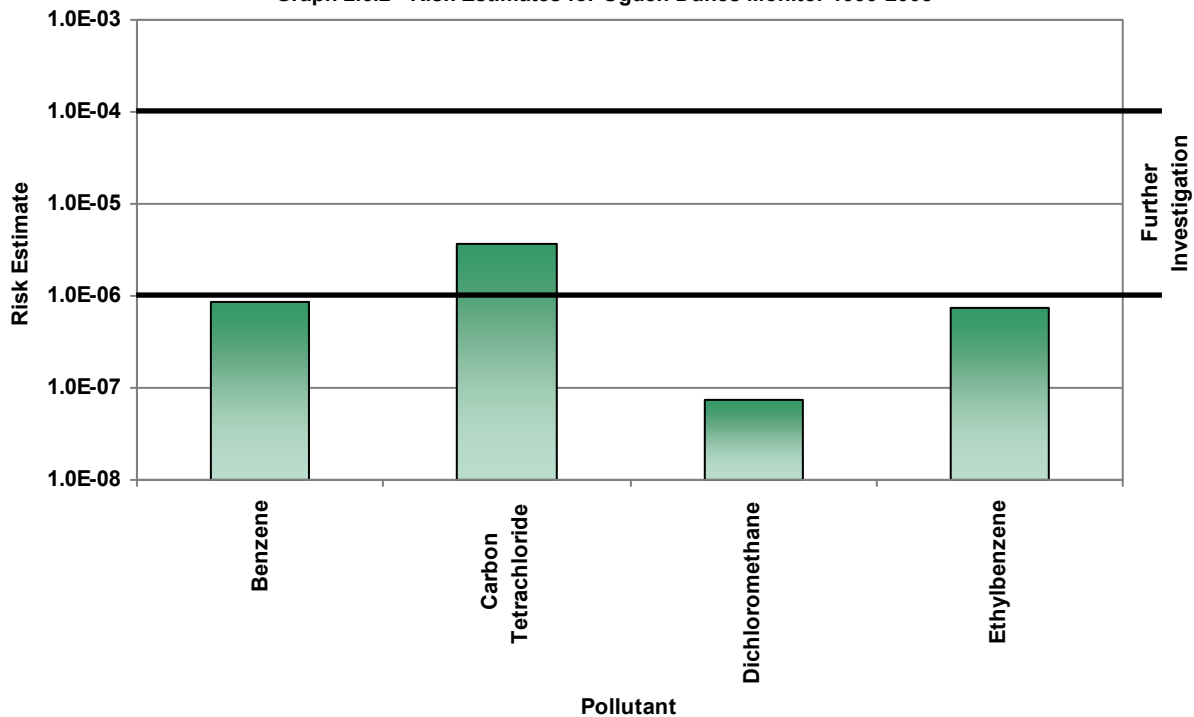
Table 2.6.3 - Critical Effects Analysis for Ogden Dunes Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.060	Acetone	67-64-1	0.00027
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Carbon Disulfide	75-15-0	0.00066
Ethanol*	64-17-5	0.00027	Chloromethane	74-87-3	0.010
Heptane*	142-82-5	0.00065	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0082	Ethanol*	64-17-5	0.00027
Propene	115-07-1	0.00050	Heptane*	142-82-5	0.00065
Trichlorofluoromethane (F-11)*	75-69-4	0.0014	Hexane	110-54-3	0.00070
Vinyl Acetate	108-05-4	0.012	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0082
			Styrene	100-42-5	0.00036
			Toluene	108-88-3	0.00022
			Trichlorofluoromethane (F-11)*	75-69-4	0.0014
			1,2,4-Trimethylbenzene	95-63-6	0.093
			o-Xylene	95-47-6	0.0033
			m+p-Xylenes	106-42-3	0.0075
	Hazard Index	0.080		**Hazard Index**	0.13
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Cyclohexane	100-82-7	0.000030	Benzene	71-43-2	0.0037
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Carbon Tetrachloride	56-23-5	0.0013
Ethanol*	64-17-5	0.00027	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Ethylbenzene	100-41-4	0.00030	Dichloromethane	75-09-2	0.00016
Heptane*	142-82-5	0.00065	Ethanol*	64-17-5	0.00027
Isopropanol	67-63-0	0.00012	Ethyl Acetate	141-78-6	0.0010
Methyl Ethyl Ketone (MEK)	78-93-3	0.00042	Heptane*	142-82-5	0.00065
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.000083	Isopropanol	67-63-0	0.00012
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0082	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0082
Trichlorofluoromethane (F-11)*	75-69-4	0.0014	Trichlorofluoromethane (F-11)*	75-69-4	0.0014
	Hazard Index	0.010		**Hazard Index**	0.020

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.6.3 - Critical Effect Analysis for Ogden Dunes Monitor 1999-2008
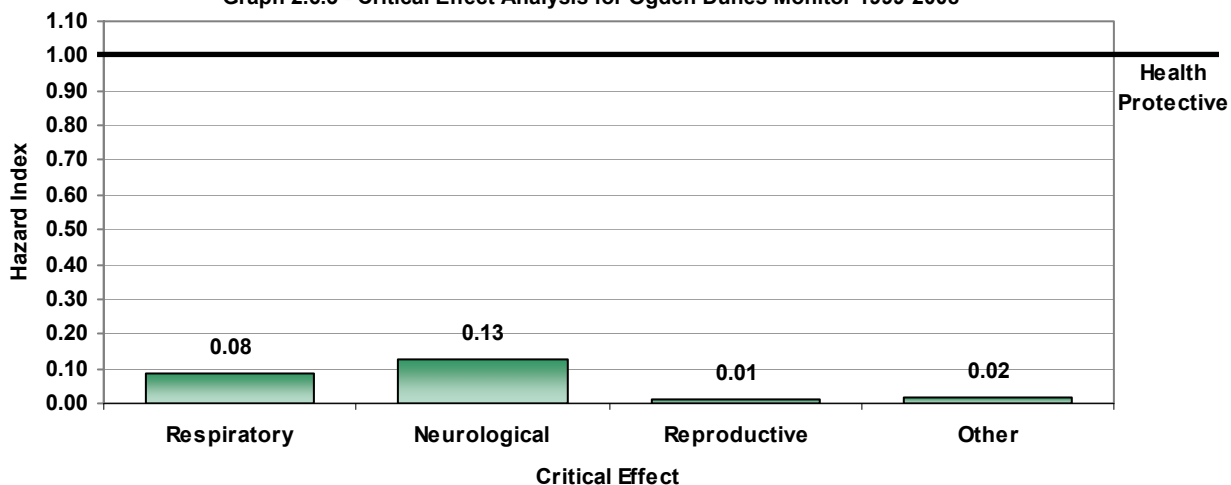
2.6.4 CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be trending downwards at the Ogden Dunes monitor over the last decade. Of the eighteen (18) pollutants at Ogden Dunes which had detection rates sufficient to calculate some form of concentration trend, twelve (12) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Four (4) showed no discernable trend and two (2) showed an increasing trend. Table 2.6.4 shows pertinent summary data about concentrations and trends at the Ogden Dunes monitor. Graph 2.6.4 displays the daily concentrations of those pollutants with an increasing trend at the Ogden Dunes monitor. Table 2.6.5 shows yearly exposure point concentrations for the Ogden Dunes monitor.

Graph 2.6.4 Pollutants with an Increasing Concentration Trend at Ogden Dunes Monitor 1999-2008
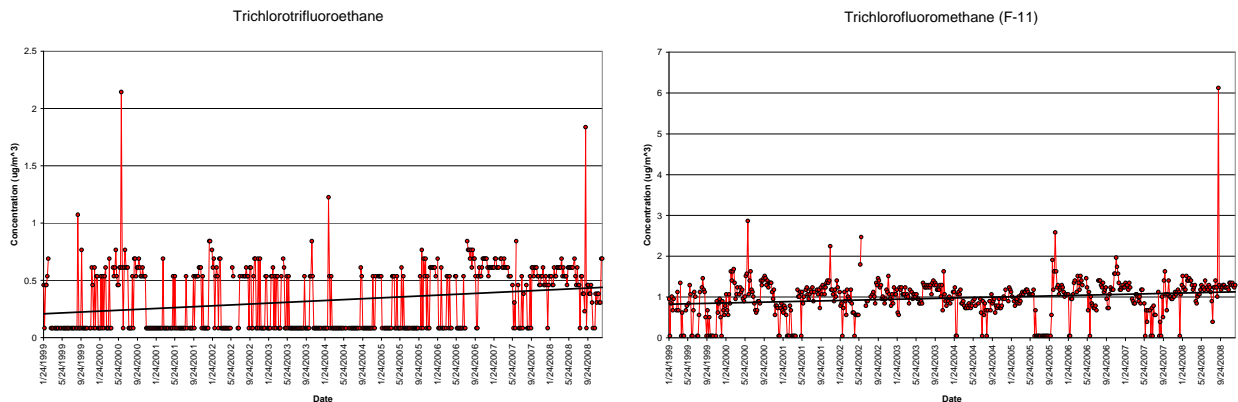
Table 2.6.4 – Concentrations and Trends Summary for Ogden Dunes Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	94.4%	392	↘	7.8	7.3	50	26	8.4
Acrolein	107-02-8	85.4%	130	↘	1.3	.0.98	5.1	3.4	1.4
Benzene	71-43-2	86.9%	557	↘	0.38	3.8	5.3	1.7	0.11
Benzyl Chloride	100-44-7	4.3%	392				3.6	3.6	
Bromomethane	74-83-9	16.7%	509		0.28	0.23	1.8	0.81	0.30
1,3-Butadiene	106-99-0	4.8%	392				0.75	0.67	
Carbon Disulfide	75-15-0	9.9%	392		0.35	1.3	18	1.9	0.46
Carbon Tetrachloride	56-23-5	10.6%	397		0.23	0.16	2.1	0.82	0.24
Chloromethane	74-87-3	85.6%	557	↔	0.87	0.95	11	1.7	0.94
Cyclohexane	100-82-7	15.3%	557		0.16	0.29	3.6	0.40	0.18
p-Dichlorobenzene	106-46-7	7.0%	557				3.2	1.0	
Dichlorodifluoromethane (F-12)	75-71-8	90.7%	557	↔	2.5	4.4	93	4.1	2.8
Dichloromethane	75-09-2	11.5%	557		0.15	0.13	1.1	0.42	0.16
1,4-Dioxane	123-91-1	3.6%	332				3.5	3.1	
Ethanol	64-17-5	82.1%	392	↘	24	31	290	110	27
Ethyl Acetate	141-78-6	22.2%	392		0.28	1.1	20	0.92	0.38
Ethylbenzene	100-41-4	44.9%	557	↘	0.22	1.0	24	0.61	0.30
p-Ethyltoluene	622-96-8	18.3%	557		0.25	0.26	3.8	0.61	0.27
Heptane	142-82-5	56.4%	557	↘	0.26	0.31	5.1	0.74	0.28
Hexane	110-54-3	65.5%	557	↘	0.43	0.78	11	1.4	0.49
Isopropanol	67-63-0	53.3%	392	↔	0.72	1.1	12	3.3	0.82
Methyl Ethyl Ketone (MEK)	78-93-3	88.5%	392	↔	1.9	1.8	15	6.7	2.1
Methyl Isobutyl Ketone (MIBK)	108-10-1	14.0%	392		0.21	0.51	170	170	0.25
Methyl n-Butyl Ketone (MBK)	591-78-6	22.2%	392		0.36	1.2	18	2.2	0.47
Propene	115-07-1	91.4%	557	↘	1.3	1.9	17	5.8	1.5
Styrene	100-42-5	14.4%	557		0.32	0.52	10	0.67	0.36
Tetrahydrofuran (THF)	109-99-9	7.4%	392				0.94	0.59	
Toluene	108-88-3	90.8%	557	↘	0.98	1.1	11	3.5	1.1
Trichlorotrifluoroethane	76-13-1	47.6%	557	↗	0.43	0.24	2.1	0.84	0.45
1,1,1-Trichloroethane	71-55-6	0.0%	497						
Trichloroethene (TCE)	79-01-6	2.5%	557				6.0	1.2	
Trichlorofluoromethane (F-11)	75-69-4	89.8%	557	↗	1.0	0.41	6.1	1.6	1.0
1,3,5-Trimethylbenzene	108-67-8	7.0%	557				3.0	0.65	
1,2,4-Trimethylbenzene	95-63-6	35.2%	557	↘	0.58	0.93	8.4	2.8	0.65
Vinyl Acetate	108-05-4	73.7%	133	↘	2.1	3.0	16	11	2.5
Vinylidene Chloride	75-35-4	0.3%	397				0.62	0.62	
o-Xylene	95-47-6	14.4%	557		0.26	1.0	17	0.65	0.33
m+p-Xylenes	106-42-3	63.4%	557	↘	0.56	2.6	61	3.2	0.75

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.6.5 – Yearly Exposure Point Concentrations for Ogden Dunes Monitor 1999-2008

Pollutant	CAS#	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
Acetone	67-64-1				9.2	14	8.5	7.5	12	9.0	4.8
Acrolein	107-02-8								2.2	1.7	1.2
Benzene	71-43-2	0.81	0.74	1.0	0.88	0.65	0.63	0.61	1.0	0.30	0.62
Benzyl Chloride	100-44-7						0.56	0.80			
Bromomethane	74-83-9						0.57	0.57	0.65		0.30
1,3-Butadiene	106-99-0										0.12
Carbon Disulfide	75-15-0				3.1	0.67				0.17	0.20
Carbon Tetrachloride	56-23-5									0.32	0.34
Chlorobenzene	108-90-7										
Chloroethane	75-00-3				0.81						
Chloroform	67-66-3									0.15	0.16
Chloromethane	74-87-3	0.80	1.1	0.85	2.4	0.99	0.43	0.75	1.1	0.91	0.96
Cyclohexane	100-82-7	0.25	0.22	0.37	0.35			0.63		0.15	0.12
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7									0.44	0.29
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.5	2.7	2.3	8.9	2.5	1.7	2.0	2.6	2.1	2.9
Dichloromethane	75-09-2							0.46	0.44	0.23	0.21
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2										
1,4-Dioxane	123-91-1									0.24	
Ethanol	64-17-5				35	55	22	13	31	35	21
Ethyl Acetate	141-78-6							1.4	0.47	0.38	0.20
Ethylbenzene	100-41-4	0.37	0.30	1.5	0.20	0.14	0.25	0.16	0.18	0.17	
p-Ethyltoluene	622-96-8	0.32	0.27	0.68				0.26	0.27		
Heptane	142-82-5	0.30	0.33	0.55	0.52	0.22	0.24	0.23	0.33	0.27	0.22
Hexane	110-54-3	0.60	0.60	1.4	1.0	0.25	0.37	0.39	0.44	0.32	0.29
Isopropanol	67-63-0				1.2	1.4	1.1	0.69	1.5	1.1	0.52
Methyl Ethyl Ketone (MEK)	78-93-3				1.6	3.2	1.9	3.0	2.5	1.6	1.9
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.34	0.17
Methyl n-Butyl Ketone (MBK)	591-78-6									0.51	0.29
Propene	115-07-1	2.0	1.0	1.9	4.0	1.7	1.2	1.8	1.9	0.60	0.78
Styrene	100-42-5	0.48	0.96	0.39							
Tetrachloroethene (PCE)	127-18-4									0.31	
Tetrahydrofuran (THF)	109-99-9							0.37		0.20	0.29
Toluene	108-88-3	2.7	1.7	2.3	1.1	0.78	0.72	0.65	0.71	0.60	0.61
Trichlorotrifluoroethane	76-13-1	0.52	0.62	0.55	0.60	0.56	0.60	0.57	0.62	0.56	0.56
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6	1.6									
Trichlorofluoromethane (F-11)	75-69-4	0.84	1.2	1.1	1.1	1.1	0.89	1.1	1.2	1.0	1.4
1,3,5-Trimethylbenzene	108-67-8	0.39	0.33	0.62							
1,2,4-Trimethylbenzene	95-63-6	2.0	2.0	1.4					0.46	0.18	0.17
Vinyl Acetate	108-05-4								2.1	3.4	2.6
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	0.48	1.5	1.1						0.16	0.15
m+p-Xylenes	106-42-3	1.0	0.83	3.8	0.40	0.25	0.41	0.35	0.40	0.41	0.43

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
μg/m³ : micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.6.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Ogden Dunes monitor is located (census tract 050401 of Porter County) were compared to the mean of readings recorded at the Ogden Dunes monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.6.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. Of note at the Ogden Dunes monitor are chloroethane and carbon disulfide, both of which were vastly underestimated by NATA. Carbon disulfide is relatively non-toxic and chloroethane was only detected in sufficient quanities to quantify in 2002 and so does not likely pose a chronic health risk.

**Table 2.6.6 – Comparison of 2002 NATA Concentration Estimates to
2002 Ogden Dunes ToxWatch Monitoring Results**

ToxWatch Name	CAS	NATA µg/m³	ToxWatch µg/m³	Diff.
Benzene	71-43-2	1.17	0.7	67%
Carbon Disulfide	75-15-0	0.00478	2.3	-100%
Chloroethane	75-00-3	0.00431	0.76	-99%
Chloromethane	74-87-3	1.2	1.8	-33%
Ethylbenzene	100-41-4	0.337	0.17	98%
Hexane	110-54-3	0.413	0.68	-39%
Toluene	108-88-3	2.82	0.87	224%
m+p-Xylenes[1]	106-42-3	1.78	0.3	493%

1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.6.6   CONCLUSIONS

The Ogden Dunes air toxics monitor consistently showed lower levels of air toxics than any other monitor in the ToxWatch Network. As with the other monitoring locations, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

Ogden Dunes was the only monitor with a risk estimate for benzene below 1-in-1,000,000. In fact, the only pollutant monitored at Ogden Dunes with a cancer risk estimate above 1-in-1,000,000 was carbon tetrachloride. Carbon tetrachloride concentrations at Ogden Dunes were consistent with what is considered the global background concentration. In addition, the concentrations of air toxics measured at this location appear to be decreasing for the most part. 67% of trends calculated at this monitor were decreasing. Only 11% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.7   PIERRE MORAN SCHOOL

2.7.1   INTRODUCTION

The Elkhart – Pierre Moran (Pierre Moran) monitor is located at the Pierre Moran Jr. High School, 200 W. Lusher St., Elkhart, IN, 46517. Air toxics were monitored at this site from 1999 – 2007. The Pierre Moran monitor is located in the northern portion of the state in Elkhart County. Large emitters of air toxics within Elkhart County include the Owens Corning facility, Global Composites Plant #4, and the Better Way Products facility.

Figure 2.7.1 – Map of Pierre Moran School Monitor and Surrounding Area

2.7.2   METEOROLOGY

The South Bend/Elkhart area's climate and meteorology are largely influenced by the proximity of Lake Michigan just 20 to 40 miles to the northwest of the South Bend/Elkhart region. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperatures in the late spring through early fall and its warmer-than-the-nearby-land water temperatures from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. South Bend averages 82 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions and a reduction in the atmospheric mixing of ground level pollutants leading to an increase in
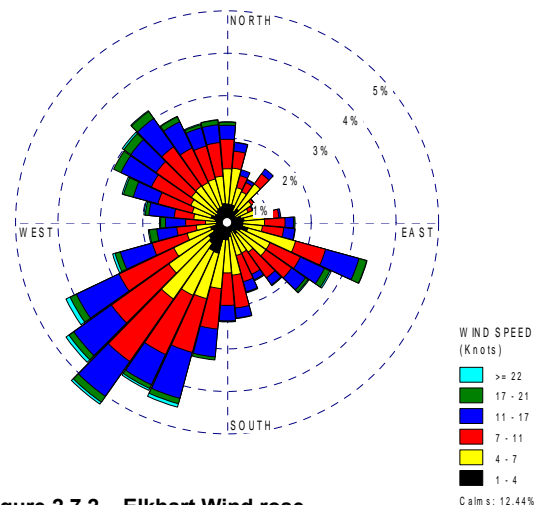
Figure 2.7.2 – Elkhart Wind rose

pollutant concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.7.2) shows the predominant wind direction to be from a southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. Calm winds were reported at the South Bend National Weather Service approximately 12 percent of the time during the year 2007.

2.7.3   RISKS AND HAZARDS

Five out of six carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.7.2. Of these, only benzyl chloride exceeded a risk estimate of 10-in-1,000,000. Air samples collected from the Pierre Moran School monitor displayed a total risk from measured pollutants of approximately 49-in-1,000,000. Over half of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk at the Pierre Moran School monitor falls to approximately 18-in-1,000,000, still somewhat elevated by U.S. EPA standards, but within the range seen across the state. This remaining risk was made up of benzene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, and ethylbenzene. All of these individual pollutants displayed a risk above 1-in-1,000,000, except dichloromethane.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Pierre Moran School monitoring location. Its three-year hazard quotient is 110, tying it with the Washington Park and Whiting High School monitors for the second highest acrolein hazard quotient seen in the study. The second-highest hazard quotient comes from benzyl chloride, with a value of 0.95. As mentioned above, there are some issues with benzyl chloride's data. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.67. While this is below the 1.0 level that may indicate a problem, it is still relatively high so the pollutants have been broken down by critical effect to make it clear that air concentrations of monitored pollutants are still well below levels that should be of non-carcinogenic concern.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.50, for neurological effects. Ninety percent of this hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.7.3 and Graph 2.7.3 for more information on the critical effects analysis at the Pierre Moran School monitor.

Table 2.7.1 - Hazard Quotients for Pierre Moran School Monitor 1999-2007

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	94.6%	316	0.00035
Acrolein	107-02-8	87.7%	65	110
Benzene	71-43-2	90.8%	445	0.037
Benzyl Chloride	100-44-7	11.1%	316	0.95
Bromomethane	74-83-9	14.5%	413	0.10
Carbon Disulfide	75-15-0	15.5%	316	0.00071
Carbon Tetrachloride	56-23-5	10.1%	316	0.0013
Chloromethane	74-87-3	84.7%	445	0.011
Cyclohexane	100-82-7	31.2%	445	0.000043
p-Dichlorobenzene	106-46-7	13.7%	445	0.00044
Dichlorodifluoromethane (F-12)	75-71-8	90.6%	445	0.0020
Dichloromethane	75-09-2	31.5%	445	0.00082
Ethanol	64-17-5	78.8%	316	0.00027
Ethyl Acetate	141-78-6	30.4%	316	0.0014
Ethylbenzene	100-41-4	81.1%	445	0.00052
Heptane	142-82-5	69.0%	445	0.0011
Hexane	110-54-3	76.6%	445	0.0012
Isopropanol	67-63-0	55.7%	316	0.00063
Methyl Ethyl Ketone (MEK)	78-93-3	87.3%	316	0.0004
Methyl Isobutyl Ketone (MIBK)	108-10-1	9.5%	316	0.000093
Methyl n-Butyl Ketone (MBK)	591-78-6	13.3%	316	0.010
Propene	115-07-1	92.8%	445	0.00067
Styrene	100-42-5	63.1%	445	0.0016
Tetrahydrofuran (THF)	109-99-9	7.9%	316	0.0063
Toluene	108-88-3	94.6%	445	0.00068
Trichlorofluoromethane (F-11)	75-69-4	87.2%	445	0.0016
1,3,5-Trimethylbenzene	108-67-8	32.1%	445	0.12
1,2,4-Trimethylbenzene	95-63-6	58.0%	445	0.33
Vinyl Acetate	108-05-4	92.9%	70	0.022
o-Xylene	95-47-6	50.8%	445	0.0067
m+p-Xylenes	106-42-3	91.9%	445	0.016

Table 2.7.2 – Cancer Risk Estimates for Pierre Moran School Monitor 1999-2007

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	90.8%	445	8.6×10^{-06}
Benzyl Chloride	100-44-7	11.1%	316	3.1×10^{-05}
Carbon Tetrachloride	56-23-5	10.1%	316	3.8×10^{-06}
p-Dichlorobenzene	106-46-7	13.7%	445	3.8×10^{-06}
Dichloromethane	75-09-2	31.5%	445	3.9×10^{-07}
Ethylbenzene	100-41-4	81.1%	445	1.3×10^{-06}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read $7.3\text{-times}10^{-06}$ as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.7.1 - Hazard Quotients for Pierre Moran School Monitor 1999-2007

Graph 2.7.2 – Cancer Risk Estimates for Pierre Moran School Monitor 1999-2007
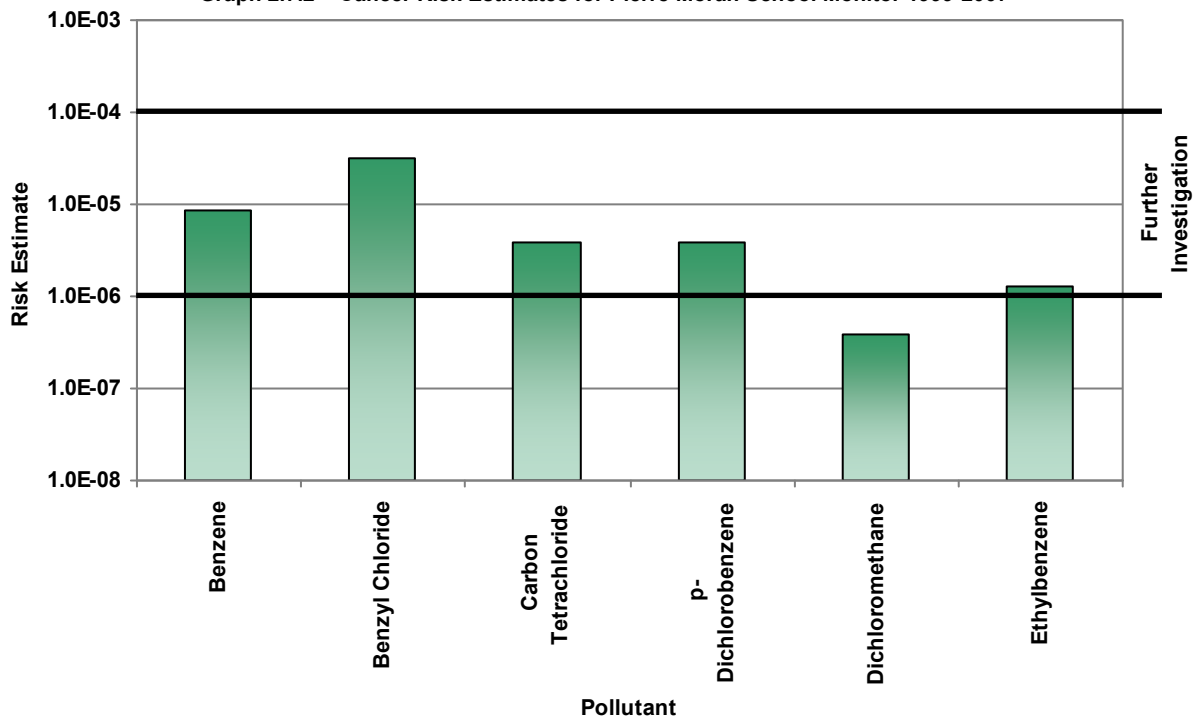
Table 2.7.3 - Critical Effects Analysis for Pierre Moran School Monitor 1999-2007

Respiratory			Neurological		
Pollutant	CAS#	HQ	Pollutant	CAS#	HQ
Bromomethane	74-83-9	0.10	Acetone	67-64-1	0.00035
Dichlorodifluoromethane (F-12)*	75-71-8	0.0020	Carbon Disulfide	75-15-0	0.00071
Ethanol*	64-17-5	0.00027	Chloromethane	74-87-3	0.011
Heptane*	142-82-5	0.0011	Dichlorodifluoromethane (F-12)*	75-71-8	0.002
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010	Ethanol*	64-17-5	0.00027
Propene	115-07-1	0.00067	Heptane*	142-82-5	0.0011
Tetrahydrofuran (THF)	109-99-9	0.0063	Hexane	110-54-3	0.0012
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010
Vinyl Acetate	108-05-4	0.022	Styrene	100-42-5	0.0016
			Toluene	108-88-3	0.00068
			Trichlorofluoromethane (F-11)*	75-69-4	0.0016
			1,3,5-Trimethylbenzene	108-67-8	0.12
			1,2,4-Trimethylbenzene	95-63-6	0.33
			o-Xylene	95-47-6	0.0067
			m+p-Xylenes	106-42-3	0.016
Hazard Index		0.14	**Hazard Index**		0.50
Reproductive			Other		
Pollutant	CAS#	HQ	Pollutant	CAS#	HQ
Cyclohexane	100-82-7	0.000043	Benzene	71-43-2	0.037
p-Dichlorobenzene	106-46-7	0.00044	Carbon Tetrachloride	56-23-5	0.0013
Dichlorodifluoromethane (F-12)*	75-71-8	0.0020	Dichlorodifluoromethane (F-12)*	75-71-8	0.0020
Ethanol*	64-17-5	0.00027	Dichloromethane	75-09-2	0.00082
Ethylbenzene	100-41-4	0.00052	Ethanol*	64-17-5	0.00027
Heptane*	142-82-5	0.0011	Ethyl Acetate	141-78-6	0.0014
Isopropanol	67-63-0	0.00063	Heptane*	142-82-5	0.0011
Methyl Ethyl Ketone (MEK)	78-93-3	0.00040	Isopropanol	67-63-0	0.00063
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.000093	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.010	Tetrahydrofuran (THF)	109-99-9	0.0063
Trichlorofluoromethane (F-11)*	75-69-4	0.0016	Trichlorofluoromethane (F-11)*	75-69-4	0.0016
Hazard Index		0.020	**Hazard Index**		0.060

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.7.3 - Critical Effect Analysis for Pierre Moran School Monitor 1999-2007
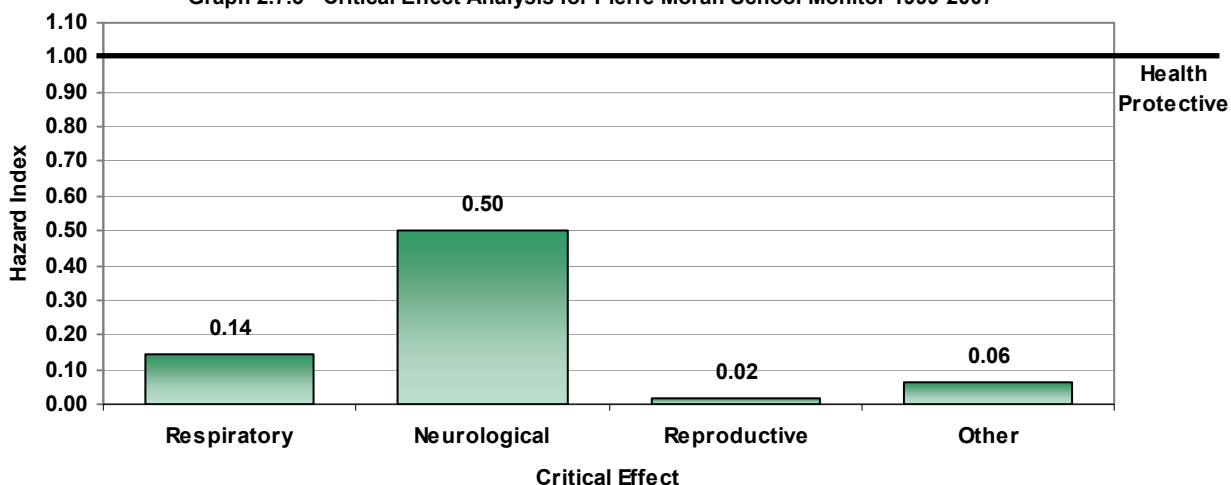
2.7.4   CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to have been trending slightly downward at the Pierre Moran School monitor over the five years of monitoring. Of the twenty-five (25) pollutants at Pierre Moran School which had detection rates sufficient to calculate some form of concentration trend, sixteen (16) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Six (6) showed no discernable trend and three (3) showed an increasing trend. Table 2.7.4 shows pertinent summary data about concentrations and trends at the Pierre Moran School monitor. Graph 2.7.4 displays the daily concentrations of those pollutants with an increasing trend at the Pierre Moran School monitor. Table 2.7.5 shows yearly exposure point concentrations for the Pierre Moran School monitor.

Graph 2.7.4 Pollutants with an Increasing Concentration Trend at Pierre Moran School Monitor 1999-2007

Ethyl Acetate

Trichlorotrifluoroethane

Vinyl Acetate
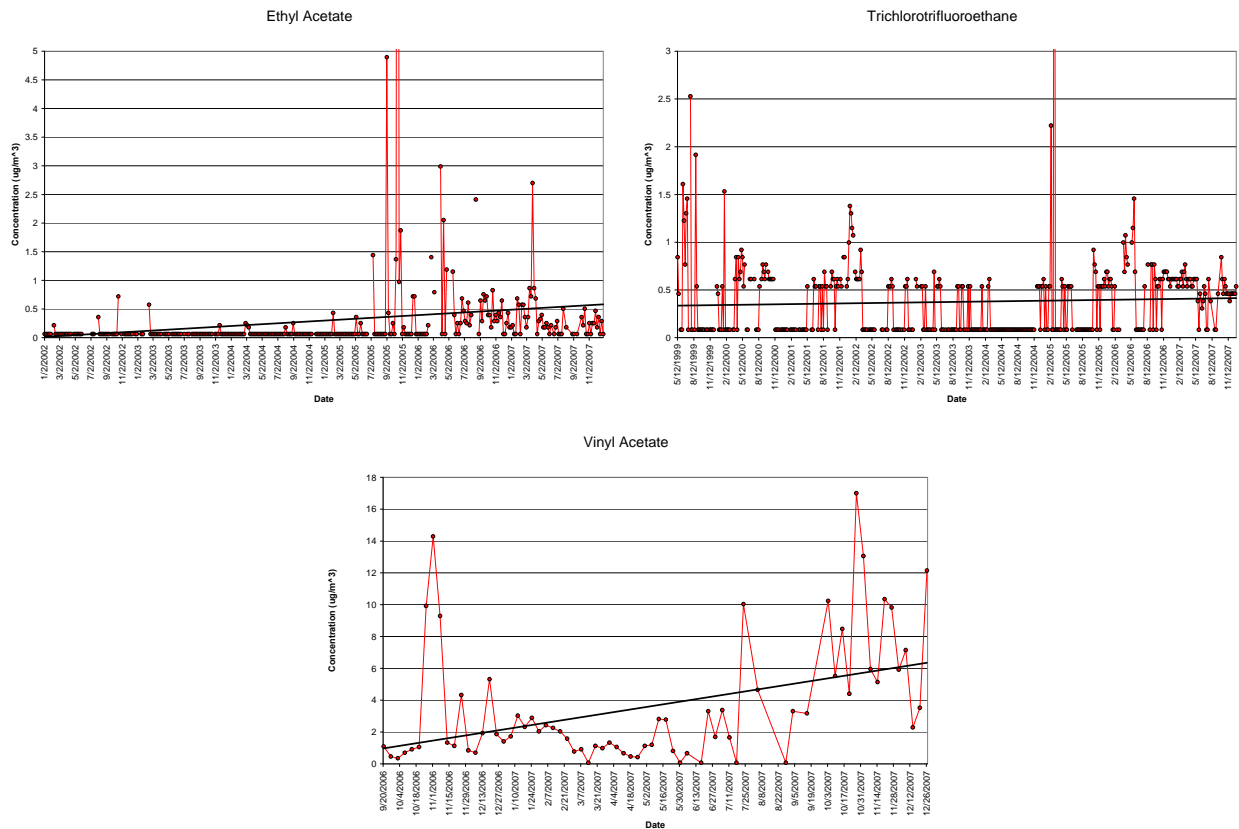
Table 2.7.4 – Concentrations and Trends Summary for Pierre Moran School Monitor 1999-2007

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	94.6%	316	↘	9.9	8.6	77	28	11
Acrolein	107-02-8	87.7%	65	↔	2	1.6	9.2	5	2.3
Benzene	71-43-2	90.8%	445	↘	1.1	0.77	5.3	2.9	1.1
Benzyl Chloride	100-44-7	11.1%	316		0.59	0.47	4.1	3.6	0.63
Bromomethane	74-83-9	14.5%	413		0.48	0.21	2.0	0.88	0.5
1,3-Butadiene	106-99-0	2.5%	316				2.2	0.67	
Carbon Disulfide	75-15-0	15.5%	316		0.42	0.80	5.2	2.8	0.50
Carbon Tetrachloride	56-23-5	10.1%	316		0.24	0.18	1.9	0.82	0.25
Chloromethane	74-87-3	84.7%	445	↘	0.89	1.2	17	1.7	0.99
Cyclohexane	100-82-7	31.2%	445	↘	0.23	0.31	3.6	0.71	0.26
p-Dichlorobenzene	106-46-7	13.7%	445		0.29	0.72	11	1.0	0.35
Dichlorodifluoromethane (F-12)	75-71-8	90.6%	445	↔	2.5	5.9	98	3.8	3.0
Dichloromethane	75-09-2	31.5%	445	↘	0.69	1.6	15	4.3	0.82
1,4-Dioxane	123-91-1	3.0%	266				3.1	3.1	
Ethanol	64-17-5	78.8%	316	↔	24	34	350	100	27
Ethyl Acetate	141-78-6	30.4%	316	↗	0.39	1.5	25	1.3	0.53
Ethylbenzene	100-41-4	81.1%	445	↘	0.48	0.52	6.9	1.7	0.52
p-Ethyltoluene	622-96-8	43.8%	445	↘	0.52	0.97	9.8	3.2	0.60
Heptane	142-82-5	69.0%	445	↘	0.45	0.44	3.1	1.6	0.48
Hexane	110-54-3	76.6%	445	↘	0.77	0.82	7.7	2.5	0.84
Isopropanol	67-63-0	55.7%	316	↔	2.3	22	390	4.3	4.4
Methyl Ethyl Ketone (MEK)	78-93-3	87.3%	316	↔	1.8	1.5	12	5.2	2.0
Methyl Isobutyl Ketone (MIBK)	108-10-1	9.5%	316		0.25	0.23	170	170	0.28
Methyl n-Butyl Ketone (MBK)	591-78-6	13.3%	316		0.41	1.6	22	2.2	0.57
Propene	115-07-1	92.8%	445	↘	1.8	2.2	20	8.0	2.0
Styrene	100-42-5	63.1%	445	↘	1.4	2.4	23	6.8	1.6
Tetrahydrofuran (THF)	109-99-9	7.9%	316		0.20	0.16	1.7	0.59	0.22
Toluene	108-88-3	94.6%	445	↘	3.1	3.5	42	10	3.4
Trichlorotrifluoroethane	76-13-1	47.4%	445	↗	0.52	0.46	8.1	1.1	0.55
1,1,1-Trichloroethane	71-55-6	0.3%	395				2.2	2.2	
Trichloroethene (TCE)	79-01-6	4.0%	445				3.0	1.2	
Trichlorofluoromethane (F-11)	75-69-4	87.2%	445	↔	1.0	0.47	6.2	1.7	1.1
1,3,5-Trimethylbenzene	108-67-8	32.1%	445	↘	0.61	1.1	13	2.9	0.70
1,2,4-Trimethylbenzene	95-63-6	58.0%	445	↘	1.9	4.9	55	14	2.3
Vinyl Acetate	108-05-4	92.9%	70	↗	3.5	3.9	17	13	4.3
Vinylidene Chloride	75-35-4	5.4%	316				5.3	0.81	
o-Xylene	95-47-6	50.8%	445	↘	0.60	0.88	12	2.4	0.67
m+p-Xylenes	106-42-3	91.9%	445	↘	1.4	1.6	17	5.0	1.6

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.7.5 – Yearly Exposure Point Concentrations for Pierre Moran School Monitor 1999-2007

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1				12	15	11	9.6	16	7.7	
Acrolein	107-02-8								2.8	2.3	
Benzene	71-43-2	2.2	1.2	1.7	1.0	1.0	0.86	0.98	1.3	1.3	
Benzyl Chloride	100-44-7						0.64	1.7			
Bromomethane	74-83-9						0.56	0.63	0.71		
1,3-Butadiene	106-99-0										
Carbon Disulfide	75-15-0				1.3				2.0	0.17	
Carbon Tetrachloride	56-23-5									0.33	
Chlorobenzene	108-90-7										
Chloroethane	75-00-3								0.73		
Chloroform	67-66-3										
Chloromethane	74-87-3	0.97	1.1	0.90	2.8	0.98	0.43	0.81	0.97	0.93	
Cyclohexane	100-82-7	0.38	0.35	0.43	0.26			0.61	0.27	0.18	
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7		0.43	0.62					0.39	1.2	
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.3	2.6	2.3	11	2.4	1.7	2.3	2.6	2.4	
Dichloromethane	75-09-2	2.1	3.0	2.2	0.44			0.61	0.50	0.28	
1,2-Dichloropropane	78-87-5	0.95									
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.0									
1,4-Dioxane	123-91-1									0.33	
Ethanol	64-17-5				46	34	15	15	52	34	
Ethyl Acetate	141-78-6						0.25	1.6	0.68	0.45	
Ethylbenzene	100-41-4	0.95	0.84	1.3	0.42	0.42	0.43	0.41	0.42	0.31	
p-Ethyltoluene	622-96-8	2.2	0.72	1.9	0.49	0.35	0.35	0.41	0.44	0.23	
Heptane	142-82-5	1.2	0.67	0.86	0.29	0.24	0.35	0.51	0.64	0.41	
Hexane	110-54-3	1.6	1.3	1.8	0.73	0.69	0.70	0.71	0.79	0.57	
Isopropanol	67-63-0				1.4	23	1.1	0.97	1.8	1.7	
Methyl Ethyl Ketone (MEK)	78-93-3				1.7	2.0	2.2	3.0	2.3	1.5	
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.37	
Methyl n-Butyl Ketone (MBK)	591-78-6							4.0		0.58	
Propene	115-07-1	4.2	1.9	2.6	4.1	2.5	1.2	1.8	2.4	0.74	
Styrene	100-42-5	4.1	2.2	1.9	2.3	1.2	0.94	1.9	2.7	1.5	
Tetrachloroethene (PCE)	127-18-4									0.24	
Tetrahydrofuran (THF)	109-99-9						0.31	0.50		0.24	
Toluene	108-88-3	6.8	7.0	6.3	3.0	3.5	2.3	2.6	2.7	1.8	
Trichlorotrifluoroethane	76-13-1	0.88	0.67	0.59	0.68	0.55	0.57	0.97	0.71	0.55	
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6	1.3								0.20	
Trichlorofluoromethane (F-11)	75-69-4	0.93	1.2	1.2	1.1	1.2	0.85	1.4	1.3	1.1	
1,3,5-Trimethylbenzene	108-67-8	2.7	0.82	2.1	0.39		0.54	0.46	0.37	0.25	
1,2,4-Trimethylbenzene	95-63-6	14	3.6	6.8	1.1		0.50	0.76	0.71	0.45	
Vinyl Acetate	108-05-4								4.8	4.6	
Vinylidene Chloride	75-35-4							0.84			
o-Xylene	95-47-6	1.7	1.6	1.4	0.76	0.66	0.81	0.60	0.66	0.37	
m+p-Xylenes	106-42-3	3.3	2.5	3.4	1.2	1.4	1.5	1.1	1.2	0.98	

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
µg/m³ : micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.7.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Pierre Moran School monitor is located (census tract 002200 of Elkhart County) were compared to the mean of readings recorded at the Pierre Moran School monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates, and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.7.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. Of note at the Pierre Moran School is carbon disulfide, whose monitored concentrations were several orders of magnitude higher than NATA's modeled estimates. Carbon disulfide is a relatively non-toxic compound and monitored concentrations are well below health-protective levels.

Table 2.7.6 – Comparison of 2002 NATA Concentration Estimates to 2002 Pierre Moran ToxWatch Monitoring Results

ToxWatch Name	CAS	NATA µg/m³	ToxWatch µg/m³	Diff.
Benzene	71-43-2	1.42	0.87	63%
Carbon Disulfide	75-15-0	0.000867	1.1	-100%
Chloromethane	74-87-3	1.2	2	-40%
Dichloromethane	75-09-2	0.545	0.41	33%
Ethylbenzene	100-41-4	0.499	0.35	43%
Hexane	110-54-3	0.688	0.58	19%
Styrene	100-42-5	5.42	1.4	287%
Toluene	108-88-3	3.83	2.4	60%
o-Xylene[1]	95-47-6	1.95	0.71	175%
m+p-Xylenes[1]	106-42-3	1.95	0.99	97%

1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.7.6   CONCLUSIONS

The Pierre Moran School air toxics monitor was located in a largely residential area of Elkhart. Only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to have been decreasing for the most part. 64% of trends calculated at this monitor were decreasing. Only 12% were increasing. It should be noted that montoring at this location ended in 2007 so direct comparison between this monitor and other ToxWatch monitors should be done with caution. IDEM is dedicated to further reducing air toxics concentrations here and across the state.

2.8 UNIVERSITY OF EVANSVILLE

2.8.1 INTRODUCTION

The Evansville – U of E (University of Evansville) monitor is located at the Carson Center on the campus of the University of Evansville at 1800 Walnut St., Evansville, IN 47714. It has been monitoring air toxics concentrations from 1999 through present day. The University of Evansville monitor is located in the southwestern portion of the state in Vanderburgh County. Large emitters of air toxics within Vanderburgh County include the Whirlpool Corporation, Silgan Closures, and the Guardian Automotive Trim facility.

Figure 2.8.1 - Map of University of Evansville Monitor and Surrounding Area

2.8.2 METEOROLOGY

Evansville is located in southwestern Indiana on the north side of the Ohio River. The Evansville area's meteorology is somewhat influenced by the proximately of the Ohio River valley. The geography is such that wind speeds are lighter in the Evansville region and air masses can become stagnant in the area. This can create meteorological conditions where higher concentrations of pollutants develop.

Snowfall is more sporadic than in northern and central Indiana with the majority of the winter months having only small amounts of snow on the ground for a few days or no snow cover at all. The annual average snowfall for Evansville is 14.2 inches a year. Temperature inversions developing from warmer air moving over a snow pack are a less frequent occurrence than in northern or central Indiana,
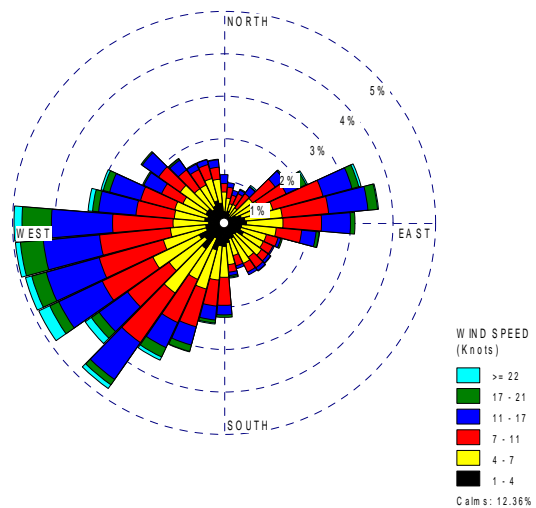
Figure 2.8.2 - Evansville Wind Rose

but the lighter wind speeds and higher frequency of calm winds can still lead to increases in pollution concentrations without the existence of a strong temperature inversion.

The annual wind rose (Figure 2.8.2) shows the predominant wind direction to be from the south southwest direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. Calm winds were reported at the Evansville Regional Airport approximately 26 percent of the time during the year 2007.

2.8.3   RISKS AND HAZARDS

Six out of seven carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.8.2. Of these, only benzyl chloride exceeded a risk estimate of 10-in-1,000,000. Air samples collected from the University of Evansville monitor displayed a total risk from measured pollutants of approximately 57-in-1,000,000. Over half of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk at the University of Evansville monitor falls to approximately 20-in-1,000,000, still somewhat elevated by U.S. EPA standards, but within the range seen across the state. This remaining risk was made up of benzene, 1,3-butadiene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, and ethylbenzene. All of these individual pollutants displayed a risk above 1-in-1,000,000, except dichloromethane.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the University of Evansville monitoring location. Its three-year hazard quotient is 79. The University of Evansville monitoring location's acrolein concentrations the second lowest concentrations seen in the study. The second highest hazard quotient comes from benzyl chloride, with a value of 0.89. As mentioned above, there are some issues with benzyl chloride's data. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.99. This is very near the 1.0 level that may indicate a problem so the pollutants have been broken down by critical effect to make it clear that air concentrations of monitored pollutants are still well below levels that should be of non-carcinogenic concern.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.66, for neurological effects. Nearly all of this hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.8.3 and Graph 2.8.3 for more information on the critical effects analysis at the Hammond CAAP monitor.

Table 2.8.1 - Hazard Quotients for University of Evansville Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	91.5%	355	0.00045
Acrolein	107-02-8	83.9%	118	79
Benzene	71-43-2	92.5%	479	0.040
Benzyl Chloride	100-44-7	8.7%	355	0.89
Bromomethane	74-83-9	15.6%	455	0.20
1,3-Butadiene	106-99-0	9.9%	355	0.065
Carbon Disulfide	75-15-0	11.0%	355	0.00031
Carbon Tetrachloride	56-23-5	10.6%	359	0.0015
Chloromethane	74-87-3	81.4%	479	0.011
Cyclohexane	100-82-7	29.4%	479	0.000037
p-Dichlorobenzene	106-46-7	8.4%	479	0.00032
Dichlorodifluoromethane (F-12)	75-71-8	86.6%	479	0.0019
Dichloromethane	75-09-2	27.6%	479	0.00030
Ethanol	64-17-5	73.5%	355	0.00038
Ethyl Acetate	141-78-6	28.7%	355	0.00086
Ethylbenzene	100-41-4	66.8%	479	0.00045
Heptane	142-82-5	65.8%	479	0.0011
Hexane	110-54-3	79.5%	479	0.0012
Isopropanol	67-63-0	58.9%	355	0.00014
Methyl Ethyl Ketone (MEK)	78-93-3	87.6%	355	0.00054
Methyl Isobutyl Ketone (MIBK)	108-10-1	17.5%	355	0.00011
Methyl n-Butyl Ketone (MBK)	591-78-6	25.4%	355	0.0088
Propene	115-07-1	88.5%	479	0.00060
Styrene	100-42-5	20.9%	479	0.00048
Tetrahydrofuran (THF)	109-99-9	11.0%	355	0.0054
Toluene	108-88-3	94.6%	479	0.00064
Trichlorofluoromethane (F-11)	75-69-4	87.7%	479	0.0019
1,3,5-Trimethylbenzene	108-67-8	26.3%	479	0.15
1,2,4-Trimethylbenzene	95-63-6	52.0%	479	0.46
Vinyl Acetate	108-05-4	82.6%	121	0.018
o-Xylene	95-47-6	44.3%	479	0.0076
m+p-Xylenes	106-42-3	82.9%	479	0.013

Table 2.8.2 – Cancer Risk Estimates for University of Evansville Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	92.5%	479	9.4×10^{-06}
Benzyl Chloride	100-44-7	8.7%	355	2.9×10^{-05}
1,3-Butadiene	106-99-0	9.9%	355	3.9×10^{-06}
Carbon Tetrachloride	56-23-5	10.6%	359	4.4×10^{-06}
p-Dichlorobenzene	106-46-7	8.4%	479	2.9×10^{-06}
Dichloromethane	75-09-2	27.6%	479	1.4×10^{-07}
Ethylbenzene	100-41-4	66.8%	479	1.1×10^{-06}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read 7.3-times10^{-06} as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.8.1 - Hazard Quotients for University of Evansville Monitor 1999-2008

Graph 2.8.2 – Cancer Risk Estimates for University of Evansville Monitor 1999-2008
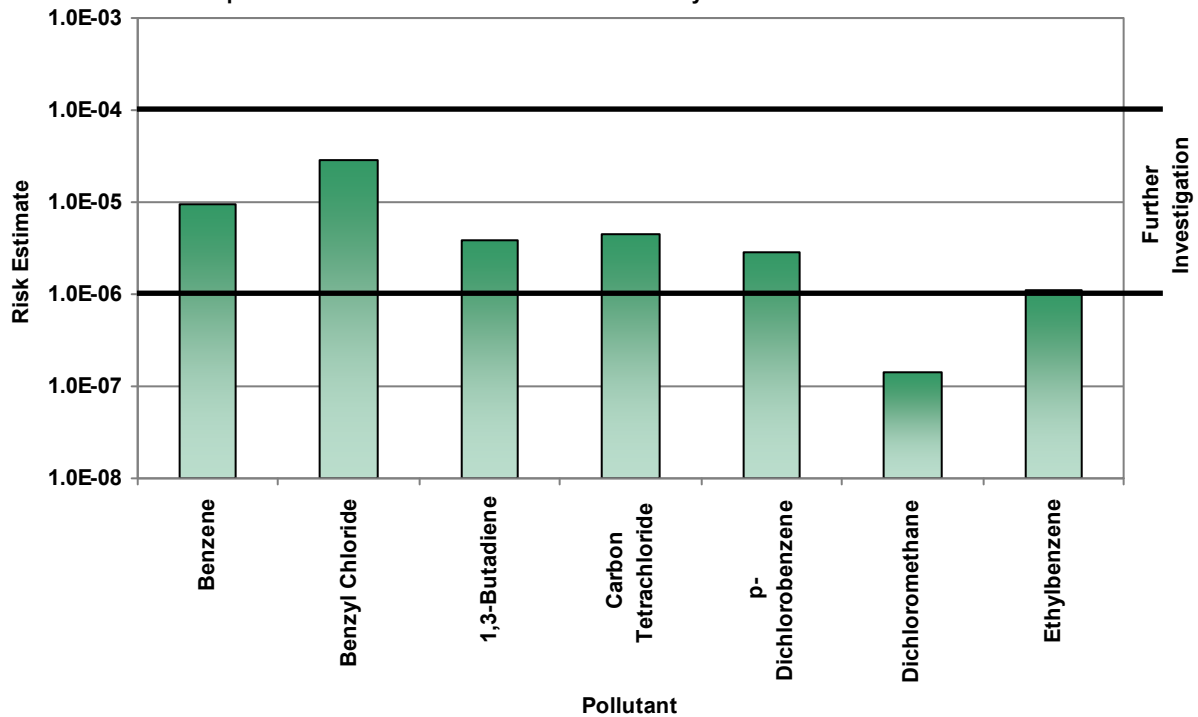
Table 2.8.3 - Critical Effects Analysis for University of Evansville Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.20	Acetone	67-64-1	0.00045
Dichlorodifluoromethane (F-12)	75-71-8	0.0019	Carbon Disulfide	75-15-0	0.00031
Ethanol*	64-17-5	0.00038	Chloromethane	74-87-3	0.011
Heptane*	142-82-5	0.0011	Dichlorodifluoromethane (F-12)	75-71-8	0.0019
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0088	Ethanol*	64-17-5	0.00038
Propene	115-07-1	0.00060	Heptane*	142-82-5	0.0011
Tetrahydrofuran (THF)	109-99-9	0.0054	Hexane	110-54-3	0.0012
Trichlorofluoromethane (F-11)*	75-69-4	0.0019	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0088
Vinyl Acetate	108-05-4	0.018	Styrene	100-42-5	0.00048
			Toluene	108-88-3	0.00064
			Trichlorofluoromethane (F-11)*	75-69-4	0.0019
			1,3,5-Trimethylbenzene	108-67-8	0.15
			1,2,4-Trimethylbenzene	95-63-6	0.46
			o-Xylene	95-47-6	0.0076
			m+p-Xylenes	106-42-3	0.013
Hazard Index		0.24	**Hazard Index**		0.66
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
1,3-Butadiene	106-99-0	0.065	Benzene	71-43-2	0.040
Cyclohexane	100-82-7	0.000037	Carbon Tetrachloride	56-23-5	0.0015
p-Dichlorobenzene	106-46-7	0.00032	Dichlorodifluoromethane (F-12)	75-71-8	0.0019
Dichlorodifluoromethane (F-12)	75-71-8	0.0019	Dichloromethane	75-09-2	0.00030
Ethanol*	64-17-5	0.00038	Ethanol*	64-17-5	0.00038
Ethylbenzene	100-41-4	0.00045	Ethyl Acetate	141-78-6	0.00086
Heptane*	142-82-5	0.0011	Heptane*	142-82-5	0.0011
Isopropanol	67-63-0	0.00014	Isopropanol	67-63-0	0.00014
Methyl Ethyl Ketone (MEK)	78-93-3	0.00054	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0088
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00011	Tetrahydrofuran (THF)	109-99-9	0.0054
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.0088	Trichlorofluoromethane (F-11)*	75-69-4	0.0019
Trichlorofluoromethane (F-11)*	75-69-4	0.0019			
Hazard Index		0.080	**Hazard Index**		0.060

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.8.3 - Critical Effect Analysis for University of Evansville Monitor 1999-2008
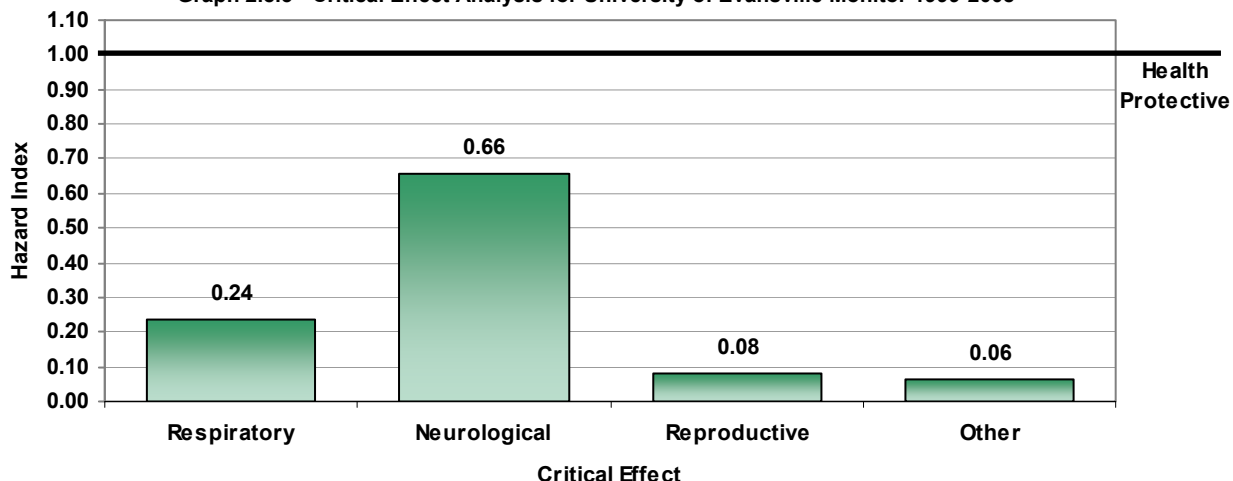
2.8.4 CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be trending downwards at the University of Evansville monitor over the last decade. Of the twenty-five (25) pollutants at University of Evansville which had detection rates sufficient to calculate some form of concentration trend, thirteen (13) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Seven (7) showed no discernable trend and five (5) showed an increasing trend. Table 2.8.4 shows pertinent summary data about concentrations and trends at the University of Evansville monitor. Graph 2.8.4 displays the daily concentrations of those pollutants with an increasing trend at the University of Evansville monitor. Table 2.8.5 shows yearly exposure point concentrations for the University of Evansville monitor.

Graph 2.8.4 Pollutants with an Increasing Concentration Trend at University of Evansville Monitor 1999-2008
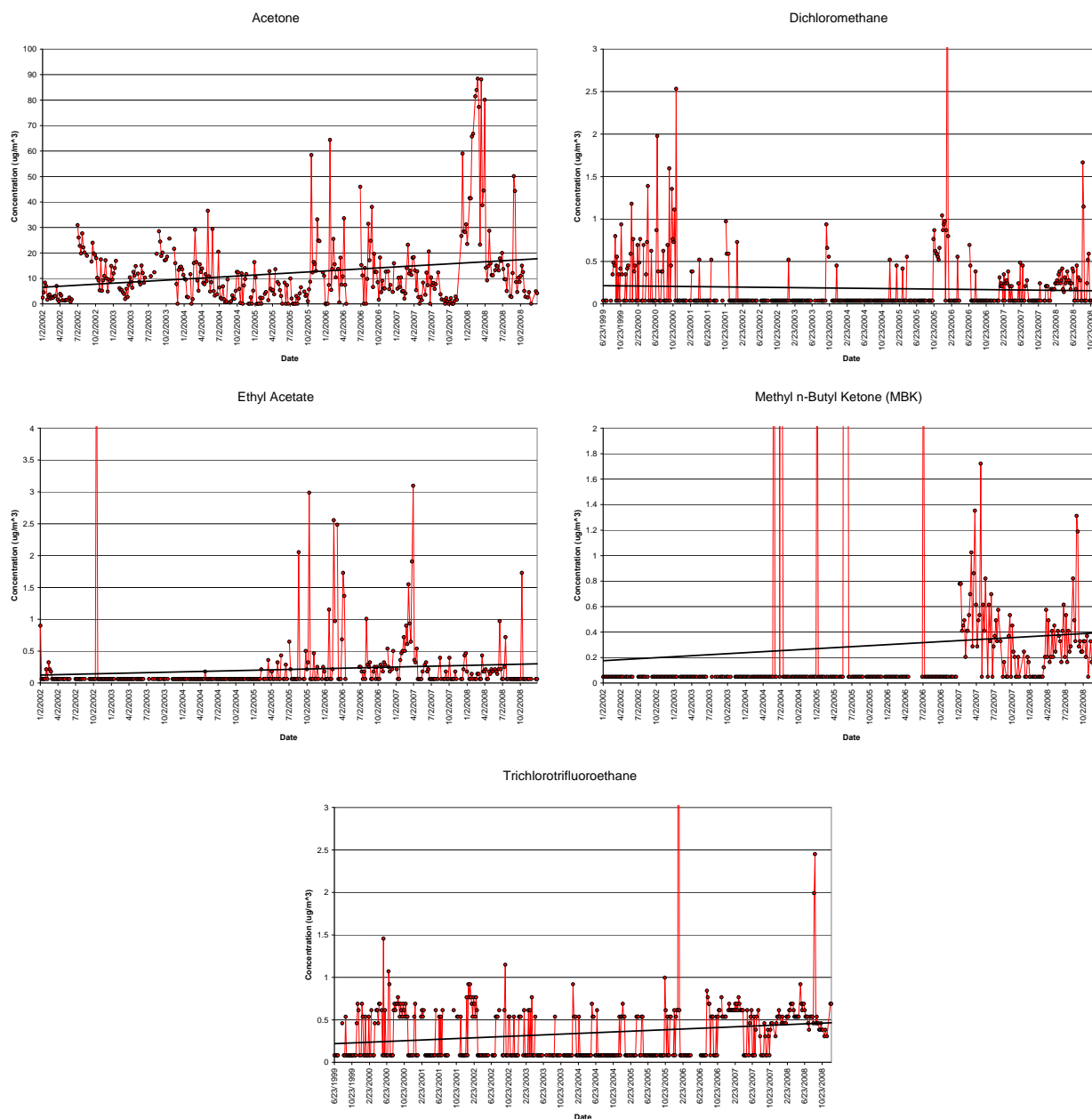
Table 2.8.4 – Concentrations and Trends Summary for University of Evansville Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	91.5%	355	↗	12	14	88	53	14
Acrolein	107-02-8	83.9%	118	↔	1.3	1.5	11	3.7	1.6
Benzene	71-43-2	92.5%	479	↘	1.0	1.4	22	3.5	1.2
Benzyl Chloride	100-44-7	8.7%	355		0.55	0.41	3.9	3.6	0.59
Bromomethane	74-83-9	15.6%	455		0.55	5.3	110	0.79	0.98
1,3-Butadiene	106-99-0	9.9%	355		0.11	0.14	2.0	0.67	0.13
Carbon Disulfide	75-15-0	11.0%	355		0.20	0.27	4.4	0.47	0.22
Carbon Tetrachloride	56-23-5	10.6%	359		0.26	0.43	7.3	0.82	0.29
Chloromethane	74-87-3	81.4%	479	↘	0.92	1.5	24	2.5	1.0
Cyclohexane	100-82-7	29.4%	479	↔	0.20	0.30	4.2	0.78	0.22
p-Dichlorobenzene	106-46-7	8.4%	479		0.23	0.45	9.4	1.0	0.26
Dichlorodifluoromethane (F-12)	75-71-8	86.6%	479	↔	2.4	4.4	76	4.4	2.8
Dichloromethane	75-09-2	27.6%	479	↗	0.27	0.35	5.0	0.94	0.30
1,4-Dioxane	123-91-1	2.6%	310				3.1	3.1	
Ethanol	64-17-5	73.5%	355	↔	32	70	690	130	38
Ethyl Acetate	141-78-6	28.7%	355	↗	0.28	0.49	6.3	1.2	0.32
Ethylbenzene	100-41-4	66.8%	479	↘	0.40	0.61	7.4	1.5	0.45
p-Ethyltoluene	622-96-8	36.5%	479	↘	0.56	1.7	32	3.1	0.69
Heptane	142-82-5	65.8%	479	↘	0.41	0.60	9.1	1.5	0.46
Hexane	110-54-3	79.5%	479	↘	0.72	1.1	13	2.4	0.81
Isopropanol	67-63-0	58.9%	355	↔	0.84	1.2	9.0	4.0	0.95
Methyl Ethyl Ketone (MEK)	78-93-3	87.6%	355	↔	2.5	2.7	23	9.3	2.7
Methyl Isobutyl Ketone (MIBK)	108-10-1	17.5%	355		0.24	0.83	170	170	0.32
Methyl n-Butyl Ketone (MBK)	591-78-6	25.4%	355	↗	0.4	1.0	11	2.2	0.5
Propene	115-07-1	88.5%	479	↘	1.6	2.7	36	6.5	1.8
Styrene	100-42-5	20.9%	479		0.38	1.3	20	1.9	0.48
Tetrahydrofuran (THF)	109-99-9	11.0%	355		0.18	0.11	0.94	0.59	0.19
Toluene	108-88-3	94.6%	479	↘	2.8	5.6	93	15	3.2
Trichlorotrifluoroethane	76-13-1	45.7%	479	↗	0.48	0.56	11	0.84	0.53
1,1,1-Trichloroethane	71-55-6	0.5%	434				2.2	2.2	
Trichloroethene (TCE)	79-01-6	7.1%	479				3.8	1.2	
Trichlorofluoromethane (F-11)	75-69-4	87.7%	479	↔	1.2	1.2	19	2	1.3
1,3,5-Trimethylbenzene	108-67-8	26.3%	479	↘	0.69	2.6	50	2.9	0.90
1,2,4-Trimethylbenzene	95-63-6	52.0%	479	↘	2.4	10	180	14	3.2
Vinyl Acetate	108-05-4	82.6%	121	↘	2.9	3.9	23	15	3.5
Vinylidene Chloride	75-35-4	0.3%	359				4.0	0.62	
o-Xylene	95-47-6	44.3%	479	↘	0.61	1.9	32	2.8	0.76
m+p-Xylenes	106-42-3	82.9%	479	↘	1.2	1.5	12	4.9	1.3

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.8.5 – Yearly Exposure Point Concentrations for University of Evansville Monitor 1999-2008

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1				12	14	9.8	10	17	12	32
Acrolein	107-02-8								2.4	2.0	1.4
Benzene	71-43-2	1.6	1.5	2.3	0.98	0.97	0.83	1.0	2.3	0.84	1.3
Benzyl Chloride	100-44-7						0.76	1.7			
Bromomethane	74-83-9						0.56	0.60	7.5		0.37
1,3-Butadiene	106-99-0									0.21	0.16
Carbon Disulfide	75-15-0									0.19	0.37
Carbon Tetrachloride	56-23-5									0.32	0.35
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3									0.15	0.22
Chloromethane	74-87-3	0.72	1.2	1.1	2.4	0.95	0.36	0.76	2.3	0.83	1.1
Cyclohexane	100-82-7	0.40	0.37	0.47	0.31			0.42	0.51	0.19	0.23
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7	0.55		0.53						0.22	
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.2	2.8	2.6	6.8	2.5	1.3	2.0	5.6	2.0	3.5
Dichloromethane	75-09-2	0.46	0.70	0.44		0.49		0.52	0.72	0.25	0.36
1,2-Dichloropropane	78-87-5	1.2									
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.9									
1,4-Dioxane	123-91-1									0.22	
Ethanol	64-17-5				44	100	14	15	37	18	89
Ethyl Acetate	141-78-6				0.55			0.47	0.61	0.53	0.29
Ethylbenzene	100-41-4	0.72	1.1	1.0	0.26	0.29	0.40	0.35	0.53	0.40	0.46
p-Ethyltoluene	622-96-8	3.3	2.3	1.2			0.37	0.43	0.40	0.23	0.33
Heptane	142-82-5	0.82	0.97	0.81	0.27	0.22	0.32	0.36	0.93	0.40	0.46
Hexane	110-54-3	1.2	1.6	1.8	0.60	0.34	0.51	0.73	1.4	0.61	0.90
Isopropanol	67-63-0				1.5	1.1	1.1	1.0	2.0	0.76	1.1
Methyl Ethyl Ketone (MEK)	78-93-3				2.9	2.5	2.8	4.7	4.2	1.9	2.7
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.34	0.19
Methyl n-Butyl Ketone (MBK)	591-78-6							3.4		0.51	0.38
Propene	115-07-1	2.3	1.8	2.4	4.6	2.0	0.96	1.8	3.9	0.79	1.1
Styrene	100-42-5	1.8	2.2	0.50							0.15
Tetrachloroethene (PCE)	127-18-4									0.21	0.31
Tetrahydrofuran (THF)	109-99-9							0.46		0.18	0.31
Toluene	108-88-3	14	7.2	5.6	1.6	2.3	1.6	2.1	3.9	1.6	2.7
Trichlorotrifluoroethane	76-13-1	0.49	0.62	0.56	0.63	0.56	0.61	0.57	1.3	0.52	0.69
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6	1.1								0.42	0.32
Trichlorofluoromethane (F-11)	75-69-4	1.1	1.5	1.2	1.7	1.3	1.0	1.2	2.2	0.98	2.0
1,3,5-Trimethylbenzene	108-67-8	4.6	3.3	1.1			0.55	0.40	0.44	0.27	0.30
1,2,4-Trimethylbenzene	95-63-6	20	15	3.4			0.52	0.72	1.1	0.53	0.66
Vinyl Acetate	108-05-4								5.5	5.0	2.2
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	1.6	3.3	1.2	0.51	0.55	0.60	0.72	0.77	0.46	0.51
m+p-Xylenes	106-42-3	2.1	2.7	2.9	0.71	0.86	1.1	1.0	1.1	1.2	1.3

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
µg/m³ : micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.8.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the University of Evansville monitor is located (census tract 000300 of Vanderburgh County) were compared to the mean of readings recorded at the University of Evansville monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates, and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.8.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. The only pollutant with more than a 3-times difference was m+p-xylenes, but as explained in the footnote below, this is not a good comparison because ToxWatch breaks up the isomers of xylene where NATA does not.

**Table 2.8.6 – Comparison of 2002 NATA Concentration Estimates to
2002 University of Evansville ToxWatch Monitoring Results**

ToxWatch Name	CAS	NATA µg/m^3	ToxWatch µg/m^3	Diff.
Benzene	71-43-2	1.93	0.83	133%
Chloromethane	74-87-3	1.21	1.7	-29%
Ethylbenzene	100-41-4	0.564	0.22	156%
Hexane	110-54-3	0.583	0.49	19%
Toluene	108-88-3	4.03	1.3	210%
o-Xylene[1]	95-47-6	2.43	0.49	396%
m+p-Xylenes[1]	106-42-3	2.43	0.57	326%

1: Little weight should be given to the xylene comparisons because ToxWatch differentiates between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.8.6   CONCLUSIONS

The University of Evansville air toxics monitor is located on the campus of the University of Evansville in Evansville, Indiana. As with other monitors, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to be decreasing for the most part. 52% of trends calculated at this monitor were decreasing. Only 20% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.9   WASHINGTON PARK

2.9.1   INTRODUCTION

The Indianapolis – Washington Park (Washington Park) monitor is located in Washington Park, 3120 E. 30th St., Indianapolis, IN 46218. It has been monitoring air toxics concentrations from 1999 through present day. The Washington Park monitor is located in the center portion of the state in Marion County. Large emitters of air toxics within Marion County include the IPL Harding Street Electric Generating Station, the Citizens Gas & Coke Utility plant, and the Engineered Polymer Solutions facility.
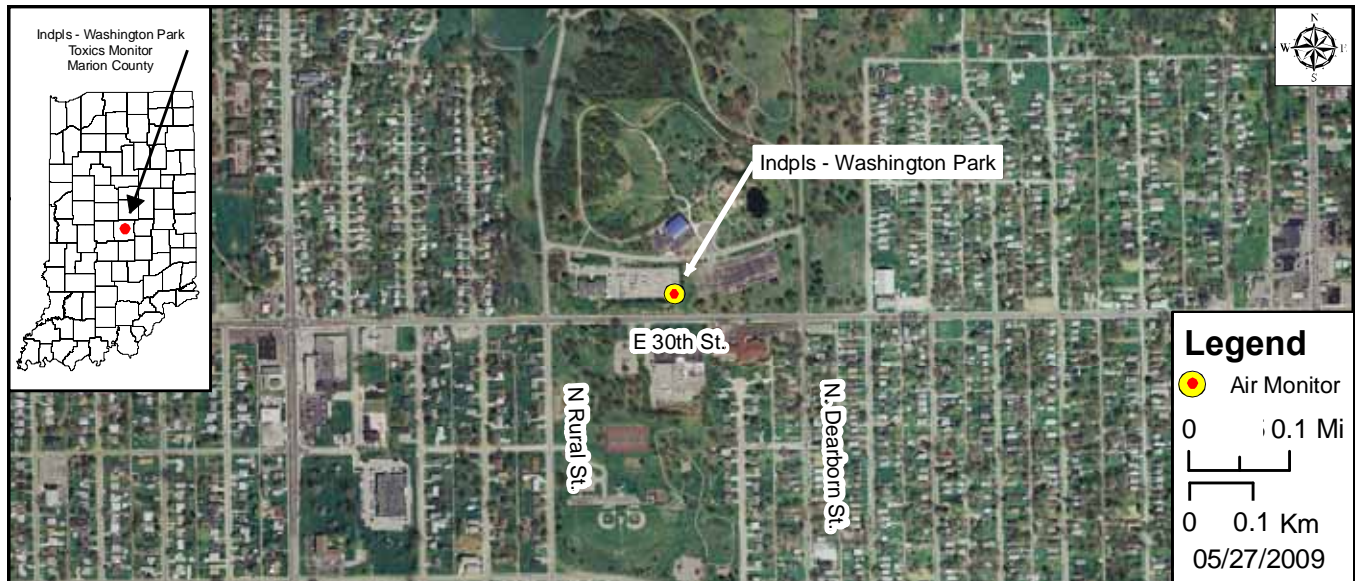
Figure 2.9.1 – Map of Washington Park Monitor and Surrounding Area

2.9.2   METEOROLOGY

Indianapolis is located in central Indiana. The Indianapolis area's climate and meteorology is generally not influenced by any specific geography or topography. The geography is such that wind speeds are generally stronger than those in the Evansville region and air masses are less likely to become stagnant than in southern Indiana.

Snowfall is less frequent than in northern Indiana with the majority of the winter months having only a few inches of snow on the ground for several days or no snow cover at all. The annual average snowfall for Indianapolis is 27 inches a year. Temperature inversions developing from warmer air moving over a snow pack are less frequent than in northern Indiana but
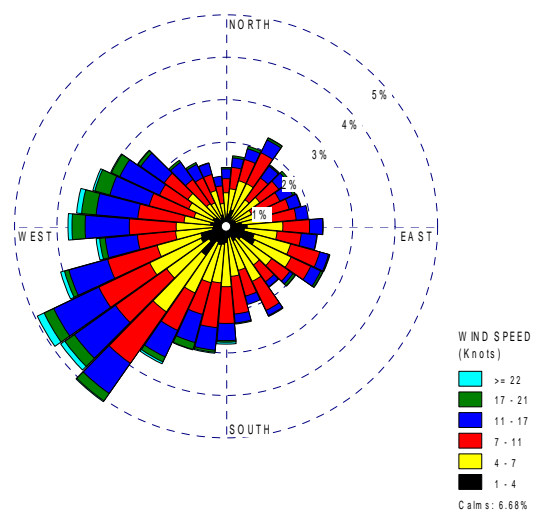
Figure 2.9.2 – Indianapolis Wind rose

can still occur, especially following a significant snow event.

The annual wind rose (Figure 2.9.2) shows the predominant wind direction to be from a southwest direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. Calm winds were reported at the Indianapolis National Weather Service approximately 7 percent of the time during the year 2007.

2.9.3   RISKS AND HAZARDS

Six out of seven carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.9.2. Of these, benzene and benzyl chloride exceeded a risk estimate of 10-in-1,000,000. Air samples collected from the Washington Park monitor displayed a total risk from measured pollutants of approximately 59-in-1,000,000. Over half of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk at the Washington Park monitor falls to approximately 25-in-1,000,000, still somewhat elevated by U.S. EPA standards, but within the range seen across the state. This remaining risk was made up of benzene, 1,3-butadiene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, and ethylbenzene. All of these individual pollutants displayed a risk above 1-in-1,000,000, except dichloromethane.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Washington Park monitoring location. Its three-year hazard quotient is 110, tying it with Pierre Moran School and Whiting High School for the second highest hazard quotient seen in the study. The second highest hazard quotient at Washington Park comes from benzyl chloride, with a value of 1.0. As mentioned above, there are some issues with benzyl chloride's data. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.54. This is relatively high so the pollutants have been broken down by critical effect to make it clear that air concentrations of monitored pollutants are still well below levels that should be of non-carcinogenic concern.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.32, for neurological effects. Nearly all of this hazard is posed by 1,2,4- and 1,3,5-trimethylbenzene. The trimethylbenzenes make up a large portion of the neurological hazard at most ToxWatch monitoring locations across the state. See Table 2.9.3 and Graph 2.9.3 for more information on the critical effects analysis at the Washington Park monitor.

Table 2.9.1 - Hazard Quotients for Washington Park Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	87.8%	377	0.0003
Acrolein	107-02-8	90.9%	121	110
Benzene	71-43-2	94.5%	532	0.053
Benzyl Chloride	100-44-7	12.2%	377	1.0
Bromomethane	74-83-9	16.1%	490	0.056
1,3-Butadiene	106-99-0	13.0%	377	0.075
Carbon Disulfide	75-15-0	14.3%	377	0.00047
Carbon Tetrachloride	56-23-5	10.1%	387	0.0013
Chloromethane	74-87-3	85.0%	532	0.011
Cyclohexane	100-82-7	37.8%	532	0.000043
p-Dichlorobenzene	106-46-7	14.7%	532	0.00031
Dichlorodifluoromethane (F-12)	75-71-8	90.2%	532	0.0019
Dichloromethane	75-09-2	39.8%	532	0.00046
Ethanol	64-17-5	78.8%	377	0.00031
Ethyl Acetate	141-78-6	41.9%	377	0.00097
Ethylbenzene	100-41-4	83.3%	532	0.0006
Heptane	142-82-5	75.2%	532	0.0013
Hexane	110-54-3	83.5%	532	0.0014
Isopropanol	67-63-0	62.9%	377	0.00016
Methyl Ethyl Ketone (MEK)	78-93-3	87.8%	377	0.00042
Methyl Isobutyl Ketone (MIBK)	108-10-1	16.7%	377	0.00014
Methyl n-Butyl Ketone (MBK)	591-78-6	24.9%	377	0.012
Propene	115-07-1	93.6%	532	0.00070
Styrene	100-42-5	24.4%	532	0.00042
Tetrahydrofuran (THF)	109-99-9	10.6%	377	0.0066
Toluene	108-88-3	96.6%	532	0.0014
Trichlorofluoromethane (F-11)	75-69-4	85.9%	532	0.0014
1,3,5-Trimethylbenzene	108-67-8	29.3%	532	0.075
1,2,4-Trimethylbenzene	95-63-6	58.8%	532	0.19
Vinyl Acetate	108-05-4	76.4%	123	0.023
o-Xylene	95-47-6	58.3%	532	0.0086
m+p-Xylenes	106-42-3	92.9%	532	0.019

Table 2.9.2 – Cancer Risk Estimates for Washington Park Monitor 1999-2008

| Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	94.5%	532	1.2×10^{-05}
Benzyl Chloride	100-44-7	12.2%	377	3.4×10^{-05}
1,3-Butadiene	106-99-0	13.0%	377	4.5×10^{-06}
Carbon Tetrachloride	56-23-5	10.1%	387	3.8×10^{-06}
p-Dichlorobenzene	106-46-7	14.7%	532	2.8×10^{-06}
Dichloromethane	75-09-2	39.8%	532	2.2×10^{-07}
Ethylbenzene	100-41-4	83.3%	532	1.5×10^{-06}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read 7.3-times10^{-06} as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.9.1 - Hazard Quotients for Washington Park Monitor 1999-2008
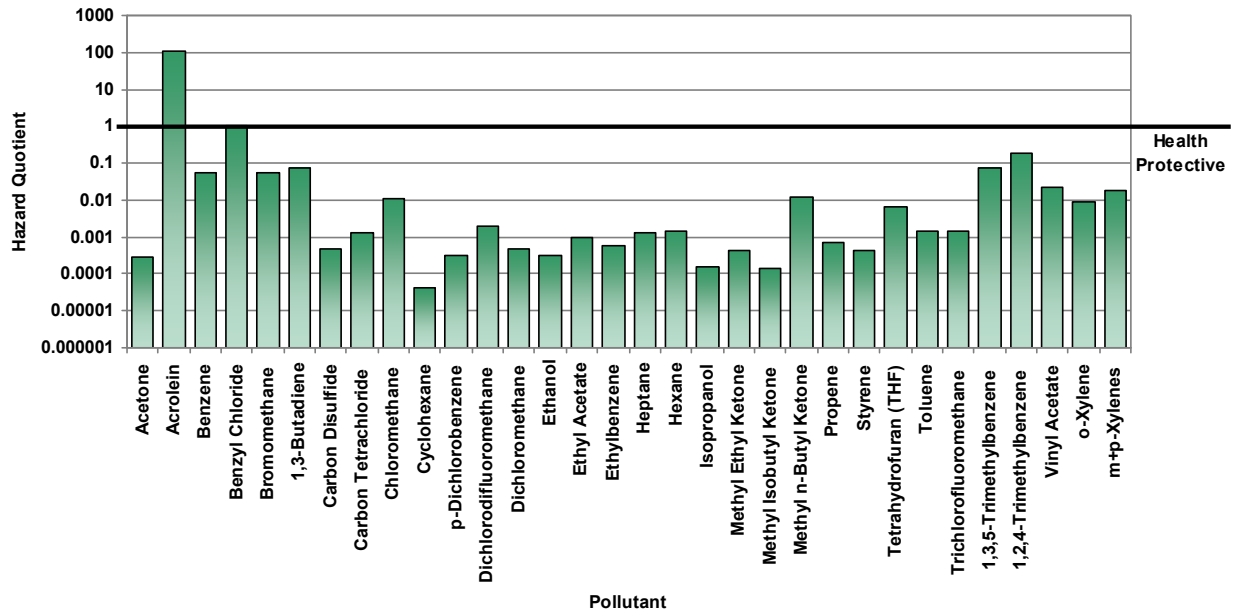
Graph 2.9.2 – Cancer Risk Estimates for Washington Park Monitor 1999-2008
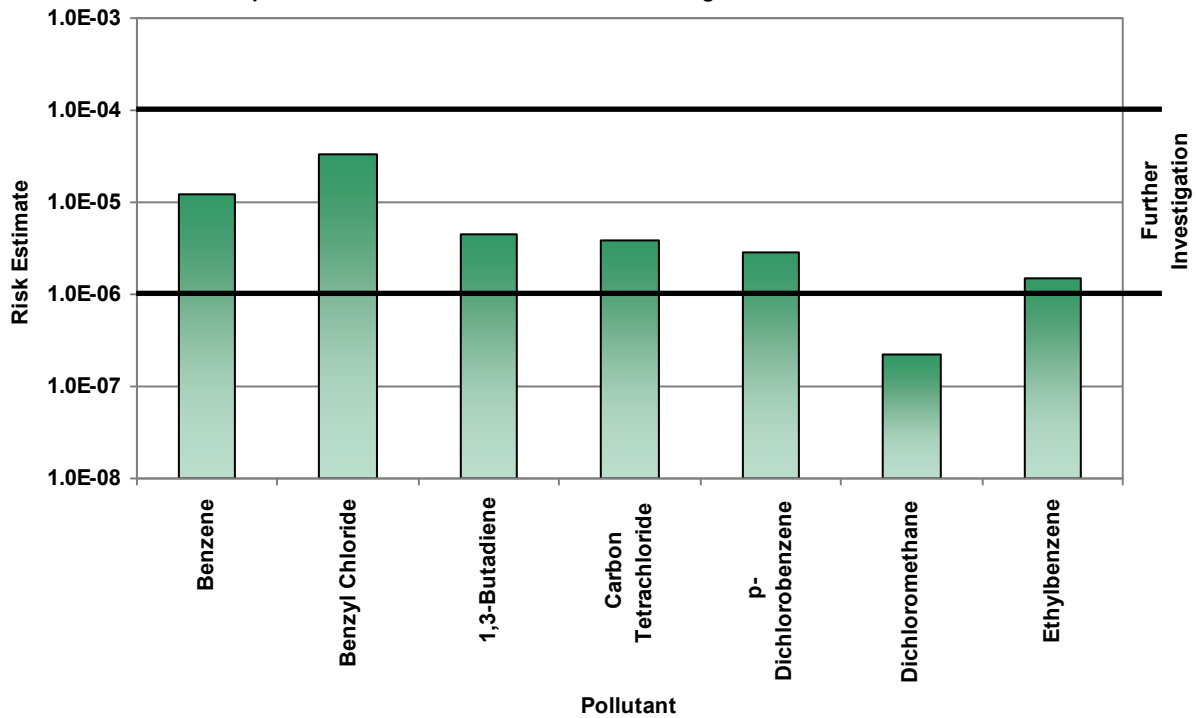
Table 2.9.3 - Critical Effects Analysis for Washington Park Monitor 1999-2008

Respiratory			Neurological		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
Bromomethane	74-83-9	0.056	Acetone	67-64-1	0.00030
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Carbon Disulfide	75-15-0	0.00047
Ethanol*	64-17-5	0.00031	Chloromethane	74-87-3	0.011
Heptane*	142-82-5	0.0013	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.012	Ethanol*	64-17-5	0.00031
Propene	115-07-1	0.00070	Heptane*	142-82-5	0.0013
Tetrahydrofuran (THF)	109-99-9	0.0066	Hexane	110-54-3	0.0014
Trichlorofluoromethane (F-11)*	75-69-4	0.0014	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.012
Vinyl Acetate	108-05-4	0.023	Styrene	100-42-5	0.00042
			Toluene	108-88-3	0.0014
			Trichlorofluoromethane (F-11)*	75-69-4	0.0014
			1,3,5-Trimethylbenzene	108-67-8	0.075
			1,2,4-Trimethylbenzene	95-63-6	0.19
			o-Xylene	95-47-6	0.0086
			m+p-Xylenes	106-42-3	0.019
Hazard Index		0.10	**Hazard Index**		0.32
Reproductive			Other		
Pollutant	**CAS#**	**HQ**	**Pollutant**	**CAS#**	**HQ**
1,3-Butadiene	106-99-0	0.075	Benzene	71-43-2	0.053
Cyclohexane	100-82-7	0.000043	Carbon Tetrachloride	56-23-5	0.0013
p-Dichlorobenzene	106-46-7	0.00031	Dichlorodifluoromethane (F-12)*	75-71-8	0.0019
Dichlorodifluoromethane (F-12)*	75-71-8	0.0019	Dichloromethane	75-09-2	0.00046
Ethanol*	64-17-5	0.00031	Ethanol*	64-17-5	0.00031
Ethylbenzene	100-41-4	0.00060	Ethyl Acetate	141-78-6	0.00097
Heptane*	142-82-5	0.0013	Heptane*	142-82-5	0.0013
Isopropanol	67-63-0	0.00016	Isopropanol	67-63-0	0.00016
Methyl Ethyl Ketone (MEK)	78-93-3	0.00042	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.012
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00014	Tetrahydrofuran (THF)	109-99-9	0.0066
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.012	Trichlorofluoromethane (F-11)*	75-69-4	0.0014
Trichlorofluoromethane (F-11)*	75-69-4	0.0014			
Hazard Index		0.090	**Hazard Index**		0.080

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.9.3 - Critical Effect Analysis for Washington Park Monitor 1999-2008
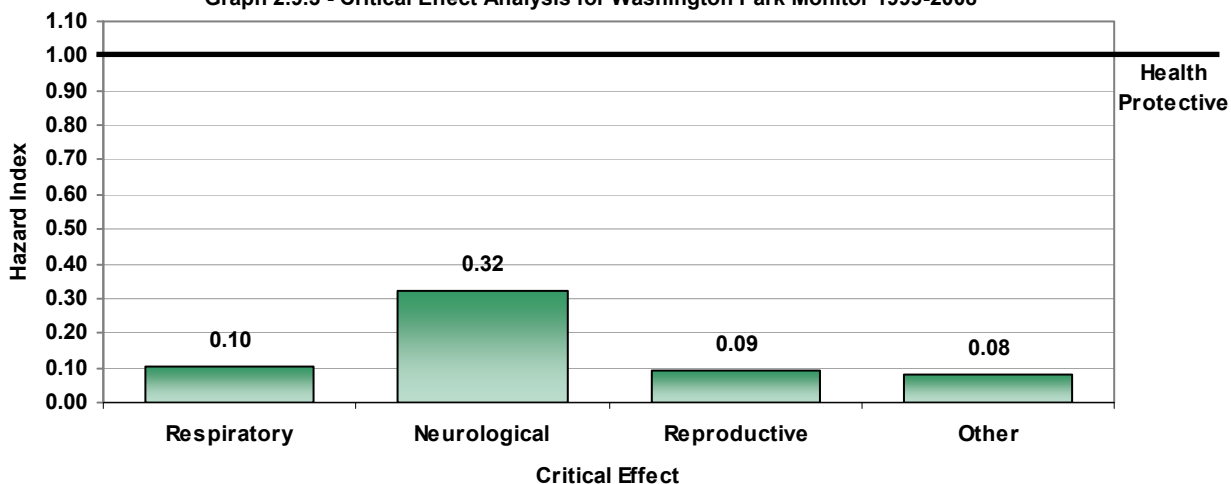
2.9.4   CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be trending downwards at the Washington Park monitor over the last decade. Of the twenty-four (24) pollutants at Washington Park which had detection rates sufficient to calculate some form of concentration trend, fourteen (14) showed a decreasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Eight (8) showed no discernable trend and two (2) showed an increasing trend. Table 2.9.4 shows pertinent summary data about concentrations and trends at the Washington Park monitor. Graph 2.9.4 displays the daily concentrations of those pollutants with an increasing trend at the Washington Park monitor. Table 2.9.5 shows yearly exposure point concentrations for the Washington Park monitor.

Graph 2.9.4 Pollutants with an Increasing Concentration Trend at Washington Park Monitor 1999-2008
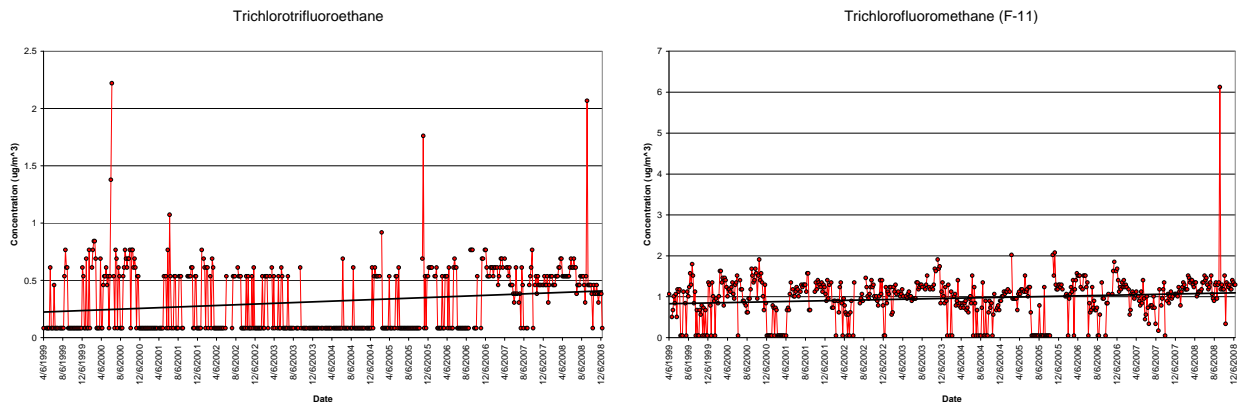
Table 2.9.4 – Concentrations and Trends Summary for Washington Park Monitor 1999-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	87.8%	377	↘	8.6	8.3	46	32	9.3
Acrolein	107-02-8	90.9%	121	↔	2	1.6	9.2	5.7	2.3
Benzene	71-43-2	94.5%	532	↘	1.5	1.4	9.1	5.0	1.6
Benzyl Chloride	100-44-7	12.2%	377		0.64	0.62	5.2	3.6	0.69
Bromomethane	74-83-9	16.1%	490		0.27	0.20	1.7	0.75	0.28
1,3-Butadiene	106-99-0	13.0%	377		0.13	0.20	2.1	0.67	0.15
Carbon Disulfide	75-15-0	14.3%	377		0.29	0.55	5.5	1.5	0.33
Carbon Tetrachloride	56-23-5	10.1%	387		0.23	0.19	2.2	0.82	0.25
Chloromethane	74-87-3	85.0%	532	↔	0.93	1.3	16	2.4	1.0
Cyclohexane	100-82-7	37.8%	532	↘	0.24	0.32	3.5	0.96	0.26
p-Dichlorobenzene	106-46-7	14.7%	532		0.24	0.22	2.9	1.0	0.25
Dichlorodifluoromethane (F-12)	75-71-8	90.2%	532	↔	2.5	5.1	86	4.1	2.9
Dichloromethane	75-09-2	39.8%	532	↔	0.41	0.61	5.7	1.8	0.46
1,4-Dioxane	123-91-1	5.5%	325				4.4	3.1	
Ethanol	64-17-5	78.8%	377	↔	28	35	190	130	31
Ethyl Acetate	141-78-6	41.9%	377	↔	0.33	0.40	2.8	1.4	0.36
Ethylbenzene	100-41-4	83.3%	532	↘	0.56	0.59	4.4	2.0	0.60
p-Ethyltoluene	622-96-8	46.6%	532	↘	0.41	0.43	3.8	1.5	0.44
Heptane	142-82-5	75.2%	532	↘	0.50	0.53	4.6	1.9	0.54
Hexane	110-54-3	83.5%	532	↘	0.95	1.1	8.8	3.7	1.0
Isopropanol	67-63-0	62.9%	377	↔	0.94	1.4	14	4.2	1.1
Methyl Ethyl Ketone (MEK)	78-93-3	87.8%	377	↔	1.9	1.8	18	6.0	2.1
Methyl Isobutyl Ketone (MIBK)	108-10-1	16.7%	377		0.30	1.2	170	170	0.41
Methyl n-Butyl Ketone (MBK)	591-78-6	24.9%	377		0.45	2.3	41	2.2	0.66
Propene	115-07-1	93.6%	532	↘	1.9	2.9	31	7.1	2.1
Styrene	100-42-5	24.4%	532		0.35	0.96	12	1.5	0.42
Tetrahydrofuran (THF)	109-99-9	10.6%	377		0.19	0.40	7.5	0.59	0.23
Toluene	108-88-3	96.6%	532	↘	6.4	9.0	89	29	7.1
Trichlorotrifluoroethane	76-13-1	46.1%	532	↗	0.46	0.21	2.2	0.84	0.47
1,1,1-Trichloroethane	71-55-6	0.0%	480						
Trichloroethene (TCE)	79-01-6	4.3%	532				6.3	1.2	
Trichlorofluoromethane (F-11)	75-69-4	85.9%	532	↗	0.99	0.47	6.1	1.6	1.0
1,3,5-Trimethylbenzene	108-67-8	29.3%	532	↘	0.42	0.36	4.5	1.2	0.45
1,2,4-Trimethylbenzene	95-63-6	58.8%	532	↘	1.2	1.6	11	5.3	1.3
Vinyl Acetate	108-05-4	76.4%	123	↘	3.7	5.6	36	15	4.6
Vinylidene Chloride	75-35-4	0.0%	387						
o-Xylene	95-47-6	58.3%	532	↘	0.75	1.5	19	2.9	0.86
m+p-Xylenes	106-42-3	92.9%	532	↘	1.8	2.0	15	7.2	1.9

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.9.5 – Yearly Exposure Point Concentrations for Washington Park Monitor 1999-2008

Pollutant	CAS#	1999 $\mu g/m^3$	2000 $\mu g/m^3$	2001 $\mu g/m^3$	2002 $\mu g/m^3$	2003 $\mu g/m^3$	2004 $\mu g/m^3$	2005 $\mu g/m^3$	2006 $\mu g/m^3$	2007 $\mu g/m^3$	2008 $\mu g/m^3$
Acetone	67-64-1				13	15	9.9	7.5	14	9.2	5.6
Acrolein	107-02-8								3.0	2.5	2.3
Benzene	71-43-2	2.3	2.1	3.0	1.6	1.7	1.5	1.3	1.8	1.4	1.4
Benzyl Chloride	100-44-7				0.58		0.99	2.2			
Bromomethane	74-83-9						0.54	0.56	0.61		0.31
1,3-Butadiene	106-99-0					1.1				0.22	0.16
Carbon Disulfide	75-15-0				1.4					0.17	0.47
Carbon Tetrachloride	56-23-5									0.33	0.34
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3									0.15	0.15
Chloromethane	74-87-3	0.84	1.1	0.86	3.2	1.1	0.39	0.82	1.0	0.90	0.96
Cyclohexane	100-82-7	0.57	0.43	0.46	0.29	0.30	0.31	0.55	0.38	0.20	0.19
m-Dichlorobenzene	541-73-1										
p-Dichlorobenzene	106-46-7	0.38	0.42	0.47					0.64	0.46	0.27
o-Dichlorobenzene	95-50-1										
Dichlorodifluoromethane (F-12)	75-71-8	2.4	2.8	2.3	10	2.5	1.4	2.1	2.5	2.2	3.0
Dichloromethane	75-09-2	0.62	0.86	1.1	0.56	1.0	0.63	0.71	0.50	0.29	0.37
1,2-Dichloropropane	78-87-5	0.96									
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.7									
1,4-Dioxane	123-91-1									0.57	0.21
Ethanol	64-17-5				48	53	32	9.7	33	49	31
Ethyl Acetate	141-78-6				0.53	0.73		0.51	0.4	0.49	0.23
Ethylbenzene	100-41-4	1.1	1.1	1.0	0.51	0.62	0.52	0.57	0.59	0.45	0.47
p-Ethyltoluene	622-96-8	0.63	0.74	0.89	0.40	0.44	0.46	0.49	0.57	0.27	0.31
Heptane	142-82-5	0.93	0.98	0.96	0.40	0.40	0.48	0.39	0.74	0.46	0.49
Hexane	110-54-3	2.0	1.8	1.7	0.9	0.78	0.94	0.87	1.2	0.86	1.0
Isopropanol	67-63-0				1.4	1.9	2.0	0.64	1.5	1.1	0.67
Methyl Ethyl Ketone (MEK)	78-93-3				1.9	2.1	2.5	3.3	2.6	2.0	1.8
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.41	0.22
Methyl n-Butyl Ketone (MBK)	591-78-6									0.62	0.36
Propene	115-07-1	2.5	1.8	2.5	4.2	5.5	1.3	1.8	2.6	0.87	1.2
Styrene	100-42-5	0.98	1.8	0.60		0.34		0.32	0.36	0.24	0.15
Tetrachloroethene (PCE)	127-18-4									0.25	0.31
Tetrahydrofuran (THF)	109-99-9						0.27	0.74	0.26	0.17	0.39
Toluene	108-88-3	17	14	18	6.8	11	3.4	2.5	3.3	2.6	3.2
Trichlorotrifluoroethane	76-13-1	0.5	0.68	0.57	0.57	0.55		0.62	0.60	0.53	0.58
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6	1.7								0.17	
Trichlorofluoromethane (F-11)	75-69-4	0.96	1.2	1.1	1.0	1.2	0.89	1.1	1.2	1.0	1.5
1,3,5-Trimethylbenzene	108-67-8	0.72	0.78	0.76	0.48		0.50	0.44	0.44	0.29	0.29
1,2,4-Trimethylbenzene	95-63-6	4.0	3.9	2.1	0.81	0.90	0.89	0.74	0.99	0.71	0.67
Vinyl Acetate	108-05-4								9.5	6.1	3.6
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6	1.4	2.9	1.3	0.84	0.88	0.81	0.68	0.83	0.57	0.56
m+p-Xylenes	106-42-3	3.6	3.6	3.2	1.7	2.2	1.8	1.4	1.5	1.5	1.5

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
$\mu g/m^3$: micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.9.5   2002 NATA COMPARISON

2002 National Air Toxics Assessment (NATA) modeling estimates for the census tract in which the Washington Park monitor is located (census tract 350700 of Marion County) were compared to the mean of readings recorded at the Washington Park monitor for 2002. Unfortunately, there were only a handful of compounds for which 2002 NATA had estimates and the ToxWatch database had adequate data to derive a mean. These compounds are displayed in Table 2.9.6. In general, NATA estimates and ToxWatch means are in relatively good agreement. NATA appears to have underestimated concentrations at the Washington Park monitor in general, especially for benzyl chloride and carbon disulfide. Carbon disulfide is a relatively non-toxic compound and monitored concentrations are still well below health-protective levels. Benzyl chloride is a relatively potent carcinogen but examination of the rest of the ToxWatch database indicates that this was likely an isolated incident.

**Table 2.9.6 – Comparison of 2002 NATA Concentration Estimates to
2002 Washington Park ToxWatch Monitoring Results**

ToxWatch Name	CAS	NATA µg/m^3	ToxWatch µg/m^3	Diff.
Benzene	71-43-2	1.09	1.3	-16%
Benzyl Chloride	100-44-7	0.0000371	0.52	-100%
Carbon Disulfide	75-15-0	0.00128	1.1	-100%
Chloromethane	74-87-3	1.2	2.3	-48%
Dichloromethane	75-09-2	0.239	0.5	-52%
Ethylbenzene	100-41-4	0.317	0.38	-17%
Hexane	110-54-3	0.337	0.68	-50%
Toluene	108-88-3	2.6	5.2	-50%
o-Xylene[1]	95-47-6	1.38	0.7	97%
m+p-Xylenes[1]	106-42-3	1.38	1.2	15%

 1: Little weight should be given to the xylene comparisons because ToxWatch differentiates
between isomers of xylene and NATA does not.
NATA: Modeling Estimate from National Air Toxics Assessment (2002)
ToxWatch : Mean of ToxWatch readings taken in 2002
Diff.: The percent difference between the NATA estimate and the ToxWatch mean.

2.9.6   CONCLUSIONS

The Washington Park air toxics monitor is located on the east side of Indianapolis. As with other monitors, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. In addition, the concentrations of air toxics measured at this location appear to be decreasing for the most part. 58% of trends calculated at this monitor were decreasing. Only 8% were increasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

2.10   WHITING HIGH SCHOOL

2.10.1   INTRODUCTION

The Whiting – HS (Whiting High School) monitor is located at 1751 Oliver St., Whiting, IN, 46394. It has been monitoring air toxics concentrations from 2004 through present day. The Whiting High School monitor is located in the northwestern portion of the state in Lake County. This area of Indiana is one of the most heavily industrialized areas of the nation. Large emitters of air toxics within Lake County include the U.S. Gary Works facility, the State Line Generating Plant and the BP Products Whiting Facility.

Figure 2.10.1 – Map of Whiting High School Monitor and Surrounding Area

2.10.2   METEOROLOGY

The Whiting area's meteorology and climate is largely influenced by the proximity of Lake Michigan with Whiting essentially located on the Lake Michigan shoreline. Lake Michigan has a moderating effect on the seasonal temperatures with its cooler-than-the-nearby-land water temperatures in the late spring through early fall and its warmer-than-the-nearby-land water temperatures from the late fall through the early spring. This has the seasonal effect of keeping the winter months' temperatures slightly warmer and the summer months' temperatures slightly cooler.

Additionally, Lake Michigan provides a moisture source for lake effect snow from November through March with the potential for creating heavy snow events. The Whiting region averages approximately 40 inches of snow per year. Deep snow cover during the winter months can help contribute to temperature inversions
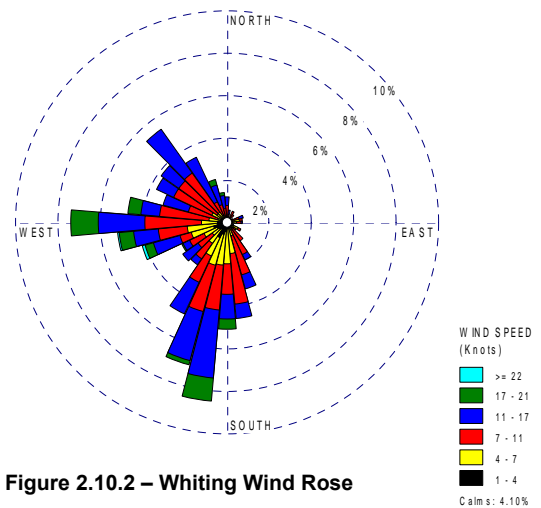
Figure 2.10.2 – Whiting Wind Rose

and a reduction in the atmospheric mixing of ground level pollutants leading to an increase in concentrations. Similarly, dense fog in the winter and early spring occurs when warmer air masses move over the colder snow pack creating temperature inversions and a reduction in the atmospheric dispersion of pollutants.

The annual wind rose (Figure 2.10.2) shows the predominant wind direction to be from a south southwesterly direction, but increased levels of pollutants can occur with any wind direction, especially during periods of light to calm winds. The formation of lake breezes in the late spring and summer months can also create recirculation patterns that lead to higher pollutant concentration, especially ozone. Calm winds were reported at the Hammond meteorological site approximately four percent of the time during the year 2008.

2.10.3 RISKS AND HAZARDS

Six out of nine carcinogens for which risk estimates could be calculated exceeded the 1-in-1,000,000 risk level set forth by U.S. EPA. These pollutants, along with their risk estimates, are available in Table 2.10.2. Of these, only benzyl chloride exceeded a risk estimate of 10-in-1,000,000. Air samples collected from the Whiting High School monitor displayed a total risk from measured pollutants of approximately 56-in-1,000,000. Over half of this risk is directly attributable to benzyl chloride whose readings have been called into question. There were several issues with both benzyl chloride's toxicity information and its monitoring results, and these issues should be considered when evaluating the hazard posed by benzyl chloride. Please see section 3.4 for more information about benzyl chloride. Removing benzyl chloride from consideration, the total risk from measured pollutants at the Whiting High School monitor falls to approximately 25-in-1,000,000, still somewhat elevated by U.S. EPA standards, but within the range seen across the state. This remaining risk was made up of benzene, 1,3-butadiene, carbon tetrachloride, dichloromethane, p-dichlorobenzene, 1,4-dioxane, ethylbenzene, and trichloroethene. All of these individual pollutants displayed a risk above 1-in-1,000,000, except dichloromethane, ethylbenzene, and trichloroethene.

As with all other monitors within the state, acrolein is the major non-carcinogenic concern at the Whiting High School monitoring location. Its three-year hazard quotient is 110, tying it with Pierre Moran School and Washington Park for the second highest hazard quotient seen in the study. The second highest hazard quotient at Whiting High School comes from benzyl chloride, with a value of 0.97. As mentioned above, there are some issues with benzyl chloride's data. When all other pollutants' hazard quotients are combined, the result is a hazard index of 0.29. This is relatively low but the pollutants have been broken down by critical effect to make it clear that air concentrations of monitored pollutants are still well below levels that should be of non-carcinogenic concern.

When the critical effects of pollutants are considered, and acrolein and benzyl chloride are excluded, the highest hazard index is 0.13, for respiratory effects. A little more than half of this hazard index is attributable to bromomethane. See Table 2.10.3 and Graph 2.10.3 for more information on the critical effects analysis at the Whiting High School monitor.

Table 2.10.1 - Hazard Quotients for Whiting High School Monitor 2004-2008

Pollutant	CAS#	Detect Rate	Sample Size	Hazard Quotient
Acetone	67-64-1	91.3%	275	0.00028
Acrolein	107-02-8	93.2%	132	110
Benzene	71-43-2	90.9%	275	0.029
Benzyl Chloride	100-44-7	12.4%	275	0.97
Bromomethane	74-83-9	26.2%	275	0.076
1,3-Butadiene	106-99-0	11.6%	275	0.060
Carbon Disulfide	75-15-0	21.1%	275	0.0061
Carbon Tetrachloride	56-23-5	18.2%	275	0.0013
Chloromethane	74-87-3	88.7%	275	0.012
Cyclohexane	100-82-7	49.1%	275	0.000048
p-Dichlorobenzene	106-46-7	54.9%	275	0.00092
Dichlorodifluoromethane (F-12)	75-71-8	94.5%	275	0.0020
Dichloromethane	75-09-2	38.9%	275	0.00027
1,4-Dioxane	123-91-1	8.0%	275	0.000067
Ethanol	64-17-5	84.4%	275	0.00048
Ethyl Acetate	141-78-6	48.7%	275	0.0015
Ethylbenzene	100-41-4	60.4%	275	0.00027
Heptane	142-82-5	80.4%	275	0.0014
Hexane	110-54-3	84.7%	275	0.0011
Isopropanol	67-63-0	61.1%	275	0.00020
Methyl Ethyl Ketone (MEK)	78-93-3	92.4%	275	0.00052
Methyl Isobutyl Ketone (MIBK)	108-10-1	27.3%	275	0.00010
Methyl n-Butyl Ketone (MBK)	591-78-6	39.3%	275	0.013
Propene	115-07-1	93.1%	275	0.00050
Tetrahydrofuran (THF)	109-99-9	18.5%	275	0.0071
Toluene	108-88-3	94.5%	275	0.00028
Trichloroethene (TCE)	79-01-6	8.0%	275	0.00028
Trichlorofluoromethane (F-11)	75-69-4	90.2%	275	0.0017
1,2,4-Trimethylbenzene	95-63-6	40.7%	275	0.047
Vinyl Acetate	108-05-4	82.2%	135	0.023
o-Xylene	95-47-6	33.8%	275	0.0023
m+p-Xylenes	106-42-3	76.0%	275	0.0075

Table 2.10.2 – Cancer Risk Estimates for Whiting High School Monitor 2004-2008

| Pollutant	CAS#	Detect Rate	Sample Size	Risk Estimate
Benzene	71-43-2	90.9%	275	6.8×10^{-06}
Benzyl Chloride	100-44-7	12.4%	275	3.1×10^{-05}
1,3-Butadiene	106-99-0	11.6%	275	3.6×10^{-06}
Carbon Tetrachloride	56-23-5	18.2%	275	3.6×10^{-06}
p-Dichlorobenzene	106-46-7	54.9%	275	8.1×10^{-06}
Dichloromethane	75-09-2	38.9%	275	1.3×10^{-07}
1,4-Dioxane	123-91-1	8.0%	275	1.8×10^{-06}
Ethylbenzene	100-41-4	60.4%	275	6.8×10^{-07}
Trichloroethene (TCE)	79-01-6	8.0%	275	3.4×10^{-07}

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples that had a concentration of the pollutant above the method detection limit
Sample Size: The number of valid samples in the data set
Hazard Quotient: A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective. Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Risk Estimate: The increased lifetime risk of contracting cancer based on 70 years of exposure to this pollutant. In scientific notation, read 7.3-times10^{-06} as 7.3-in-1,000,000; could also be displayed as 7.3E-6 or 0.0000073

Graph 2.10.1 - Hazard Quotients for Whiting High School Monitor 2004-2008

Graph 2.10.2 - Cancer Risk Estimates for Whiting High School Monitor 2004-2008
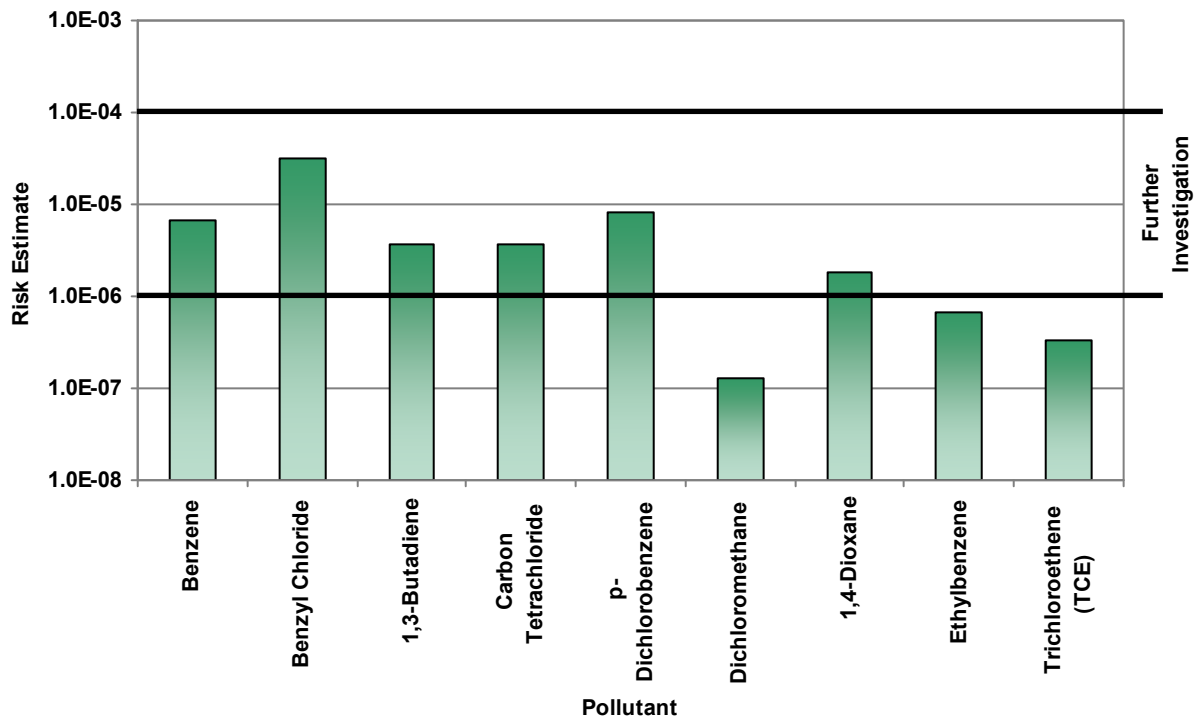
Table 2.10.3 - Critical Effects Analysis for Whiting High School Monitor 2004-2008

Respiratory			Neurological		
Pollutant	CAS#	HQ	Pollutant	CAS#	HQ
Bromomethane	74-83-9	0.076	Acetone	67-64-1	0.00028
Dichlorodifluoromethane (F-12)*	75-71-8	0.0020	Carbon Disulfide	75-15-0	0.0061
Ethanol*	64-17-5	0.00048	Chloromethane	74-87-3	0.012
Heptane*	142-82-5	0.0014	Dichlorodifluoromethane (F-12)*	75-71-8	0.0020
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.013	Ethanol*	64-17-5	0.00048
Propene	115-07-1	0.00050	Heptane*	142-82-5	0.0014
Tetrahydrofuran (THF)	109-99-9	0.0071	Hexane	110-54-3	0.0011
Trichlorofluoromethane (F-11)*	75-69-4	0.0017	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.013
Vinyl Acetate	108-05-4	0.023	Toluene	108-88-3	0.00028
			Trichloroethene (TCE)	79-01-6	0.00028
			Trichlorofluoromethane (F-11)*	75-69-4	0.0017
			1,2,4-Trimethylbenzene	95-63-6	0.047
			o-Xylene	95-47-6	0.0023
			m+p-Xylenes	106-42-3	0.0075
Hazard Index		0.13	**Hazard Index**		0.10
Reproductive			Other		
Pollutant	CAS#	HQ	Pollutant	CAS#	HQ
1,3-Butadiene	106-99-0	0.060	Benzene	71-43-2	0.029
Cyclohexane	100-82-7	0.000048	Carbon Tetrachloride	56-23-5	0.0013
p-Dichlorobenzene	106-46-7	0.00092	Dichlorodifluoromethane (F-12)*	75-71-8	0.0020
Dichlorodifluoromethane (F-12)*	75-71-8	0.0020	Dichloromethane	75-09-2	0.00027
Ethanol*	64-17-5	0.00048	1,4-Dioxane	123-91-1	0.000067
Ethylbenzene	100-41-4	0.00027	Ethanol*	64-17-5	0.00048
Heptane*	142-82-5	0.0014	Ethyl Acetate	141-78-6	0.0015
Isopropanol	67-63-0	0.00020	Heptane*	142-82-5	0.0014
Methyl Ethyl Ketone (MEK)	78-93-3	0.00052	Isopropanol	67-63-0	0.00020
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.00010	Methyl n-Butyl Ketone (MBK)*	591-78-6	0.013
Methyl n-Butyl Ketone (MBK)*	591-78-6	0.013	Tetrahydrofuran (THF)	109-99-9	0.0071
Trichlorofluoromethane (F-11)*	75-69-4	0.0017	Trichloroethene (TCE)	79-01-6	0.00028
			Trichlorofluoromethane (F-11)*	75-69-4	0.0017
Hazard Index		0.080	**Hazard Index**		0.060

* Denotes pollutants whose critical effect was not identified, and so have been added to all critical effect groups.
CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
HQ: Hazard Quotient; A measure of the non-carcinogenic hazard posed by a pollutant. Any value below 1.0 is considered health protective.
Values greater than or equal to 1.0 indicate that the potential for a non-carcinogenic effect exists.
Hazard Index: The sum of multiple hazard quotients

Graph 2.10.3 - Critical Effect Analysis for Whiting High School Monitor 2004-2008
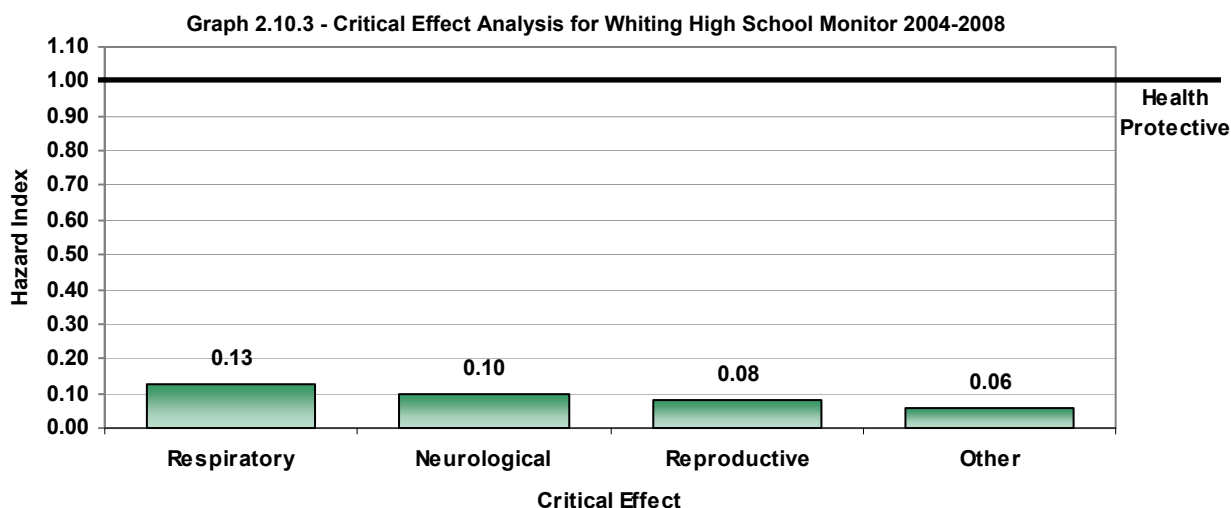
2.10.4 CONCENTRATIONS AND TRENDS

Pollutant concentrations appear to be trending strongly upwards at the Whiting High School monitor over the 5-years it has been monitored. Of the twenty-six (26) pollutants at Whiting High School which had detection rates sufficient to calculate some form of concentration trend, seventeen (17) showed an increasing trend when a 90% two-tailed Mann-Kendall trend analysis was conducted. Six (6) showed no discernable trend and three (3) showed a decreasing trend. Table 2.10.4 shows pertinent summary data about concentrations and trends at the Whiting High School monitor. Graph 2.10.4 displays the daily concentrations of those pollutants with an increasing trend at the Whiting High School monitor. Table 2.10.5 shows yearly exposure point concentrations for the Whiting High School monitor.

Examination of the trend graphs included in Graph 2.10.4 shows that several of these increasing trends may be an artifact of the analysis technique, rather that indicative of true increasing trends in the pollutant. In order to prevent generally decreasing detection limits from causing a false decreasing trend in the trend analysis, the lowest method detection limit was used for all years. As a result, any pollutant that shows many non-detects early in the monitoring and fewer in the later years is likely being influenced by this artifact and should be looked at more closely before making any determinations about true trends in its concentration.

Graph 2.10.4 Pollutants with an Increasing Concentration Trend at Whiting High School Monitor 2004-2008

Dichlorodifluoromethane (F-12)

Dichloromethane

Ethanol

Ethyl Acetate

Heptane

Hexane

Methyl Isobutyl Ketone (MIBK)

Methyl n-Butyl Ketone (MBK)

Toluene

Trichlorotrifluoroethane

Trichlorofluoromethane (F-11)

1,2,4-Trimethylbenzene
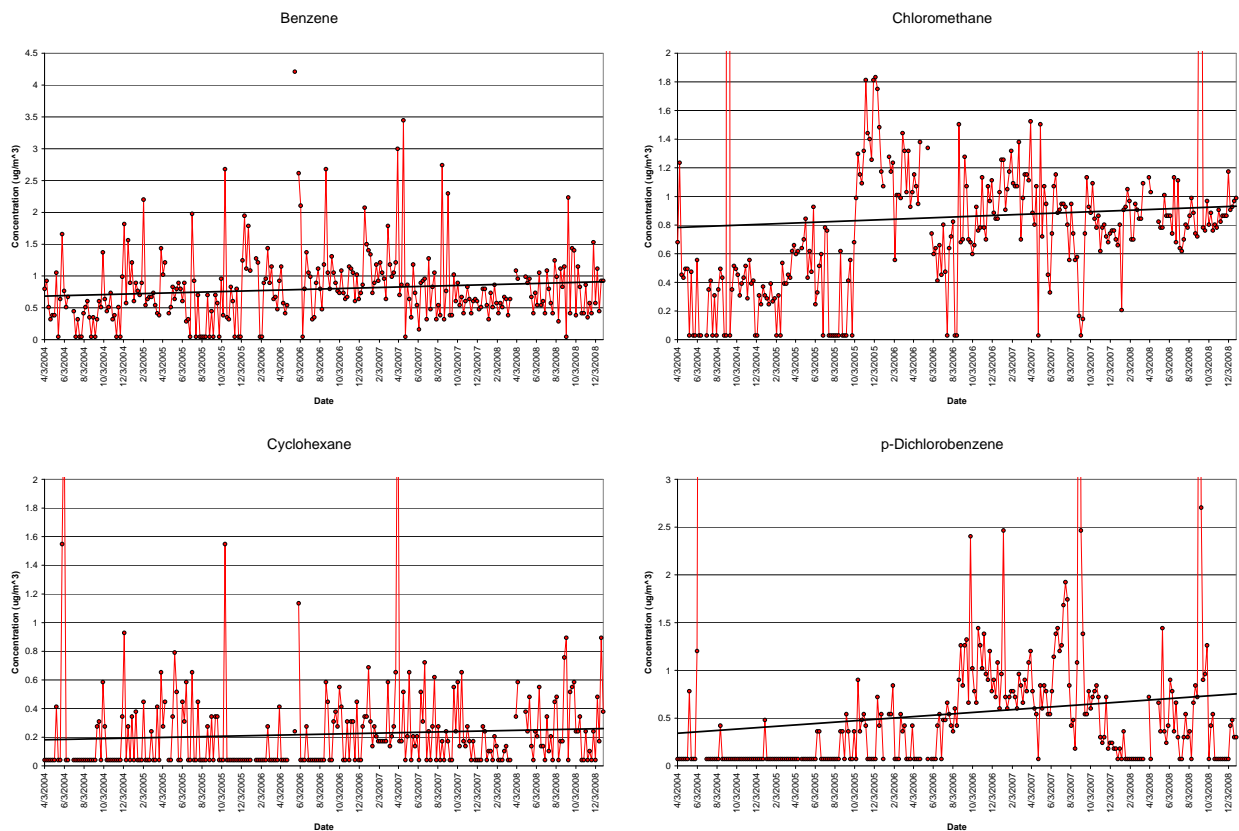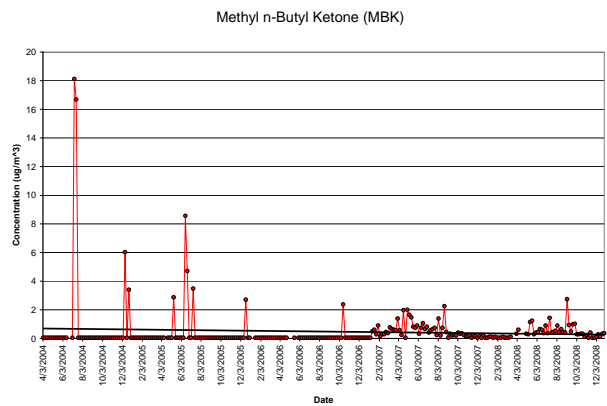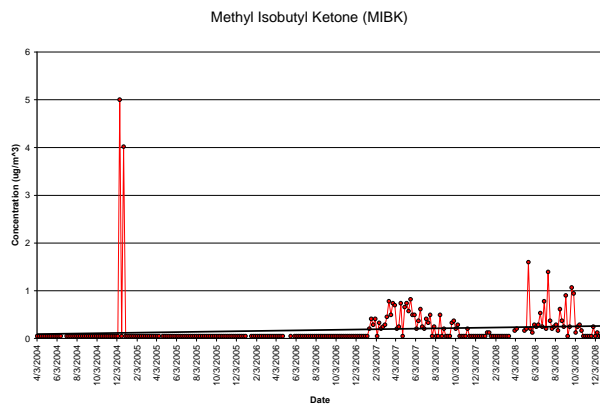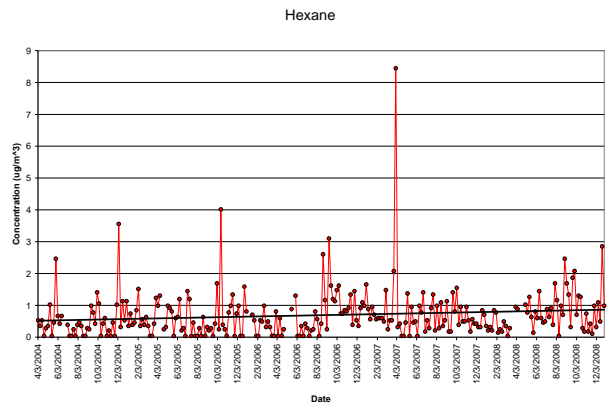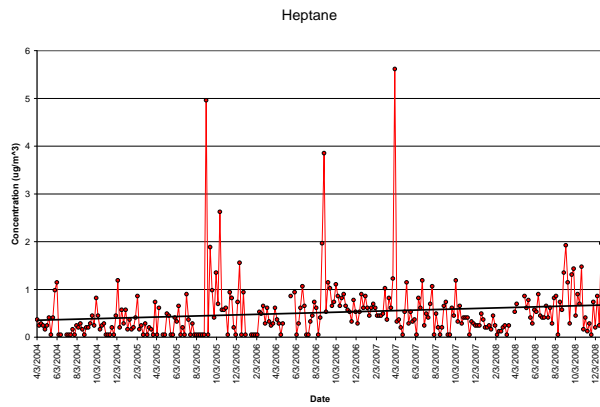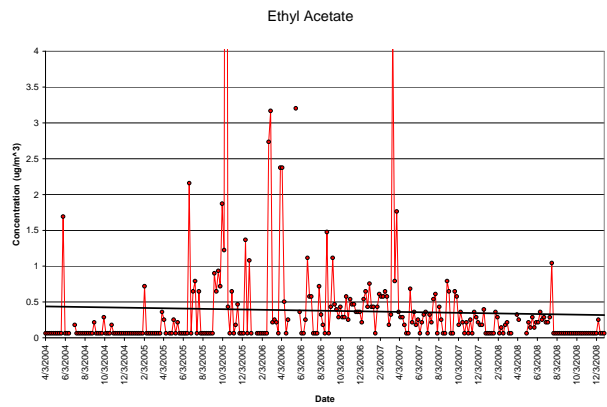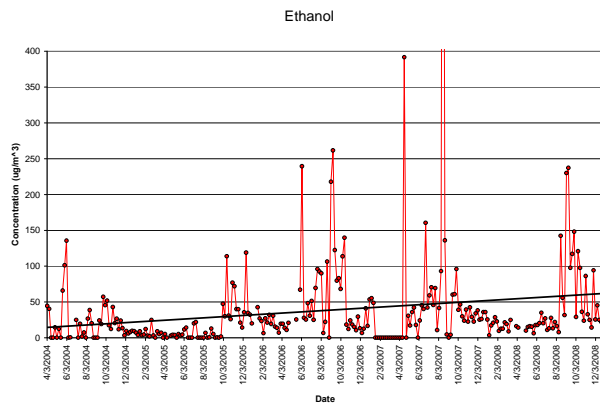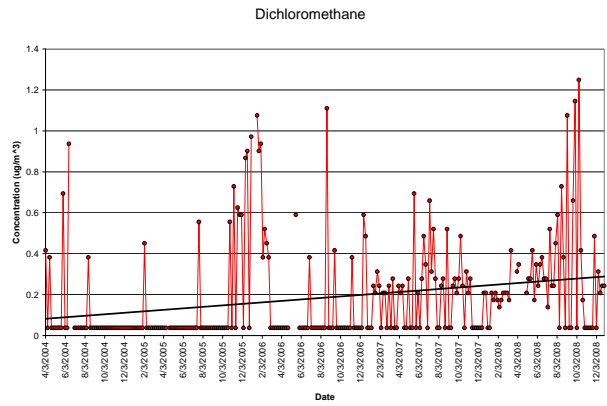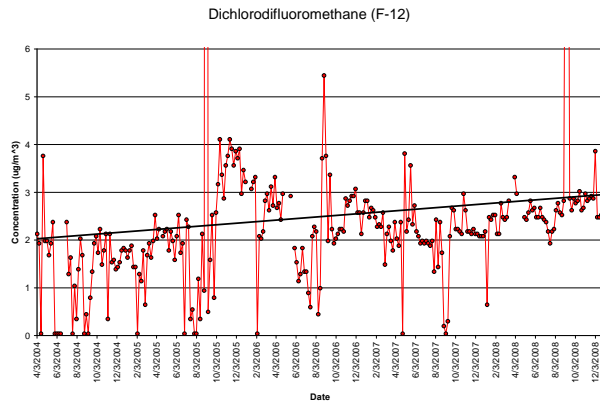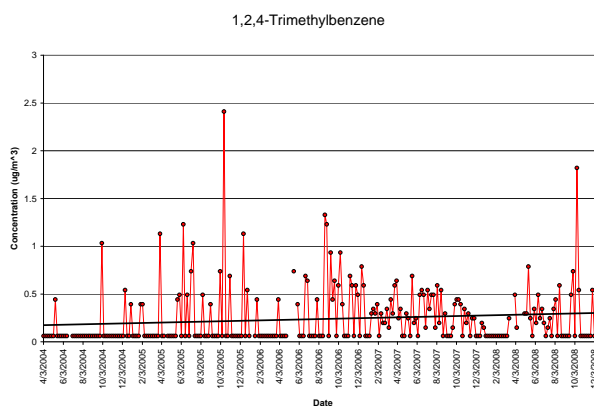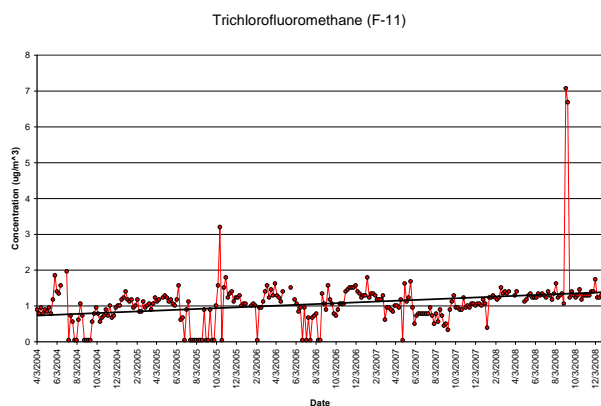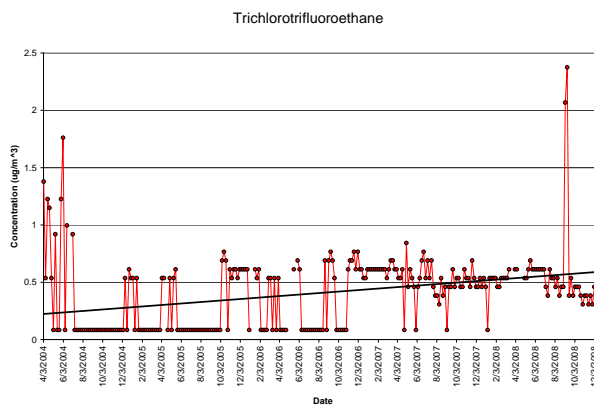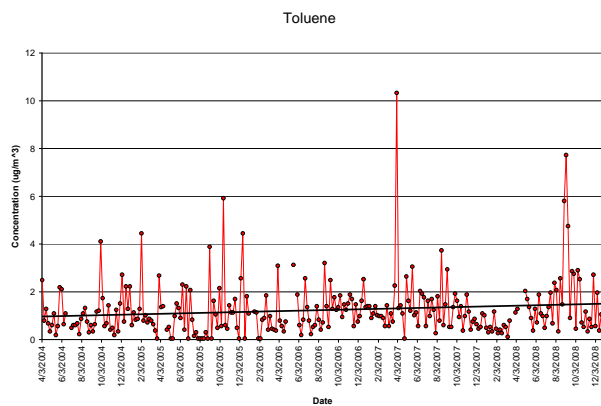
o-Xylene
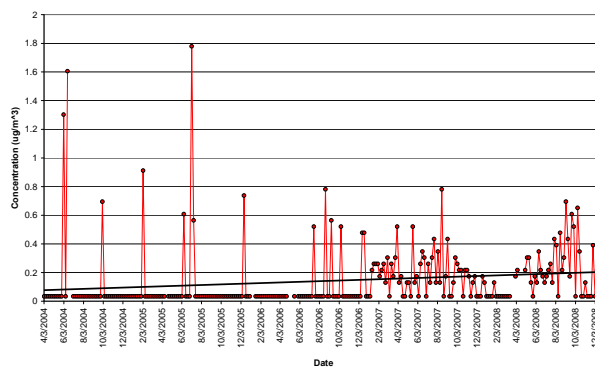
Table 2.10.4 – Concentrations and Trends Summary for Whiting High School Monitor 2004-2008

Pollutant	CAS#	Detect Rate	Sample Size	MK Trend	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³
Acetone	67-64-1	91.3%	275	↔	7.9	7.8	46	28	8.7
Acrolein	107-02-8	93.2%	132	↔	2.1	2	13	7.8	2.3
Benzene	71-43-2	90.9%	275	↗	0.81	0.56	4.2	2.2	0.87
Benzyl Chloride	100-44-7	12.4%	275		0.59	0.48	3.6	3.6	0.64
Bromomethane	74-83-9	26.2%	275	↘	0.35	0.26	1.8	0.97	0.38
1,3-Butadiene	106-99-0	11.6%	275		0.11	0.13	1.6	0.22	0.12
Carbon Disulfide	75-15-0	21.1%	275		3.2	11	66	36	4.3
Carbon Tetrachloride	56-23-5	18.2%	275		0.23	0.11	0.82	0.75	0.24
Chloromethane	74-87-3	88.7%	275	↗	0.87	1.9	31	1.5	1.1
Cyclohexane	100-82-7	49.1%	275	↗	0.26	0.32	3.2	0.78	0.29
p-Dichlorobenzene	106-46-7	54.9%	275	↗	0.63	1.0	8.9	1.9	0.74
Dichlorodifluoromethane (F-12)	75-71-8	94.5%	275	↗	2.5	4.8	79	3.9	3.0
Dichloromethane	75-09-2	38.9%	275	↗	0.25	0.21	1.2	0.90	0.27
1,4-Dioxane	123-91-1	8.0%	275		0.20	0.36	4.4	0.85	0.24
Ethanol	64-17-5	84.4%	275	↗	38	90	1300	150	48
Ethyl Acetate	141-78-6	48.7%	275	↗	0.43	1.1	16	1.8	0.54
Ethylbenzene	100-41-4	60.4%	275	↔	0.25	0.20	1.9	0.69	0.27
p-Ethyltoluene	622-96-8	19.6%	275		0.24	0.14	1.6	0.49	0.25
Heptane	142-82-5	80.4%	275	↗	0.54	0.60	5.6	1.5	0.60
Hexane	110-54-3	84.7%	275	↗	0.71	0.75	8.4	2.1	0.79
Isopropanol	67-63-0	61.1%	275	↔	1.1	2.8	30	5.1	1.4
Methyl Ethyl Ketone (MEK)	78-93-3	92.4%	275	↔	2.4	2.3	17	7.5	2.6
Methyl Isobutyl Ketone (MIBK)	108-10-1	27.3%	275	↗	0.26	0.43	5.0	0.78	0.30
Methyl n-Butyl Ketone (MBK)	591-78-6	39.3%	275	↗	0.56	1.7	18	2.7	0.74
Propene	115-07-1	93.1%	275	↘	1.4	1.1	7.4	3.8	1.5
Styrene	100-42-5	3.6%	275				0.66	0.66	
Tetrahydrofuran (THF)	109-99-9	18.5%	275		0.23	0.16	1.5	0.64	0.25
Toluene	108-88-3	94.5%	275	↗	1.2	1.2	10	3.8	1.4
Trichlorotrifluoroethane	76-13-1	62.2%	275	↗	0.52	0.25	2.4	0.92	0.54
1,1,1-Trichloroethane	71-55-6	0.0%	275						
Trichloroethene (TCE)	79-01-6	8.0%	275		0.17	0.037	0.55	0.55	0.17
Trichlorofluoromethane (F-11)	75-69-4	90.2%	275	↗	1.1	0.63	7.1	1.7	1.2
1,3,5-Trimethylbenzene	108-67-8	4.4%	275				0.84	0.65	
1,2,4-Trimethylbenzene	95-63-6	40.7%	275	↗	0.30	0.28	2.4	1.0	0.33
Vinyl Acetate	108-05-4	82.2%	135	↘	3.8	5.3	36	14	4.6
Vinylidene Chloride	75-35-4	0.7%	275				0.62	0.62	
o-Xylene	95-47-6	33.8%	275	↗	0.21	0.21	1.8	0.68	0.23
m+p-Xylenes	106-42-3	76.0%	275	↔	0.67	0.72	6.6	3.2	0.75

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
Detect Rate: The percentage of valid samples which had readings for the pollutant above the method detection limit
Sample Size: The number of valid samples in the sample set
MK Trend: The 90% confidence two-tailed Mann-Kendall trend test result; ↘ = Decreasing Trend; ↔ = No Discernable Trend;
↗ = Increasing Trend , <blank> = Insufficient Data
KM Mean, KM St. Dev: The mean and standard deviation, respectively, calculated using the Kaplan-Meier procedure
Max Detect: The maximum detected concentration in the sample set
97th Pecentile: The concentration one would expect 97% of all samples to be below
95% KM(t) UCL: 95% student's-t upper confidence limit of the mean using the Kaplan-Meier procedure to handle non-detects
µg/m³ : micrograms per cubic meter

Table 2.10.5 – Yearly Exposure Point Concentrations Whiting High School Monitor 2004-2008

Pollutant	CAS#	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
Acetone	67-64-1						11	7.6	14	8.4	7.9
Acrolein	107-02-8								4.0	1.6	2.8
Benzene	71-43-2						0.73	0.86	1.2	1.0	0.84
Benzyl Chloride	100-44-7						0.78	1.8			
Bromomethane	74-83-9						0.57	0.65	0.60		0.30
1,3-Butadiene	106-99-0										0.20
Carbon Disulfide	75-15-0									0.20	19
Carbon Tetrachloride	56-23-5									0.34	0.33
Chlorobenzene	108-90-7										
Chloroethane	75-00-3										
Chloroform	67-66-3									0.16	
Chloromethane	74-87-3						2.3	0.78	0.97	0.93	1.1
Cyclohexane	100-82-7						0.51	0.37	0.34	0.40	0.31
m-Dichlorobenzene	541-73-1						1.9	0.39	0.61		
p-Dichlorobenzene	106-46-7						1.5	0.41	0.79	1.1	0.78
o-Dichlorobenzene	95-50-1						4.0				
Dichlorodifluoromethane (F-12)	75-71-8						1.7	5.6	2.6	2.3	3.5
Dichloromethane	75-09-2						0.43	0.52	0.48	0.29	0.37
1,2-Dichloropropane	78-87-5										
Dichloro-Tetrafluoroethane (F-114)	76-14-2										
1,4-Dioxane	123-91-1									0.24	0.42
Ethanol	64-17-5						29	22	63	98	54
Ethyl Acetate	141-78-6						0.33	1.1	0.78	0.56	0.23
Ethylbenzene	100-41-4						0.39	0.31	0.31	0.26	0.31
p-Ethyltoluene	622-96-8						0.33	0.35	0.34	0.20	
Heptane	142-82-5						0.43	0.71	0.77	0.74	0.67
Hexane	110-54-3						0.79	0.78	0.88	1.0	0.92
Isopropanol	67-63-0						4.3	1.3	1.4	1.0	0.82
Methyl Ethyl Ketone (MEK)	78-93-3						2.3	3.6	2.9	2.2	3.1
Methyl Isobutyl Ketone (MIBK)	108-10-1									0.38	0.37
Methyl n-Butyl Ketone (MBK)	591-78-6						5.0	3.1		0.69	0.55
Propene	115-07-1						1.3	2.1	2.2	1.2	1.4
Styrene	100-42-5										0.17
Tetrachloroethene (PCE)	127-18-4									0.22	
Tetrahydrofuran (THF)	109-99-9						0.28	0.38	0.26	0.21	0.47
Toluene	108-88-3						1.3	1.4	1.4	1.7	1.7
Trichlorotrifluoroethane	76-13-1						0.75	0.57	0.6	0.57	0.65
1,2,4-Trichlorobenzene	120-82-1										
1,1,1-Trichloroethane	71-55-6										
Trichloroethene (TCE)	79-01-6									0.18	0.27
Trichlorofluoromethane (F-11)	75-69-4						1.0	1.1	1.2	1.0	1.7
1,3,5-Trimethylbenzene	108-67-8						0.58				
1,2,4-Trimethylbenzene	95-63-6						0.44	0.58	0.55	0.33	0.34
Vinyl Acetate	108-05-4								6.3	6.4	3.5
Vinylidene Chloride	75-35-4										
o-Xylene	95-47-6							0.63	0.50	0.25	0.26
m+p-Xylenes	106-42-3						1.1	0.95	0.76	0.67	0.78

CAS#: Chemical Abstract Service Registry Number; Each chemical has a unique CAS number which can be used to identify it.
µg/m³ : micrograms per cubic meter
Dark shading indicates that no sampling was conducted for that pollutant in that year

2.10.5 2002 NATA COMPARISON

The Whiting High School monitor was not active in 2002, so no comparison of 2002 NATA modeling to ToxWatch monitoring results was conducted.

2.10.6 CONCLUSIONS

The Whiting High School air toxics monitor is located in a relatively industrialized area of Northwest Indiana. It should be noted that monitoring at the Whiting High School monitor only began in 2004. This makes making comparisons with other ToxWatch monitors difficult. As with other monitors, only acrolein concentrations were monitored above non-carcinogenic thresholds. Issues with acrolein are not confined to Indiana. Recent research has revealed acrolein to be an issue across the country and IDEM is working with other states and U.S. EPA to address the issues with the pollutant.

While several carcinogenic pollutants exceeded a 1-in-1,000,000 risk level at the monitor, none of them exceeded EPA's 100-in-1,000,000 upper-end risk threshold. Unlike most other monitoring locations, the concentrations of air toxics measured at this location appear to be increasing for the most part. 65% of trends calculated at this monitor were increasing and 12% were decreasing. IDEM will continue monitoring pollutants at this location and look for ways to further reduce air toxics concentrations here and across the state.

SECTION 3.0

**TOXWATCH
POLLUTANT FACT SHEETS**

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By Synonym

TABLE OF CONTENTS (cont'd)
By Synonym

TABLE OF CONTENTS (cont'd)
By Synonym

3.0 INTRODUCTION

This section is meant to be usable as a single document or broken down into individual "fact sheets" that offer a basic overview of a specific pollutant and its role in Indiana's air quality. To that end, each pollutant has a two-page write-up that provides a detailed overview of all the pertinent information about the pollutant. Each fact sheet can be divided into 7 parts:

- **General Information** – This section provides basic information about the pollutant's characteristics (i.e. odor, flammability, etc), its sources (i.e. gasoline, cleaning solvents, etc), or any other interesting or useful information about the pollutant.
- **Pollutant Quickview** – This table provides a large amount of information in a very compact format. It allows the user to get a general overview of the pollutant without having to read any blocks of text. Information provided includes:
  - Pollutant – The name of the pollutant
  - CAS # - The Chemical Abstract Service number for the compound, each chemical is assigned a unique CAS number.
  - Synonyms – A list of other names that the pollutant may be called
  - RfC – Reference Concentrations are the concentrations at which exposure to a pollutant should not be expected to have any long-term non-carcinogenic health effects. This value is always reported in mg/m³ even though concentrations are usually reported in μg/m³. This convention is maintained in this report. The source of the reference concentration is reported in the box to its right.
    - O – OAQPS – Office of Air Quality Planning and Standards
    - I – IRIS – Integrated Risk Information Service
    - C – Cal/EPA – The California Environmental Protection Agency
    - A – ATSDR – Agency for Toxic Substances and Disease Registry
    - L – IDEM's Office of Land Quality
    - H – HEAST – Health Effects Assessment Summary Tables
    - ACGIH – American Conference of Industrial Hygienists
  - RfC Rank – This box helps the user gauge the relative toxicity of the compound compared to other pollutants in the study. The higher the rank, the more toxic the pollutant is relative to the other pollutants in the study. (i.e., a pollutant ranked #1 would be the most toxic pollutant from a non-carcinogenic standpoint)
  - Target System – This box lets the user know which part of the body is affected by long-term exposure to the pollutant.
  - IUR – Inhalation Unit Risks are the values used to gauge the carcinogenic potential of a pollutant. The higher the value, the more carcinogenic the compound is considered. The source of the IUR is presented in the box to its right.
    - O – OAQPS – Office of Air Quality Planning and Standards
    - I – IRIS – Integrated Risk Information Service
    - C – Cal/EPA – The California Environmental Protection Agency
    - L – IDEM's Office of Land Quality
  - IUR Rank – The same as the RfC Rank but instead ranks the pollutant based on its ability to cause cancer, compared to other compounds in the study.

- o WOE – U.S. EPA's weight of evidence ranking is a guide to how confident U.S. EPA is in the compounds ability to cause cancer
    - A – Known human carcinogen – studies of human exposure (usually due to occupational exposure) have shown the compound to cause cancer
    - B2 – Probable human carcinogen – studies in laboratory animals show a strong likelihood that the compound will cause cancer in humans
    - C – Possible human carcinogen – there is some evidence from animal studies that the compound may be carcinogenic to humans but the evidence in not sufficient to warrant a WOE of B2.
    - D – Not classifiable – The available studies were reviewed by U.S. EPA and it was determined that there was not enough information to say whether the compound causes cancer or not.
    - E – Non-carcinogenic to humans – The available data shows that the compound does not cause cancer in humans. Very few compounds receive this ranking. None of the compounds in this study has a WOE ranking of E.
  - o Mol. Weight – The molecular weight of the compound. This is needed to convert from units of ug/m³ to part per billion (ppb).
  - o Mol. Formula – The molecular formula of the compound.
  - o Valid Samples – The total number of samples taken (statewide) that were analyzed and determined by IDEM's laboratory to have valid results for the pollutant.
  - o Detection Rate – The percentage of valid samples taken statewide that had a quantifiable concentration of the pollutant.
  - o Priority – The priority category in which the compound has been placed. There are five prioritization categories, I through V. Category I contains pollutants that are of the greatest concern and Category V contains those which are of the least concern. See below for more information on how pollutants were placed in prioritization categories.
- Indiana Overview – This section provides analysis of information contained elsewhere in the fact sheet as well as additional information about the pollutant's effect on Indiana's air.
- Health and Trends – This section provides the hazard quotients and risk estimates for the pollutants that were calculated at each monitoring location. It also provides, when available, the overall concentration trend for the pollutant at each monitoring location. The number of valid samples and the detection rates are also provided to assist in assessing the validity of the other data.
- Yearly Concentration Data – This section provides, both in graph and table form, yearly concentration values for each monitoring location. These data can help to better assess trends for the pollutant as well as help identify abnormalities in the dataset.
- References – This section provides web links to sources used in the fact sheet.

Figure 1 - Fact Sheet Page 1

Benzene

3.3 Benzene

3.3.1 General Information

Benzene is a colorless liquid with a sweet odor. Benzene occurs naturally in the environment and is also manufactured for in... chemicals... ume. Benzene is highly volatile, flammable and slightly soluble in water. The primary use for benzene is the manufacture of other chemicals that in turn are used to make plastics, resins, nylons, lubricants, dyes, and pesticides. In addition to the industrial manufacture of benzene, natural sources of benzene include emissions from volcanoes, and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

General Information

Pollutant Quickview

Pollutant	RfC (mg/m3)	Source
Benzene	0.03	O(I)
CAS #	RfC Rank	Target System
71-43-2	10 of 53	Immunological
Synonyms	IUR (µg/m3)	Source
Benzol Coal Naphtha Cyclohexat... Phene Phenyl Hydride Polystream Pyrobenzol	...	O(I) ...CE A
	Mol. Weight	Mol. Formula
	78.11	C_6H_6
	Valid Samples	Detection Rate
	4341	91.87%
	Priority	
	I	

3.3.2 Benzene in Indiana

Benzene is one of the most significant cancer risk drivers in the state. It was found in more than 9 out of 10 samples taken statewide. While it is not one of the most potent carcinogens, only ranking 15th out of the 24 carcinogens in the study, its ubiquitous nature makes it a more significant concern. All mo... gden Dunes, have exceeded a 1 in 1,000,000 risk level for benz... cations exceeded the 1 in 100,000 risk level for benzene. No other carcinogen in the study posed as consistent a cancer risk as benzene.

Indiana Overview

EPA has classified benzene as a known human carcinogen, based on extensive studies of industrial workers exposed to benzene due to their jobs. These studies, along with numerous animal studies, have shown that benzene causes leukemia.

Trend analysis indicates that concentrations of benzene are steady or are slowly falling, with the exception of the Whiting High School monitoring location. Whiting High School's monitoring data shows a very slight increasing trend. Fortunately, Whiting High School also has one of the lowest risk estimates for benzene of any of the monitors. Table 3.3 and Figure 3.3 illustrate benzene concentrations over time at all ten ToxWatch monitors.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	92.45%	556	↔	0.03	7.0E-06
Fort Wayne CAAP	90.2%	306	↔	0.031	7.2E-06
Gary IITRI				0.077	1.8E-05
Gary Ivanhoe				0.031	7.3E-06
Hammond CAAP				0.047	1.1E-05
Ogden Dunes				0.0006	1.4E-07
Pierre Moran Sch...				0.037	8.6E-06
University of Evansville	92.48%	479	↘	0.04	9.4E-06
Washington Park	95.09%	591	↘	0.053	1.2E-05
Whiting High School	92.15%	331	↗	0.028	6.6E-06

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result; HQ = Hazard Quotient; RE = Risk Estimate

Health and Trends

Because of its carcinogenic nature, consistently high risk estimates, and ubiquitous nature, benzene has been placed in the highest priority category, Category I.

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Figure 2 - Fact Sheet Page 2

Benzene

Table 3.3 Yearly EPCs for Benzene

Monitoring Location	1999 ug/m³	2000 ug/m³	2001 ug/m³	2002 ug/m³	2003 ug/m³	2004 ug/m³	2005 ug/m³	2006 ug/m³	2007 ug/m³	2008 ug/m³
East Chicago	1.4	1	1.4	1.1	0.86	0.79	0.63	1.3	0.98	0.78
Fort Wayne CAAP					0.92	0.65	0.63	1.7	1	
Gary IITRI	2.7	4.2	4.3	1.8	3	2.5	3.6	3.3	2.3	2
Gary Ivanhoe	1	0.97	1.4	0.78	0.87					
Hammond CAAP	1.6	1.9	2.7	1.4	1.4	1.2	1.5	2	1.4	1.5
Ogden Dunes	0.81	0.74	1	0.88	0.65	0.63	0.61	1	0.3	0.62
Pierre Moran School	2.2	1.2	1.7	1	1	0.86	0.98	1.3	1.3	
University of Evansville	1.6	1.5	2.3	0.98	0.97	0.83	1	2.3	0.84	1.3
Washington Park	2.3	2.1	3	1.6	1.7	1.5	1.3	1.8	1.4	1.4
Whiting High School						0.73	0.86	1.2	1	0.84

Figure 3.3 Yearly EPCs for Benzene

Yearly Concentration Data

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.33 References

References

http://www.epa.gov/ttn/atw/hlth...
http://www.atsdr.cdc.gov/tfacts3.html

PRIORITIZATION

Several factors were considered when assigning a pollutant to a prioritization category. These factors include:

- Concentration trends
    - If concentrations appear to be increasing at one or more monitoring locations the pollutant likely ended up in category I or II.
    - If all trends were decreasing, this likely resulted in its placement in a lower category.
    - The inability to calculate a trend prevented the pollutant from being placed in category V.
- Risk Estimates
    - If the risk estimate for any monitoring location was in excess of 1 in 10,000, the pollutant was placed in category I.
    - One or more monitoring locations exceeding 1 in 100,000 likely resulted in the pollutant being placed in category I or II.
    - Any risk estimates in excess of 1 in 1,000,000 prevented the pollutant from being placed in category V.
    - If the detection rate was insufficient to calculate an exposure point concentration (EPC) and the median method detection limit (MDL) of the pollutant exceeded 1 in 1,000,000 risk, the pollutant was not likely to be placed in any category below III.
- Hazard Quotients
    - If any hazard quotient exceeded 10, the pollutant was placed in category I.
    - If one or more hazard quotients exceeded 1.0, the pollutant was likely to be placed in category I or II.
    - Any hazard quotient in excess of 0.1 will prevent the pollutant from being placed in category V.
    - If the detection rate was insufficient to calculate an EPC and the median MDL of the pollutant exceeded a hazard quotient of 1.0, the pollutant was not likely to be placed in any category below III. If the MDL exceeded a hazard quotient of 0.1, it was not eligible for category V.
- Carcinogenicity
    - All other factors being equal, a higher priority was placed on a known or suspected carcinogen.
- Toxicity
    - Pollutants may have shifted up or down a level due to being very high or very low on the toxicity or carcinogenicity scale.

There is room for professional judgment when assigning pollutants to prioritization categories. As such, some pollutants' prioritizations may not fit completely within this framework.

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3.1 ACETONE

3.1.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Acetone	31	A
CAS #	**RfC Rank**	**Target System**
67-64-1	52 of 53	Neurological
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Dimethylformaldehyde	N/A	-
Dimethylketal	**IUR Rank**	**WOE**
Dimethyl Ketone		
Ketone Propane	-	N/A
beta-Ketopropane	**Acute RfC (mg/m³)**	**Source**
Methyl Ketone		
Propanone		
2-Propanone	**Mol. Weight**	**Mol. Formula**
Pyroacetic Acid	58.08	C₃H₆O
Pyroacetic Ether	**Valid Samples**	**Detection Rate**
	3242	90.47%
	Priority	
	V	

Acetone is a manufactured chemical that is also found naturally in the environment. It is a colorless liquid with a distinct odor and taste. It evaporates easily, is flammable, and dissolves in water. The primary use for acetone is to make other chemicals that are then used to make plastics, fibers, and drugs. It is also used to dissolve other substances. It is present in automobile exhaust, forest fires, and tobacco smoke. It occurs naturally in plants, trees, volcanic gases, forest fires, and as a product of the breakdown of body fat. Industrial processes contribute more acetone to the environment than natural processes.

3.1.2 ACETONE IN INDIANA

Detections of acetone are a common occurrence at ToxWatch monitors across the state. It has been found in about 9 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate, and allows IDEM to have a high level of confidence in the conclusions drawn about acetone.

IRIS did not contain a reference concentration (RfC) for acetone. However, ATSDR had a chronic MRL for acetone and this value was used as the RfC for this study. The critical effect for acetone is neurological in nature.

Exposure concentrations calculated for acetone ranged from 8.4 µg/m³ to 62 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Gary IITRI monitor, represents a value 500 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for acetone at every monitoring location analyzed for this report. In addition, detection rates were sufficient to have high confidence in all reported trends. Concentration trends across the state appear to be decreasing for the most part.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	90%	387	↘	0.0003	
Fort Wayne CAAP	92%	254	↘	0.00032	
Gary IITRI	94%	402	↘	0.002	
Gary Ivanhoe	99%	84	↗	0.00032	
Hammond CAAP	78%	399	↘	0.00042	
Ogden Dunes	94%	392	↘	0.00027	
Pierre Moran School	95%	316	↘	0.00035	
University of Evansville	92%	355	↗	0.00045	
Washington Park	88%	377	↘	0.0003	
Whiting High School	91%	275	↔	0.00028	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the high detection rate, apparent decreasing trends, and relatively low exposure concentrations, acetone has been placed in the lowest prioritization category, Category V.

Table 3.1 Yearly EPCs for Acetone

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago				12	13	10	7.0	14	8.2	5.9
Fort Wayne CAAP					14	11	7.0	14	9.5	
Gary IITRI				11	370	9.9	11	18	9.0	5.5
Gary Ivanhoe				10	11					
Hammond CAAP				26	13	8.3	12	27	14	6.0
Ogden Dunes				9.2	14	8.5	7.5	12	9.0	4.8
Pierre Moran School				12	15	11	9.6	16	7.7	
University of Evansville				12	14	9.8	10	17	12	32
Washington Park				13	15	9.9	7.5	14	9.2	5.6
Whiting High School						11	7.6	14	8.4	7.9

Figure 3.1 Yearly EPCs for Acetone
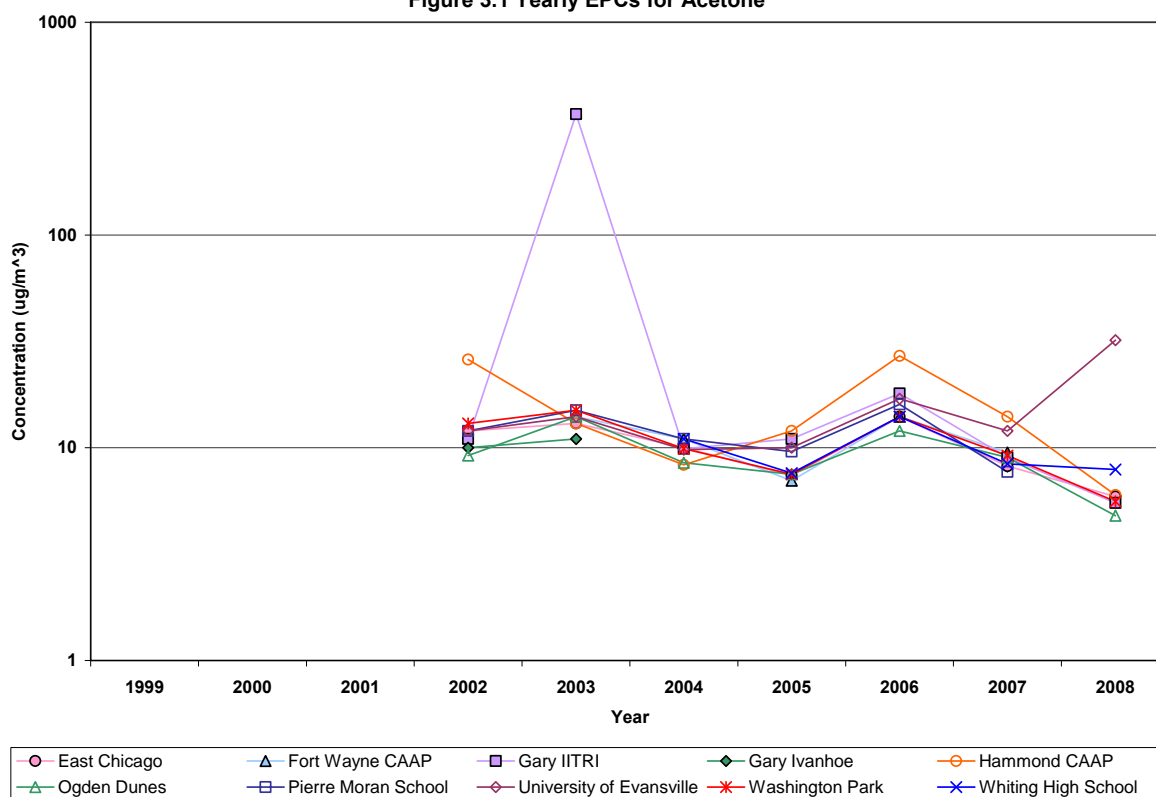
NOTE: Because of the widely differing values at the Gary IITRI monitor in 2003, Acetone's graph has been presented in a log scale.

3.1.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts21.html
http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=1
http://www.atsdr.cdc.gov/toxprofiles/phs21.html

3.2 ACROLEIN

3.2.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Acrolein	0.00002	O(I)
CAS #	**RfC Rank**	**Target System**
107-02-8	1 of 53	Respiratory
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Acralaldehyde	N/A	-
Acrylaldehyde	**IUR Rank**	**WOE**
Allyl Aldehyde		
Ethylene Aldehyde	-	N/A
Propenal	**Acute RfC (mg/m³)**	**Source**
Prop-2-En-L-Al		
2-Propenal	0.0069	O(A)
	Mol. Weight	**Mol. Formula**
	56.06	C_3H_4O
	Valid Samples	**Detection Rate**
	1013	88.5%
	Priority	
	I	

Acrolein is a colorless or yellow liquid with a pungent odor. It occurs naturally in the environment and is also manufactured for industrial use. Acrolein is highly volatile, flammable, and water-soluble. Acrolein is not a persistent compound in the air, having a half-life of one day. The primary use for acrolein is as an aquatic herbicide/pesticide as well as the manufacture of other chemicals such as acrylic acid. In addition to the industrial manufacture of acrolein, small amounts of the pollutant can be produced when trees, tobacco, gasoline, and oil are burned.

3.2.2 ACROLEIN IN INDIANA

Acrolein is the only pollutant that has the potential to be a concern from a non-carcinogenic (non-cancer causing) standpoint. It is detected in nearly 9 out of 10 samples and has a median detection limit approximately 10-times the health protective level. Yearly exposure point concentrations (EPCs) range from as low as 1.2 µg/m³ (HQ=60) at Ogden Dunes in 2008, to as high as 2.5 µg/m³ (HQ=130) at Hammond CAAP in 2007. Looking purely at reference concentrations (RfCs), acrolein appears to be the most toxic non-carcinogen in the ToxWatch study. Several issues were encountered when analyzing data for acrolein. Please see Section 1.0 of the ToxWatch Report for more information about acrolein.

The RfC for acrolein was found in IRIS. The critical effect for acrolein is respiratory in nature. U.S. EPA has assessed the data related to acrolein and found it inadequate to make a determination of carcinogenicity. No other source in the toxicity hierarchy contained an inhalation unit risk (IUR) for the pollutant.

Acrolein was only added to the analyte list for the ToxWatch program in July 2006. As such, there is not enough data to draw any strong conclusions about overall trends in acrolein concentrations across the state. Table 3.2 and Figure 3.2 illustrate acrolein concentrations over time at all ten ToxWatch monitors.

Based on the relatively short time it has been monitored, the extremely low reference concentration, and the extremely high hazard quotient, acrolein has been placed in the highest priority category, Category I.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	84%	120	↔	100	
Fort Wayne CAAP	90%	68	↘	87	
Gary IITRI	88%	130	↘	85	
Gary Ivanhoe	0%	0			
Hammond CAAP	93%	129	↘	130	
Ogden Dunes	85%	130	↘	72	
Pierre Moran School	88%	65	↔	110	
University of Evansville	84%	118	↔	79	
Washington Park	91%	121	↔	110	
Whiting High School	93%	132	↔	110	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.2 Yearly EPCs for Acrolein

Monitoring Location	1999 ug/m³	2000 ug/m³	2001 ug/m³	2002 ug/m³	2003 ug/m³	2004 ug/m³	2005 ug/m³	2006 ug/m³	2007 ug/m³	2008 ug/m³
East Chicago								3.6	1.9	2.0
Fort Wayne CAAP								2.3	1.6	
Gary IITRI								2.0	1.9	1.9
Gary Ivanhoe										
Hammond CAAP								5.3	3.2	1.5
Ogden Dunes								2.2	1.7	1.2
Pierre Moran School								2.8	2.3	
University of Evansville								2.4	2	1.4
Washington Park								3.0	2.5	2.3
Whiting High School								4.0	1.6	2.8

Figure 3.2 Yearly EPCs for Acrolein

3.2.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/acrolein.html
http://www.atsdr.cdc.gov/tfacts124.html

3.3 BENZENE

3.3.1 GENERAL INFORMATION

Benzene is a colorless liquid with a sweet odor. It occurs naturally in the environment and is also manufactured for industrial use, ranking in the top twenty chemicals for production volume. Benzene is highly volatile, flammable, and slightly soluble in water. The primary use for benzene is the manufacture of other chemicals that, in turn, are used to make plastics, resins, nylons, lubricants, dyes, and pesticides.

Pollutant	RfC (mg/m^3)	Source
Benzene	0.03	O(I)
CAS #	**RfC Rank**	**Target System**
71-43-2	10 of 53	Immunological
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Benzol	7.8x10^{-6}	O(I)
Coal Naphtha	**IUR Rank**	**WOE**
Cyclohexatriene		
Phene	15 of 24	A
Phenyl Hydride	**Acute RfC (mg/m^3)**	**Source**
Polystream	0.029	O(A)
Pyrobenzol	**Mol. Weight**	**Mol. Formula**
	78.11	C_6H_6
	Valid Samples	**Detection Rate**
	4341	91.87%
	Priority	
	I	

In addition to the industrial manufacture of benzene, natural sources of benzene include emissions from volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, coke oven gas, and cigarette smoke.

3.3.2 BENZENE IN INDIANA

Benzene is one of the most significant cancer risk drivers in the state. It was found in more than 9 out of 10 samples taken statewide. While it is not one of the most potent carcinogens, only ranking 15th out of the 24 carcinogens in the study, its ubiquitous nature makes it a more significant concern. All monitoring locations, except for Ogden Dunes, have exceeded a 1-in-1,000,000 risk level for benzene. Three of the monitoring locations exceeded 1 in 100,000 risk level for benzene. No other carcinogen in the study posed as consistent a cancer risk as benzene.

U.S. EPA has classified benzene as a known human carcinogen, based on extensive studies of industrial workers exposed to benzene due to their jobs. These studies, along with numerous animal studies, have shown that benzene causes leukemia.

Trend analysis indicates that concentrations of benzene are steady or are slowly falling, with the exceptions of the Whiting High School and Fort Wayne CAAP monitoring locations. These monitors both show slightly increasing trends in benzene concentrations. Table 3.3 and Figure 3.3 illustrate benzene concentrations over time at all ten ToxWatch monitors.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	92%	504	↘	0.031	7.2x10^{-6}
Fort Wayne CAAP	89%	254	↗	0.031	7.3x10^{-6}
Gary IITRI	93%	541	↔	0.08	1.9x10^{-5}
Gary Ivanhoe	94%	206	↔	0.032	7.5x10^{-6}
Hammond CAAP	95%	547	↔	0.05	1.2x10^{-5}
Ogden Dunes	87%	557	↘	0.0037	8.6x10^{-7}
Pierre Moran School	91%	445	↘	0.037	8.6x10^{-6}
University of Evansville	92%	479	↘	0.04	9.4x10^{-6}
Washington Park	95%	532	↘	0.053	1.2x10^{-5}
Whiting High School	91%	275	↗	0.029	6.8x10^{-6}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Because of its carcinogenic nature, consistently high risk estimates, and ubiquitous nature, benzene has been placed in the highest priority category, Category I.

Table 3.3 Yearly EPCs for Benzene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago	1.4	1.0	1.4	1.1	0.86	0.79	0.63	1.3	0.98	0.78
Fort Wayne CAAP					0.92	0.65	0.63	1.7	1.0	
Gary IITRI	2.7	4.2	4.3	1.8	3.0	2.5	3.6	3.3	2.3	2.0
Gary Ivanhoe	1.0	0.97	1.4	0.78	0.87					
Hammond CAAP	1.6	1.9	2.7	1.4	1.4	1.2	1.5	2.0	1.4	1.5
Ogden Dunes	0.81	0.74	1.0	0.88	0.65	0.63	0.61	1.0	0.3	0.62
Pierre Moran School	2.2	1.2	1.7	1.0	1.0	0.86	0.98	1.3	1.3	
University of Evansville	1.6	1.5	2.3	0.98	0.97	0.83	1.0	2.3	0.84	1.3
Washington Park	2.3	2.1	3.0	1.6	1.7	1.5	1.3	1.8	1.4	1.4
Whiting High School						0.73	0.86	1.2	1.0	0.84

Figure 3.3 Yearly EPCs for Benzene

3.3.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/benzene.html
http://www.atsdr.cdc.gov/tfacts3.html

3.4 BENZYL CHLORIDE

3.4.1 GENERAL INFORMATION

Benzyl chloride is a colorless or slightly yellow liquid with a pungent, irritating odor. Benzyl chloride is used in the manufacture of dyes, pharmaceutical products, and as a photographic developer. Benzyl chloride has also been used as an irritant gas in chemical warfare. Benzyl chloride has been detected in emissions from the burning of polyvinyl chloride and neoprene. Benzyl chloride is also released during the manufacture of floor tiles.

Pollutant	RfC (mg/m^3)	Source
Benzyl Chloride	0.00066	ACGIH
CAS #	RfC Rank	Target System
100-44-7	2 of 53	-
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
Chloromethylbenzene Chlorophenylmethane alpha-Chlorotoluene omega-Chlorotoluene	4.9x10^{-5}	O(C)
	IUR Rank	WOE
	3 of 24	B2
	Acute RfC (mg/m^3)	Source
	Mol. Weight	Mol. Formula
	126.59	C_7H_7Cl
	Valid Samples	Detection Rate
	3242	8.88%
	Priority	
	II	

3.4.2 BENZYL CHLORIDE IN INDIANA

It is difficult to estimate the risk associated with benzyl chloride. When the data is examined, it reveals that nearly all samples for benzyl chloride were below method detection limits (MDLs) until the later half of 2004. At that point, concentrations across the state seem to spike and remain relatively high until near the end of 2005. Examination of the yearly MDLs for benzyl chloride show a large increase in the the MDL for the pollutant in 2005, to the point where many of the reported detections are below the reported MDL. These pieces of information seem to indicate that some sort of laboratory error may be to blame for the apparent sharp increase in benzyl chloride in 2004-2005 and the subsequent large risks/hazards associated with the compound. IDEM's laboratory was contacted about the apparent discrepancy but was unable to comment beyond stating that the equipment appeared to be operating correctly during that time period.

Beyond the possible problems with the sampling data, benzyl chloride also suffers from a median MDL that is associated with a risk in excess of 1 in 100,000. This means that no amount of sampling at current MDLs could definitively determine whether benzyl chloride poses an unacceptable risk to human health. Table 3.4 and Figure 3.4 illustrate benzyl chloride concentrations over time at all ten ToxWatch monitors.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	8.3%	387		0.85	2.7x10^{-5}
Fort Wayne CAAP	12%	254		0.91	2.9x10^{-5}
Gary IITRI	7%	402			
Gary Ivanhoe	1.2%	84			
Hammond CAAP	8.5%	399		1	3.2x10^{-5}
Ogden Dunes	4.3%	392			
Pierre Moran School	11%	316		0.95	3.1x10^{-5}
University of Evansville	8.7%	355		0.89	2.9x10^{-5}
Washington Park	12%	377		1	3.4x10^{-5}
Whiting High School	12%	275		0.97	3.1x10^{-5}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the uncertainty in the monitoring data, high MDLs, and high level of toxicity from both a carcinogenic and non-carcinogenic standpoint, benzyl chloride has been placed in the second highest prioritization category, Category II.

Table 3.4 Yearly EPCs for Benzyl Chloride

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago						0.74	1.3			
Fort Wayne CAAP						0.67	1.3			
Gary IITRI						0.55	1.5			
Gary Ivanhoe										
Hammond CAAP						0.79	1.9			
Ogden Dunes						0.56	0.8			
Pierre Moran School						0.64	1.7			
University of Evansville						0.76	1.7			
Washington Park				0.58		0.99	2.2			
Whiting High School						0.78	1.8			

Figure 3.4 Yearly EPCs for Benzyl Chloride
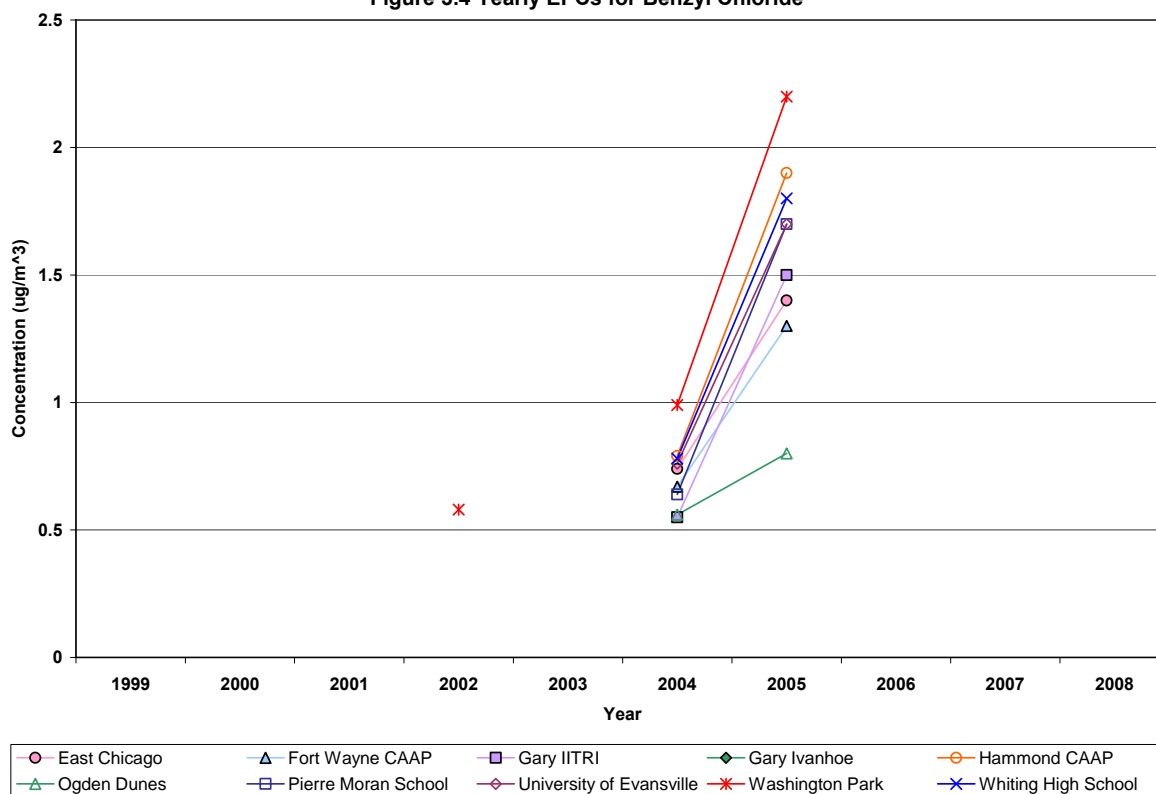
3.4.3   REFERENCES

http://www.osha.gov/dts/chemicalsampling/data/CH_220500.html
http://www.epa.gov/ttn/atw/hlthef/benzylch.html

3.5 BROMODICHLOROMETHANE

3.5.1 GENERAL INFORMATION

Bromodichloromethane is a colorless, nonflammable liquid and is only slightly soluble in water. The primary use for bromodichloromethane is to make other chemicals. Only small amounts of bromodichloromethane are manufactured. Most bromodichloromethane is formed as a by-product when chlorine is added to drinking water to kill bacteria. Bromodichloromethane is also produced by algae in the oceans.

Pollutant	RfC (mg/m³)	Source
Bromodichloromethane	N/A	-
CAS #	**RfC Rank**	**Target System**
75-27-4	-	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Dichlorobromomethane	3.7×10^{-5}	C
Dichloromonobromomethane	**IUR Rank**	**WOE**
Monobromodichloromethane	4 of 24	B2
	Acute RfC (mg/m³)	**SourceCl2**
	Mol. Weight	**Mol. Formula**
	163.83	$CHBrCl_2$
	Valid Samples	**Detection Rate**
	2386	0.08%
	Priority	
	II	

3.5.2 BROMODICHLOROMETHANE IN INDIANA

Bromodichloromethane has a very low detection rate statewide. In fact, it has only been detected in 2 of the 2,386 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about bromodichloromethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for bromodichloromethane. No other source in the toxicity heirarchy had a RfC available. U.S. EPA's weight of evidence (WOE) classification of bromodichloromethane places it in Category B2. This means that bromodichloromethane is a probable human carcinogen based on adequate animal test data, but U.S. EPA has not derived an inhalation unit risk for the pollutant. However, Cal/EPA contained an inhalation unit risk (IUR) for bromodichloromethane and this value was used in this study.

Detection rates for bromodichloromethane were insufficient to calculate exposure concentrations for any of the monitoring locations. The median MDL corresponds to an increased cancer risk of 12 in 1,000,000. This is well above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	275			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	289			
Gary Ivanhoe	0%	0			
Hammond CAAP	0.69%	289			
Ogden Dunes	0%	280			
Pierre Moran School	0%	219			
University of Evansville	0%	259			
Washington Park	0%	274			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for bromodichloromethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in bromodichloromethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, bromodichloromethane has been placed in the second highest prioritization category, Category II.

Table 3.5 Yearly EPCs for Bromodichloromethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.5 Yearly EPCs for Bromodichloromethane

3.5.3   REFERENCES

http://www.atsdr.cdc.gov/tfacts129.html
http://www.epa.gov/iris/subst/0213.htm

3.6 BROMOFORM

3.6.1 GENERAL INFORMATION

Bromoform is a colorless to pale yellow liquid with a sweet odor. Bromoform is slightly soluble in water and is nonflammable. Small amounts of bromoform are created naturally by plants in the ocean. Most bromoform, however, is created as a byproduct when chlorine is added to drinking water to kill bacteria.

Pollutant	RfC (mg/m³)	Source
Bromoform	N/A	-
CAS #	RfC Rank	Target System
75-25-2	-	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
Methenyl Tribromide Tribromomethane	1.1×10^{-6}	O(I)
	IUR Rank	WOE
	22 of 24	B2
	Acute RfC (mg/m³)	Source3
	Mol. Weight	Mol. Formula
	252.73	$CHBr_3$
	Valid Samples	Detection Rate
	2386	0.04%
	Priority	
	III	

3.6.2 BROMOFORM IN INDIANA

Bromoform has a very low detection rate statewide. In fact, it has only been detected in 1 of the 2,386 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about bromoform's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for bromoform and no other source in the toxicity heirarchy had a RfC available. As such, the critical effect for bromoform could not be determined. U.S. EPA's weight of evidence (WOE) classification of bromoform places it in Category B2. This means that bromoform is a probable human carcinogen based on adequate animal test data.

Unlike most other carcinogens within the study, bromoform has a median MDL which corresponds to a risk level slightly less than 1 in 1,000,000. This means that, by U.S. EPA standards, bromoform is not likely to pose a significant risk of cancer to humans from inhalation. Unfortunately, an adequate reference concentration could not be found, so no assumptions can be made about potential non-carcinogenic effects caused by exposure to bromoform.

Detection rates for bromoform were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in bromoform concentrations over time has been conducted.

It does not appear that bromoform currently poses a significant risk to human health. However, since no RfC could be obtained, and there is insufficient data to determine whether concentrations in Indiana are increasing or decreasing, bromoform has been placed in the middle prioritization category, Category III.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	275			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	289			
Gary Ivanhoe	0%	0			
Hammond CAAP	0.35%	289			
Ogden Dunes	0%	280			
Pierre Moran School	0%	219			
University of Evansville	0%	259			
Washington Park	0%	274			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.6 Yearly EPCs for Bromoform

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

N/A

Figure 3.6 Yearly EPCs for Bromoform

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.6.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/bromofor.html
http://www.atsdr.cdc.gov/tfacts130.html

3.7   BROMOMETHANE

3.7.1   GENERAL INFORMATION

Bromomethane, also known as methyl bromide, is a colorless, nonflammable gas without a distinct odor. Small amounts of bromomethane are created naturally by plants in the ocean. Most bromomethane, however, is manufactured and used as a pesticide to be used in homes, foods, and soils.

Pollutant	RfC (mg/m³)	Source
Bromomethane	0.005	O(I)
CAS #	**RfC Rank**	**Target System**
74-83-9	5 of 53	Respiratory
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Methyl Bromide Monobromomethane	N/A	-
	IUR Rank	**WOE**
	-	D
	Acute RfC (mg/m³)	**Source**
	0.19	O(A)
	Mol. Weight	**Mol. Formula**
	94.94	CH₃Br
	Valid Samples	**Detection Rate**
	4067	16.67%
	Priority	
	III	

3.7.2   BROMOMETHANE IN INDIANA

Detections of bromomethane are a moderately common occurrence at ToxWatch monitors. It has been detected in about 17% of the 4,067 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for bromomethane was found in IRIS. U.S. EPA has high confidence in this RfC. The critical effect for bromomethane is respiratory in nature. U.S. EPA's weight of evidence (WOE) classification of bromomethane places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of bromomethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for bromomethane ranged from 0.28 µg/m³ to 1.0 µg/m³. The high end of this range is approaching levels that could pose a hazard to human health. The highest exposure concentration, calculated for the University of Evansville monitor, is only 5 times lower than health protective levels.

Concentration trend analysis was only possible for the Whiting High School monitor. However, this monitoring location had insufficient detection rates to place high confidence on the trend analysis that was performed. As such, no strong conclusions can be drawn about concentration trends for bromomethane, even at the Whiting High School monitoring location.

Due to the low detection rate, lack of complete and reliable trend data, and relatively high exposure concentrations, bromomethane has been placed in the middle prioritization category, Category III.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	17%	475		0.066	
Fort Wayne CAAP	23%	254		0.11	
Gary IITRI	18%	504		0.082	
Gary Ivanhoe	0.53%	189			
Hammond CAAP	16%	502		0.1	
Ogden Dunes	17%	509		0.06	
Pierre Moran School	15%	413		0.1	
University of Evansville	16%	455		0.2	
Washington Park	16%	490		0.056	
Whiting High School	26%	275	↘	0.076	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.7 Yearly EPCs for Bromomethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago						0.58	0.57	0.66		0.32
Fort Wayne CAAP					0.48	0.53	0.57	0.74		
Gary IITRI					0.44	0.59	0.6	1.6		0.33
Gary Ivanhoe										
Hammond CAAP						0.6	0.61	0.57		0.33
Ogden Dunes						0.57	0.57	0.65		0.3
Pierre Moran School						0.56	0.63	0.71		
University of Evansville						0.56	0.6	7.5		0.37
Washington Park						0.54	0.56	0.61		0.31
Whiting High School						0.57	0.65	0.6		0.3

Figure 3.7 Yearly EPCs for Bromomethane

3.7.3 REFERENCES

http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=160
http://www.atsdr.cdc.gov/toxprofiles/phs27.html
http://www.atsdr.cdc.gov/tfacts27.html

3.8   1,3-BUTADIENE

3.8.1   GENERAL INFORMATION

1,3-Butadiene is a colorless gas with a mild gasoline-like odor and is extremely flammable. 1,3-Butadiene is primarily used to manufacture synthetic rubber products such as styrene and neoprene. 1,3-Butadiene is also used in the manufacture of tires, hoses, gaskets, and nylon carpet. When exposed to sunlight, 1,3-butadiene quickly breaks down, having a half-life of about two hours. Most 1,3-butadiene is man-made for use in manufacturing. Other sources of 1,3-butadiene include motor vehicle exhaust and cigarette smoke.

Pollutant	RfC (mg/m^3)	Source
1,3-Butadiene	0.002	O(I)
CAS #	RfC Rank	Target System
106-99-0	3 of 53	Reproductive
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
Biethylene	3×10^{-5}	O(I)
Bivinyl	IUR Rank	WOE
Butadieen		
Buta-1,3-Dieen	5 of 24	N/A
Butadien	Acute RfC (mg/m^3)	Source
Buta-1,3-Dien		
Butadiene		
Vinylethylene	Mol. Weight	Mol. Formula
	54.09	C_4H_6
	Valid Samples	Detection Rate
	3242	7.53%
	Priority	
	II	

3.8.2   1,3-BUTADIENE IN INDIANA

While the overall detection rate for 1,3-butadiene was only 7.5%, the detection rates for individual monitoring locations vary from less than 1% at the Fort Wayne CAAP monitor up to 13% at the Washington Park monitoring location.

Despite the widely varying detection rates observed at different monitoring locations, the risk estimates calculated for the different monitoring locations are very similar. They ranged from 3 in 1,000,000 at Ogden Dunes to 4.8 in 1,000,000 at Hammond CAAP. These risk estimates are very close to the risk estimates associated with 1,3-butadiene's MDLs. This relationship could indicate that 1,3-butadiene concentrations are consistently just below detection limits.

Hazard quotients calculated for 1,3-butadiene ranged from 0.06 to 0.08, well below the levels at which the reproductive problems associated with 1,3-butatdiene might begin to be of concern. Carcinogenic effects are of a much greater concern than non-carcinogenic effects when dealing with 1,3-butadiene exposure.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	8.3%	387		0.055	3.3×10^{-6}
Fort Wayne CAAP	0.39%	254			
Gary IITRI	6.5%	402			
Gary Ivanhoe	0%	84			
Hammond CAAP	11%	399		0.08	4.8×10^{-6}
Ogden Dunes	4.8%	392			
Pierre Moran School	2.5%	316			
University of Evansville	9.9%	355		0.065	3.9×10^{-6}
Washington Park	13%	377		0.075	4.5×10^{-6}
Whiting High School	12%	275		0.06	3.6×10^{-6}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

The lack of sufficient detection rates made the calculation of concentration trends impossible for 1,3-butadiene.

Due to the lack of concentration trends, relatively high carcinogenic potential, relatively high MDLs, and risk estimates in excess of 1-in-1,000,000, 1,3-butadiene has been placed in the second highest prioritization category, Category II.

Table 3.8 Yearly EPCs for 1,3-Butadiene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										0.14
Fort Wayne CAAP										
Gary IITRI										0.13
Gary Ivanhoe										
Hammond CAAP									0.62	0.18
Ogden Dunes										0.12
Pierre Moran School										
University of Evansville									0.21	0.16
Washington Park					1.1				0.22	0.16
Whiting High School										0.20

Figure 3.8 Yearly EPCs for 1,3-Butadiene

3.8.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/butadien.html
http://www.osha.gov/SLTC/butadiene/healtheffects.html
http://www.atsdr.cdc.gov/tfacts28.html
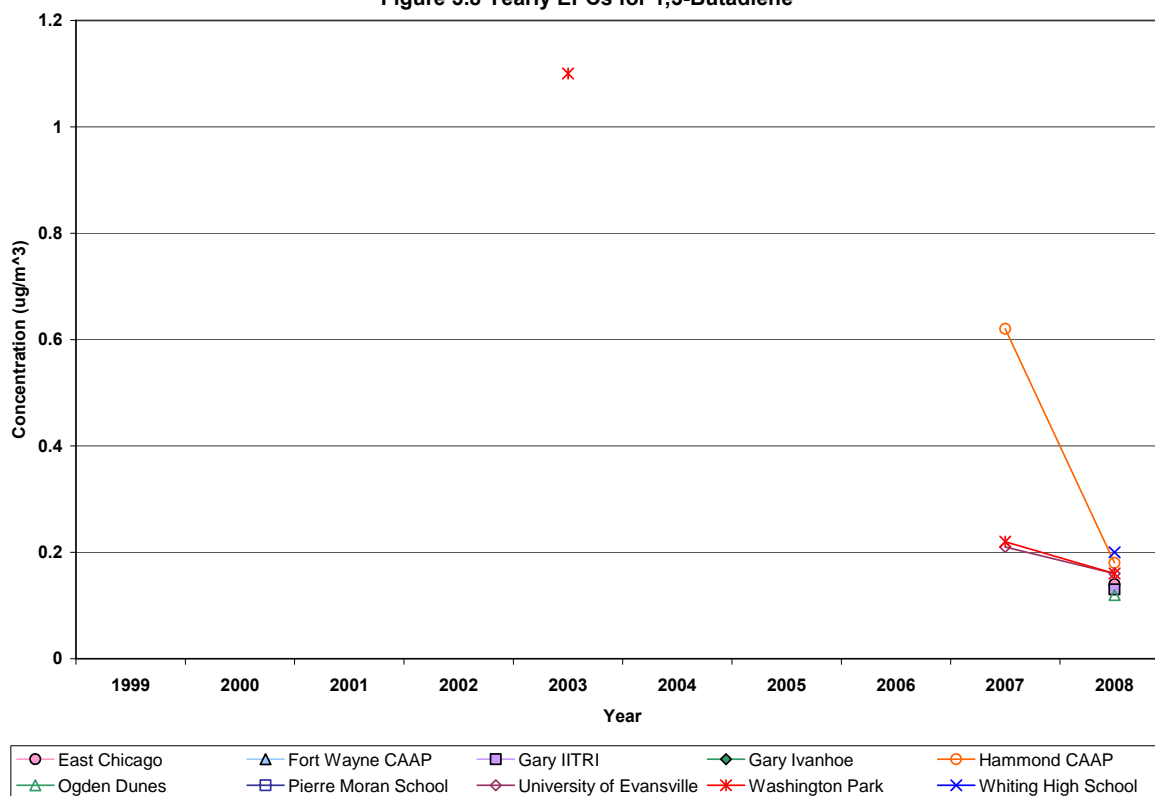
3.9   CARBON DISULFIDE

3.9.1   GENERAL INFORMATION

Pure carbon disulfide is a colorless liquid with a sweet pleasant odor. Industrial carbon disulfide is yellowish in color and has an unpleasant rotten-egg odor. Carbon disulfide is not very soluble in water and is both very volatile and flammable. Carbon disulfide is predominantly used in the manufacture of rayon, cellophane, and carbon tetrachloride. Most carbon disulfide enters the environment through manufacturing processes; however small amounts are also emitted from volcanoes and marshes.

Pollutant	RfC (mg/m^3)	Source
Carbon Disulfide	0.7	O(I)
CAS #	RfC Rank	Target System
75-15-0	32 of 53	Neurological
Synonyms	IUR ((μg/m^3)$^{-1}$)	Source
Carbon Bisulfide	N/A	-
Carbon Sulfide	IUR Rank	WOE
Dithiocarbonic Anhydride	-	N/A
	Acute RfC (mg/m^3)	Source
	Mol. Weight	Mol. Formula
	76.13	CS$_2$
	Valid Samples	Detection Rate
	3242	13.54%
	Priority	
	IV	

3.9.2   CARBON DISULFIDE IN INDIANA

Carbon disulfide is not a commonly detected pollutant in Indiana's air. It has only been detected in about 14% of the 3,242 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

Carbon disulfide's median MDL represents a hazard quotient of 0.0002, or 5,000 times below the health protective level. This extremely low MDL offers a great deal of comfort is assessing the overall hazard to human health posed by carbon disulfide, despite the relatively low detection rate.

Carbon disulfide's low detection rate prevents any conclusions from being drawn about concentration trends at any monitoring locations. The highest detection rate occurred at thte Whiting High School monitoring location. Closer examination shows that this increased detection rate is due to what appears to be a unique event. From 4/30/2008 through 9/9/2008 carbon disulfide concentrations spiked from non-detections to 30 to 60 μg/m³. After 9/9/2008 concentrations returned to non-detect levels. No other similar events have occurred during the course of ToxWatch monitoring.

Due to the extremely low MDL, extremely low calculated hazard quotients, relatively low toxicity, and inability to calculate trends, carbon disulfide has been placed in the second lowest prioritization category, Category IV.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	12%	387		0.00029	
Fort Wayne CAAP	8.7%	254		0.00033	
Gary IITRI	13%	402		0.00073	
Gary Ivanhoe	13%	84		0.00079	
Hammond CAAP	17%	399		0.00074	
Ogden Dunes	9.9%	392		0.00066	
Pierre Moran School	16%	316		0.00071	
University of Evansville	11%	355		0.00031	
Washington Park	14%	377		0.00047	
Whiting High School	21%	275		0.0061	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.9 Yearly EPCs for Carbon Disulfide

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago					0.64				0.19	0.21
Fort Wayne CAAP					0.94				0.17	
Gary IITRI					6.8	1.6			0.20	
Gary Ivanhoe				0.58						
Hammond CAAP							0.62	0.75	0.44	2.1
Ogden Dunes				3.1	0.67				0.17	0.20
Pierre Moran School				1.3				2.0	0.17	
University of Evansville									0.19	0.37
Washington Park				1.4					0.17	0.47
Whiting High School									0.20	19

Figure 3.9 Yearly EPCs for Carbon Disulfide

3.9.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/carbondi.html
http://www.atsdr.cdc.gov/tfacts82.html

3.10 CARBON TETRACHLORIDE

3.10.1 GENERAL INFORMATION

Carbon tetrachloride is a manufactured chemical that does not occur naturally. It is a clear, nonflammable liquid. It has a sweet odor and is almost insoluble in water. Most carbon tetrachloride is used in chemical processes; therefore most releases to the environment come from the manufacturing sector. However carbon tetrachloride is also a common indoor pollutant where sources of exposure come primarily from cleaning products.

Pollutant	RfC (mg/m³)	Source
Carbon Tetrachloride	0.19	O(A)
CAS #	RfC Rank	Target System
56-23-5	21 of 53	Hepatic
Synonyms	IUR ((µg/m³)⁻¹)	Source
Benzinoform	1.5×10^{-5}	O(I)
Carbona	IUR Rank	WOE
Carbon Chloride		
Freon 10	12 of 24	B2
Methane Tetrachloride	Acute RfC (mg/m³)	Source
Perchloromethane		
	Mol. Weight	Mol. Formula
	153.82	CCl_4
	Valid Samples	Detection Rate
	3211	11.15%
	Priority	
	III	

3.10.2 CARBON TETRACHLORIDE IN INDIANA

Carbon tetrachloride is not a commonly detected pollutant in Indiana's air. It has only been detected in about 11% of the 3,211 valid samples analyzed for the pollutant. Throughout most of the study period there have been insufficient detection rates to calculate accurate exposure concentrations. This changed in 2007, when the number of detections rose sharply. This does not indicate an increase in carbon tetrachloride levels across the state, but rather is a result of decreasing method detection limits (MDLs) for carbon tetrachloride starting in 2007.

IRIS did not contain a reference concentration (RfC) for carbon tetrachloride. However, ATSDR had a chronic minimal risk level (MRL) for carbon tetrachloride and this value was used as the RfC for this study. The critical effect for carbon tetrachloride is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of carbon tetrachloride places it in Category B2. This means that carbon tetrachloride is a probable human carcinogen based on adequate animal test data.

Exposure concentrations calculated for carbon tetrachloride ranged from 0.25 µg/m³ to 0.28 µg/m³. These concentrations result in risk estimates slightly above the 1 in a 1,000,000 level set by U.S. EPA.

Detection rates for carbon tetrachloride were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in carbon tetrachloride concentrations over time has been conducted.

Due to the low detection rate, lack of trend data, and relatively low exposure concentrations, carbon tetrachloride has been placed in the middle prioritization

| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	10%	363		0.0013	3.8×10^{-6}
Fort Wayne CAAP	14%	226		0.0013	3.6×10^{-6}
Gary IITRI	12%	391		0.0014	4.0×10^{-6}
Gary Ivanhoe	0.95%	105			
Hammond CAAP	9.9%	392		0.0014	4.0×10^{-6}
Ogden Dunes	11%	397		0.0013	3.6×10^{-6}
Pierre Moran School	10%	316		0.0013	3.8×10^{-6}
University of Evansville	11%	359		0.0015	4.4×10^{-6}
Washington Park	10%	387		0.0013	3.8×10^{-6}
Whiting High School	18%	275		0.0013	3.6×10^{-6}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

category, Category III.

Table 3.10 Yearly EPCs for Carbon Tetrachloride

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.33	
Fort Wayne CAAP									0.33	
Gary IITRI									0.33	0.34
Gary Ivanhoe										
Hammond CAAP									0.59	
Ogden Dunes									0.32	0.34
Pierre Moran School									0.33	
University of Evansville									0.32	0.35
Washington Park									0.33	0.34
Whiting High School									0.34	0.33

Figure 3.10 Yearly EPCs for Carbon Tetrachloride

3.10.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/carbonte.html
http://www.atsdr.cdc.gov/tfacts30.html
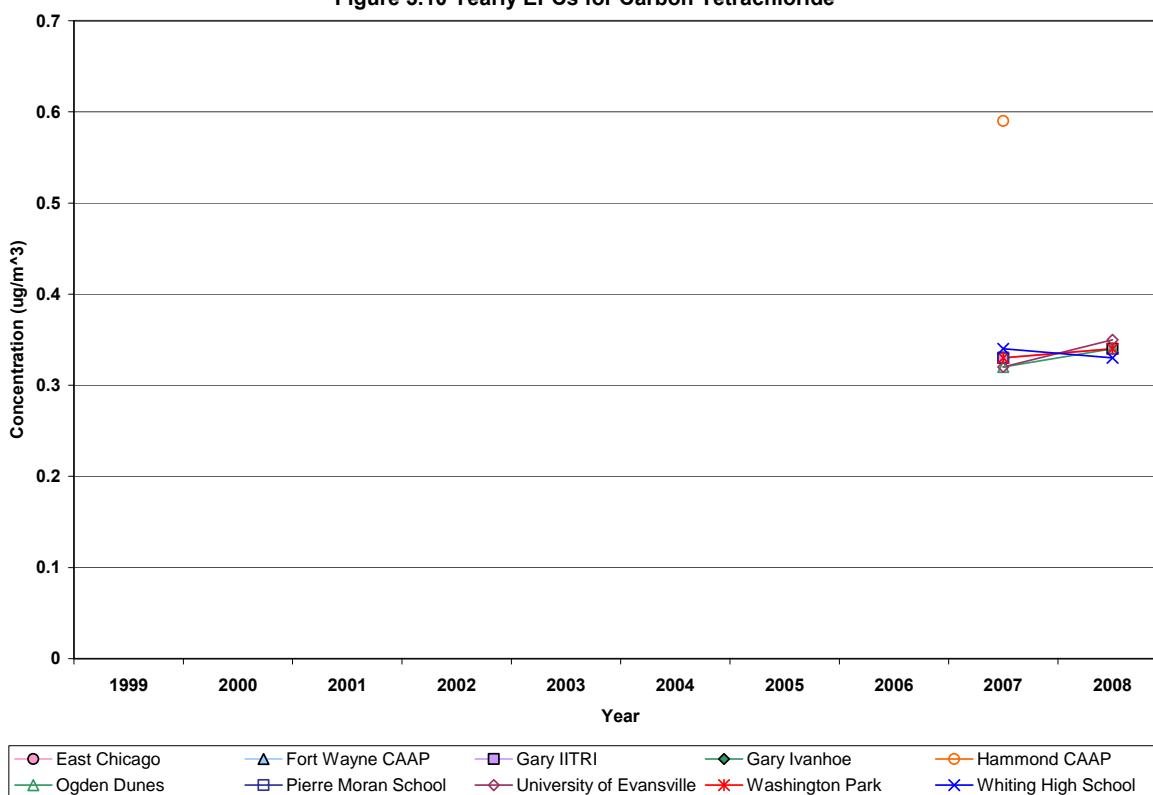
3.11 CHLOROBENZENE

3.11.1 GENERAL INFORMATION

Chlorobenzene is a manufactured chemical that does not occur naturally. It is a colorless, flammable liquid with an almond-like odor and is only slightly soluble in water. The primary uses of chlorobenzene are as a solvent for pesticide manufacturing and degreasing automobile parts. Chlorobenzene is released to the atmosphere from factories that manufacture it or use it.

Pollutant	RfC (mg/m^3)	Source
Chlorobenzene	1	O(C)
CAS #	**RfC Rank**	**Target System**
108-90-7	36 of 53	Alimentary
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Benzene Chloride	N/A	-
Chlorbenzol	**IUR Rank**	**WOE**
Monochlorbenzene		
Phenyl Chloride	-	D
MCB	**Acute RfC (mg/m^3)**	**Source**
	Mol. Weight	**Mol. Formula**
	112.56	C_6H_5Cl
	Valid Samples	**Detection Rate**
	3485	0.52%
	Priority	
	IV	

3.11.2 CHLOROBENZENE IN INDIANA

Chlorobenzene has a very low detection rate statewide. In fact, it has only been detected in 18 of the 3,485 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about chlorobenzene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for chlorobenzene. However, Cal/EPA had a RfC for chlorobenzene and this value was used for this study. The critical effect for chlorobenzene is alimentary in nature. U.S. EPA's weight of evidence (WOE) classification of chlorobenzene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of chlorobenzene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for chlorobenzene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, chlorobenzene's median MDL corresponds to a hazard quotient of 0.0002. This MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for chlorobenzene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in chlorobenzene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively low MDL, chlorobenzene has been placed in the second lowest prioritization category, Category IV.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	1%	392			
Fort Wayne CAAP	0%	226			
Gary IITRI	0.47%	428			
Gary Ivanhoe	3.3%	122			
Hammond CAAP	0.23%	437			
Ogden Dunes	0.45%	445			
Pierre Moran School	0.29%	348			
University of Evansville	0.52%	383			
Washington Park	0.23%	429			
Whiting High School	0.36%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.11 Yearly EPCs for Chlorobenzene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.86									
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.11 Yearly EPCs for Chlorobenzene

3.11.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts131.html
http://www.epa.gov/ttn/atw/hlthef/chlorobe.html

3.12 CHLOROETHANE

3.12.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Chloroethane	10	O(I)
CAS #	**RfC Rank**	**Target System**
75-00-3	51 of 53	Reproductive
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Chlorethyl	N/A	-
Ether Hydrochloric	**IUR Rank**	**WOE**
Ether Muriatic		
Ethyl Chloride	-	N/A
Hydrochloric Ether	**Acute RfC (mg/m³)**	**Source**
Monochlorethane		
Monochloroethane	40	O(A)
Muriatic Ether	**Mol. Weight**	**Mol. Formula**
	64.51	C_2H_5Cl
	Valid Samples	**Detection Rate**
	4341	0.78%
	Priority	
	IV	

Chloroethane exists as a colorless, flammable gas in the atmosphere with an ethereal odor and is only slightly soluble in water. Chloroethane is a liquid when kept in pressurized tanks. Chloroethane is used in the production of ethyl cellulose, dyes, and pharmaceuticals. It is also used as a solvent, refrigerant, and topical anesthetic. Chloroethane can be released to the atmosphere from factories that manufacture it or use it. Chloroethane can also be released from landfills and can be present in drinking water due to chlorination.

3.12.2 CHLOROETHANE IN INDIANA

Chloroethane has a very low detection rate statewide. In fact, it has only been detected in 34 of the 4,341 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about chloroethane's impact on Indiana's air quality.

The reference concentration (RfC) for chloroethane was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for chloroethane is reproductive in nature. IRIS has not accessed the carcinogenicity of chloroethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for chloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. However, chloroethane's reference concentration of 10mg/m³ makes it one of the least toxic compounds in the study. In fact, chloroethane concentrations would likely have to increase more than 10,000 fold before they would become a concern from a public health perspective.

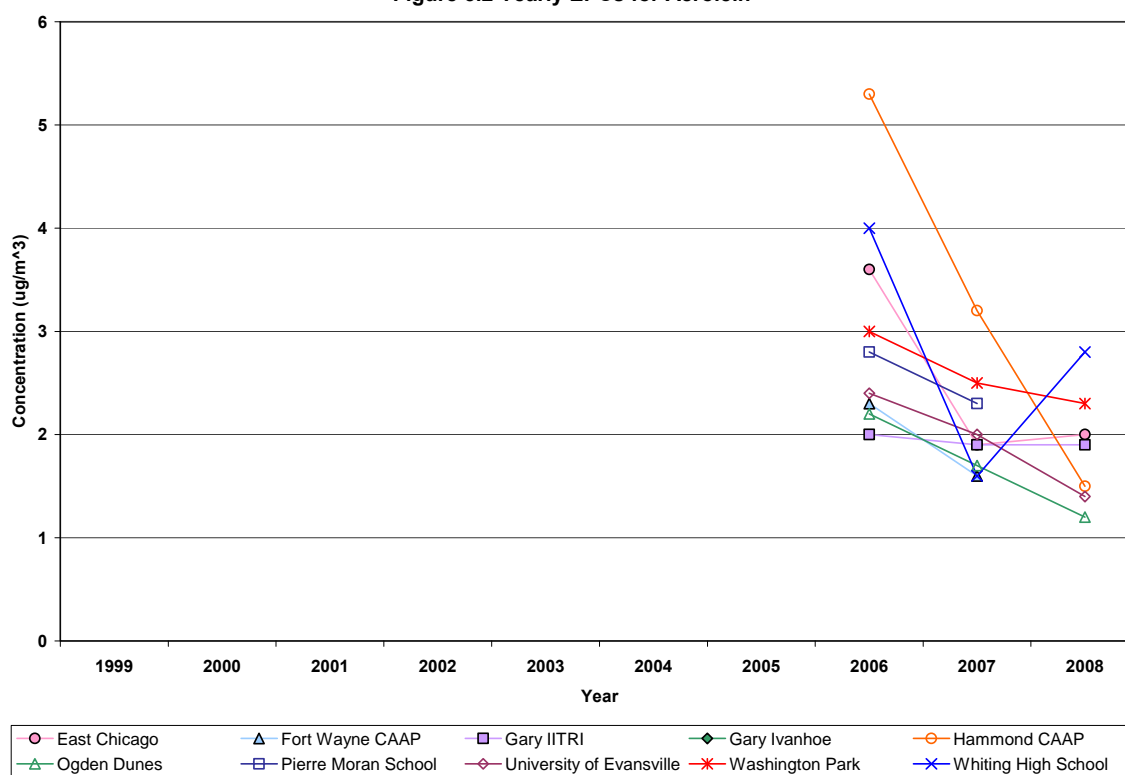| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	1.4%	504			
Fort Wayne CAAP	0%	254			
Gary IITRI	1.1%	541			
Gary Ivanhoe	0%	206			
Hammond CAAP	0%	547			
Ogden Dunes	1.4%	557			
Pierre Moran School	1.8%	445			
University of Evansville	0.21%	479			
Washington Park	0.38%	532			
Whiting High School	0.73%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for chloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in chloroethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively low MDL, chloroethane has been placed in the second lowest prioritization category, Category IV.

Table 3.12 Yearly EPCs for Chloroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago		0.79								
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes				0.81						
Pierre Moran School								0.73		
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.12 Yearly EPCs for Chloroethane

3.12.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts105.html
http://www.epa.gov/ttn/atw/hlthef/chloroet.html

3.13 CHLOROFORM

3.13.1 GENERAL INFORMATION

Chloroform is a colorless liquid with a pleasant, nonirritating odor and a sweet taste. It is primarily used to make other chemicals, mainly the refrigerant HCFC-22. Chloroform can be released to the atmosphere from factories that manufacture it or use it. Pulp and paper mills, hazardous waste sites, and landfills are also sources of chloroform. It can also be present in drinking water due to chlorination.

Pollutant	RfC (mg/m^3)	Source
Chloroform	0.098	O(A)
CAS #	**RfC Rank**	**Target System**
67-66-3	17 of 53	Hepatic
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Formyl Trichloride	2.3x10^{-5}	I
Freon 20	**IUR Rank**	**WOE**
Methane Trichloride	8 of 24	B2
Methenyl Chloride	**Acute RfC (mg/m^3)**	**Source3**
Methenyl Trichloride	0.49	O(A)
Methyl Trichloride	**Mol. Weight**	**Mol. Formula**
Trichloroform	119.38	CHCl$_3$
Trichloromethane	**Valid Samples**	**Detection Rate**
	3211	2.71%
	Priority	
	III	

3.13.2 CHLOROFORM IN INDIANA

Chloroform is not a commonly detected pollutant in Indiana's air. It has only been detected in about 3% of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about chloroform's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for chloroform. However, ATSDR had a chronic MRL for chloroform and this value was used as the RfC for this study. The critical effect for chloroform is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of chloroform places it in Category B2. This means that chloroform is a probable human carcinogen based on adequate animal test data.

Detection rates for chloroform were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 4.5 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for chloroform were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in chloroform concentrations over time has been conducted. Table 3.13 shows that yearly exposure concentrations have been possible the last two years. This is more likely due to decreasing detection limits, rather than increasing concentrations.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	2.5%	363			
Fort Wayne CAAP	1.8%	226			
Gary IITRI	0.26%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	2.6%	392			
Ogden Dunes	2.8%	397			
Pierre Moran School	0.95%	316			
University of Evansville	6.4%	359			
Washington Park	3.6%	387			
Whiting High School	4.4%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

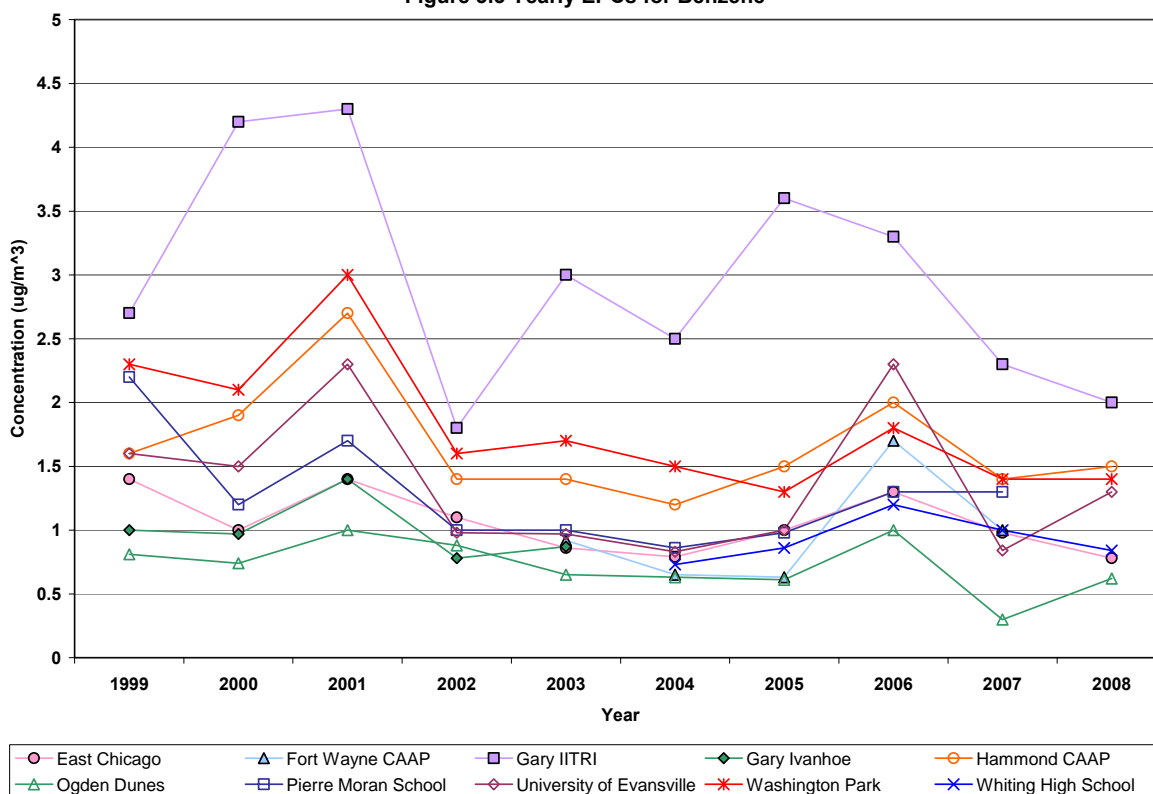Due to the very low detection rate, lack of trend data, and relatively high MDL, Chloroform has been placed in the middle prioritization category, Category III.

Table 3.13 Yearly EPCs for Chloroform

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.15	0.15
Fort Wayne CAAP									0.15	
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP									0.27	
Ogden Dunes									0.15	0.16
Pierre Moran School										
University of Evansville									0.15	0.22
Washington Park									0.15	0.15
Whiting High School									0.16	

Figure 3.13 Yearly EPCs for Chloroform

3.13.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/chlorofo.html
http://www.atsdr.cdc.gov/tfacts6.html

3.14 CHLOROMETHANE

3.14.1 GENERAL INFORMATION

Chloromethane is a clear, colorless gas with a sweet odor that is only noticeable at toxic levels. Chloromethane has a density greater than air and is highly flammable. Chloromethane is found in air, surface water, ground water, and soil. It is present at very low concentrations throughout the atmosphere. Some chloromethane is produced by industry where it is used mainly in the manufacture of silicone. Chloromethane was a common refrigerant in the past, but is no longer commonly used. Most chloromethane that is released to the environment is produced from natural sources such as ocean phytoplankton.

Pollutant	RfC (mg/m³)	Source
Chloromethane	0.09	O(I)
CAS #	RfC Rank	Target System
74-87-3	15 of 53	Neurological
Synonyms	IUR ((µg/m³)⁻¹)	Source
Methyl Chloride Monochloromethane	N/A	-
	IUR Rank	WOE
	-	D
	Acute RfC (mg/m³)	Source
	1	O(A)
	Mol. Weight	Mol. Formula
	50.49	CH₃Cl
	Valid Samples	Detection Rate
	4341	84.38%
	Priority	
	V	

3.14.2 CHLOROMETHANE IN INDIANA

Detections of chloromethane are a common occurrence at ToxWatch monitors across the state. Chloromethane has been detected in about 84% of the 4,341 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about chloromethane.

Hazard quotients calculated for each monitor are surprisingly consistent, which may indicate that chloromethane concentrations are the result of regional, rather than local, factors. Hazard quotients at all monitoring locations indicate that exposure concentrations are well below health protective levels.

Concentration trends are mostly steady, though two monitoring locations have increasing trends, and two have decreasing trends. The increasing trends both come from monitoring locations that have relatively small sample sizes, which could possibly account for this inconsistency. Figure 3.14 shows the very close correlation between yearly concentrations at each monitoring location. This close correlation indicates that, had sampling been conducted at Whiting High School and Fort Wayne CAAP for the full 10-year period, they would show trends more in line with the rest of the dataset.

Because of the high detection rate, low hazard quotients, and consistent concentration trend data, chloromethane has been placed in the lowest prioritization category, Category V.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	83%	504	↔	0.011	
Fort Wayne CAAP	78%	254	↗	0.0079	
Gary IITRI	86%	541	↔	0.011	
Gary Ivanhoe	89%	206	↔	0.013	
Hammond CAAP	84%	547	↔	0.01	
Ogden Dunes	86%	557	↔	0.01	
Pierre Moran School	85%	445	↘	0.011	
University of Evansville	81%	479	↘	0.011	
Washington Park	85%	532	↔	0.011	
Whiting High School	89%	275	↗	0.012	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.14 Yearly EPCs for Chloromethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.88	1.5	0.89	2.3	0.87	0.45	0.65	1.2	0.89	0.87
Fort Wayne CAAP					0.84	0.42	0.65	1.0	0.95	
Gary IITRI	0.97	1.1	0.90	2.4	0.91	0.43	0.77	2.1	0.89	0.96
Gary Ivanhoe	0.77	1.1	0.91	2.1	1.1					
Hammond CAAP	0.81	1.1	0.92	2.1	0.91	0.43	0.77	0.93	0.94	0.89
Ogden Dunes	0.80	1.1	0.85	2.4	0.99	0.43	0.75	1.1	0.91	0.96
Pierre Moran School	0.97	1.1	0.90	2.8	0.98	0.43	0.81	0.97	0.93	
University of Evansville	0.72	1.2	1.1	2.4	0.95	0.36	0.76	2.3	0.83	1.1
Washington Park	0.84	1.1	0.86	3.2	1.1	0.39	0.82	1.0	0.9	0.96
Whiting High School						2.3	0.78	0.97	0.93	1.1

Figure 3.14 Yearly EPCs for Chloromethane

3.14.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/methylch.html
http://www.atsdr.cdc.gov/tfacts106.html

3.15 CYCLOHEXANE

3.15.1 GENERAL INFORMATION

Cyclohexane is a colorless, flammable liquid with a petroleum-like odor. It is insoluble in water. Cyclohexane occurs naturally in petroleum crude oil, volcanic gases, and cigarette smoke. The majority of cyclohexane is manufactured and used to make nylon. Other uses include as a solvent, paint remover, and to make other chemicals.

Pollutant	RfC (mg/m³)	Source
Cyclohexane	6	I
CAS #	**RfC Rank**	**Target System**
110-82-7	49 of 53	Reproductive
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Benzenehexahydride Hexahydrobenzene Hexamethylene Hexanaphthene	N/A	-
	IUR Rank	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	84.16	C_6H_{12}
	Valid Samples	**Detection Rate**
	4341	34%
	Priority	
	V	

3.15.2 CYCLOHEXANE IN INDIANA

Detections of cyclohexane are a moderately common occurrence at ToxWatch monitors. It has been detected in about 34% of the 4,341 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for cyclohexane was found in IRIS. U.S. EPA has low/medium confidence in this RfC. The critical effect for cyclohexane is reproductive in nature. U.S. EPA has assessed the data related to cyclohexane and found it inadequate to make a determination of carcinogenicity. No other source in the hierarchy contained an inhalation unit risk for the pollutant..

Exposure concentrations calculated for cyclohexane ranged from 0.18 µg/m³ to 0.84 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Figure 3.15 shows a spike in exposure concentrations for the Gary IITRI monitoring location. This increased exposure concentration is due to a spike of 98 µg/m³ which occurred on August 16, 2007, along with two smaller spikes in that same year. Even concentrations of 98 µg/m³ are well below even chronic health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for cyclohexane at nearly all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be decreasing for the most part.

Due to the relatively low detection rate, apparent decreasing trends, and relatively low exposure concentrations, cyclohexane has been placed in the lowest prioritization category, Category V.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	38%	504	↘	0.000068	
Fort Wayne CAAP	11%	254		0.000032	
Gary IITRI	28%	541	↗	0.00014	
Gary Ivanhoe	35%	206	↘	0.000048	
Hammond CAAP	60%	547	↔	0.00009	
Ogden Dunes	15%	557		0.00003	
Pierre Moran School	31%	445	↘	0.000043	
University of Evansville	29%	479	↔	0.000037	
Washington Park	38%	532	↘	0.000043	
Whiting High School	49%	275	↗	0.000048	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result; HQ = Hazard Quotient; RE = Risk Estimate
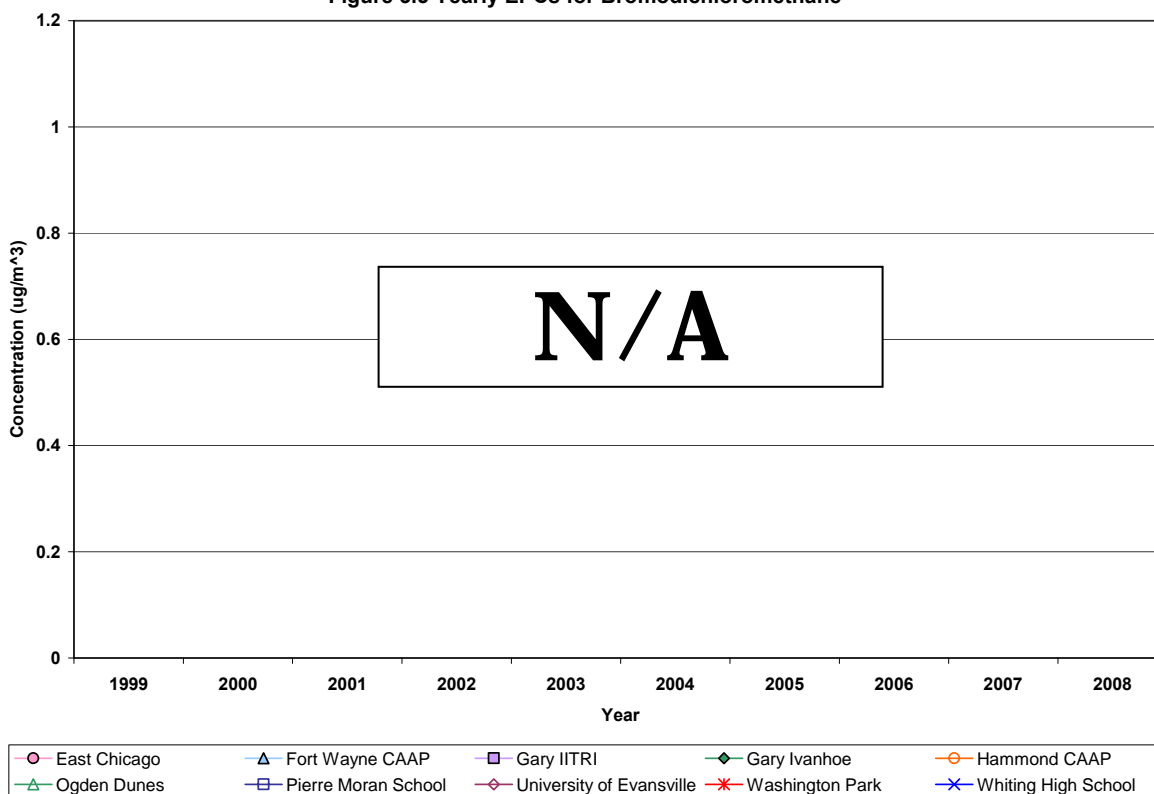
Table 3.15 Yearly EPCs for Cyclohexane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.45	0.48	0.48	0.40		0.60	0.45	0.31	1.7	0.19
Fort Wayne CAAP							0.45		0.15	
Gary IITRI	0.27	0.28	0.34	0.29			0.53	0.37	6.7	0.24
Gary Ivanhoe	0.37	0.34	0.39	0.25						
Hammond CAAP	1.4	0.90	1.1	0.44	0.43	0.40	0.65	0.63	0.49	0.40
Ogden Dunes	0.25	0.22	0.37	0.35			0.63		0.15	0.12
Pierre Moran School	0.38	0.35	0.43	0.26			0.61	0.27	0.18	
University of Evansville	0.40	0.37	0.47	0.31			0.42	0.51	0.19	0.23
Washington Park	0.57	0.43	0.46	0.29	0.30	0.31	0.55	0.38	0.20	0.19
Whiting High School						0.51	0.37	0.34	0.40	0.31

Figure 3.15 Yearly EPCs for Cyclohexane

3.15.3 REFERENCES
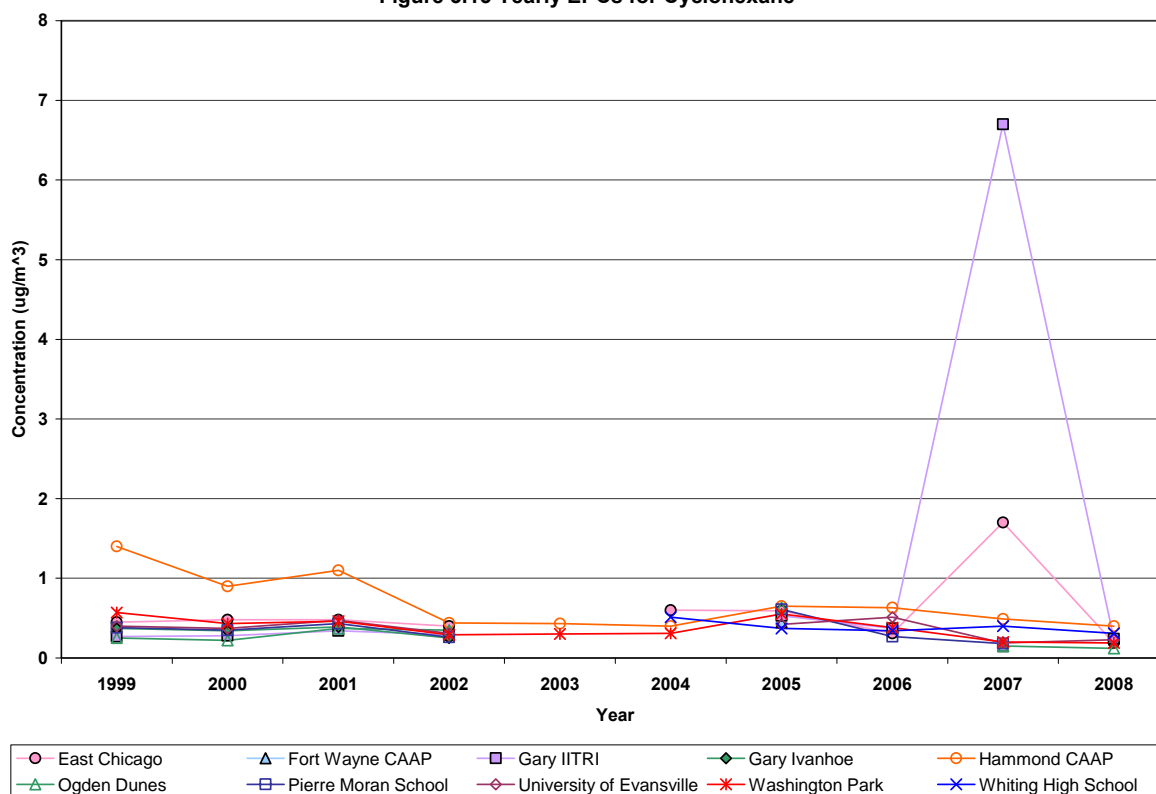
http://cameochemicals.noaa.gov/chemical/3043
http://epa.gov/chemfact/f_cycloh.txt

3.16 DIBROMOCHLOROMETHANE

3.16.1 GENERAL INFORMATION

Dibromochloromethane is a colorless to pale yellow liquid with a sweet odor. It is slightly soluble in water and is nonflammable. Small amounts of dibromochloromethane are created naturally by plants in the ocean. Most dibromochloromethane, however, is created as a byproduct when chlorine is added to drinking water to kill bacteria.

Pollutant	RfC (mg/m^3)	Source
Dibromochloromethane	N/A	-
CAS #	RfC Rank	Target System
124-48-1	-	-
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
Chlorodibromomethane Dibromomonochloromethane Monochlorodibromomethane	2.7×10^{-5}	C
	IUR Rank	WOE
	6 of 24	C
	Acute RfC (mg/m^3)	Source2Cl
	Mol. Weight	Mol. Formula
	208.28	$CHBr_2Cl$
	Valid Samples	Detection Rate
	2386	0.04%
	Priority	
	II	

3.16.2 DIBROMOCHLOROMETHANE IN INDIANA

Dibromochloromethane has a very low detection rate statewide. In fact, it has only been detected in 1 of the 2,386 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about dibromochloromethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for dibromochloromethane. No other source in the toxicity heirarchy had a RfC available. Dibromochloromethane is listed as a possible human carcinogen by U.S. EPA though they do not provide an inhalation unit risk (IUR) for the contaminant. The IUR used for this report was taken from Cal/EPA instead. This IUR indicates that MDLs for dibromochloromethane are not sufficient to determine if the pollutant poses an unacceptable risk to human health.

Detection rates for dibromochloromethane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 11 in 1,000,000. This is above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for dibromochloromethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in dibromochloromethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, dibromochloromethane has been placed in the second highest prioritization category, Category II.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	275			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	289			
Gary Ivanhoe	0%	0			
Hammond CAAP	0.35%	289			
Ogden Dunes	0%	280			
Pierre Moran School	0%	219			
University of Evansville	0%	259			
Washington Park	0%	274			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
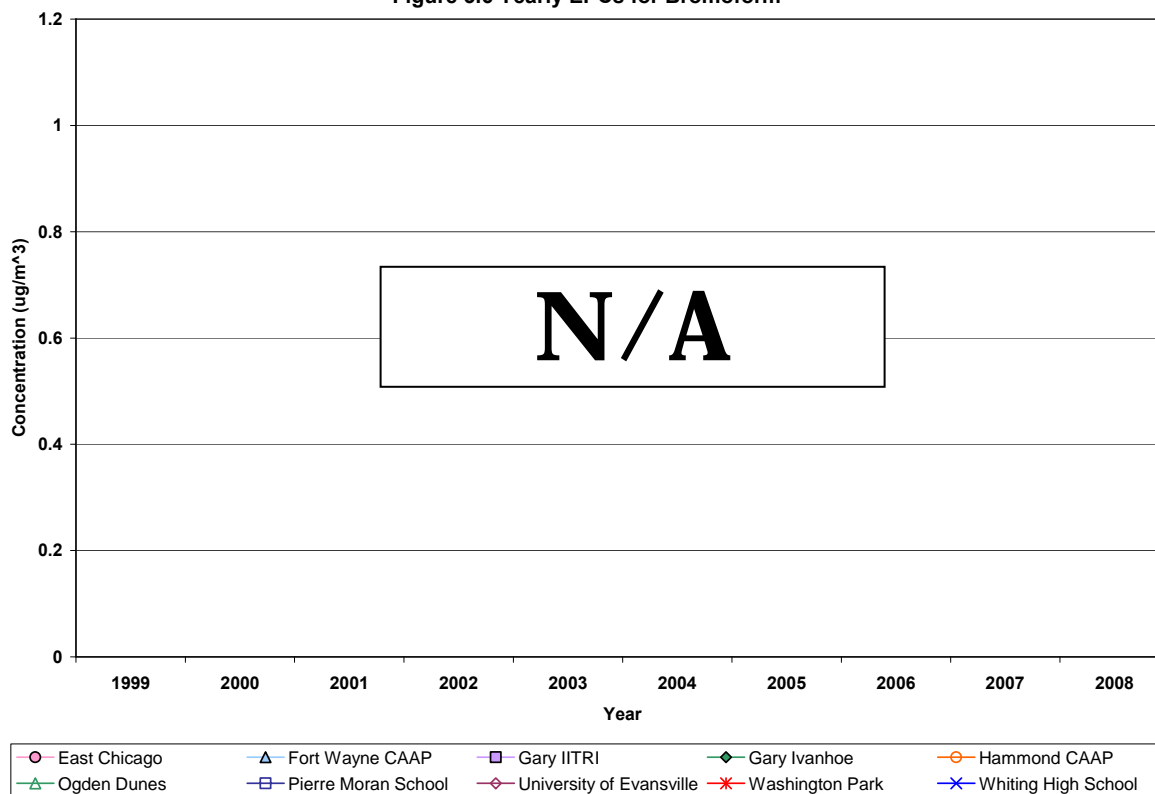HQ = Hazard Quotient; RE = Risk Estimate

Table 3.16 Yearly EPCs for Dibromochloromethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.16 Yearly EPCs for Dibromochloromethane

3.16.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts130.html
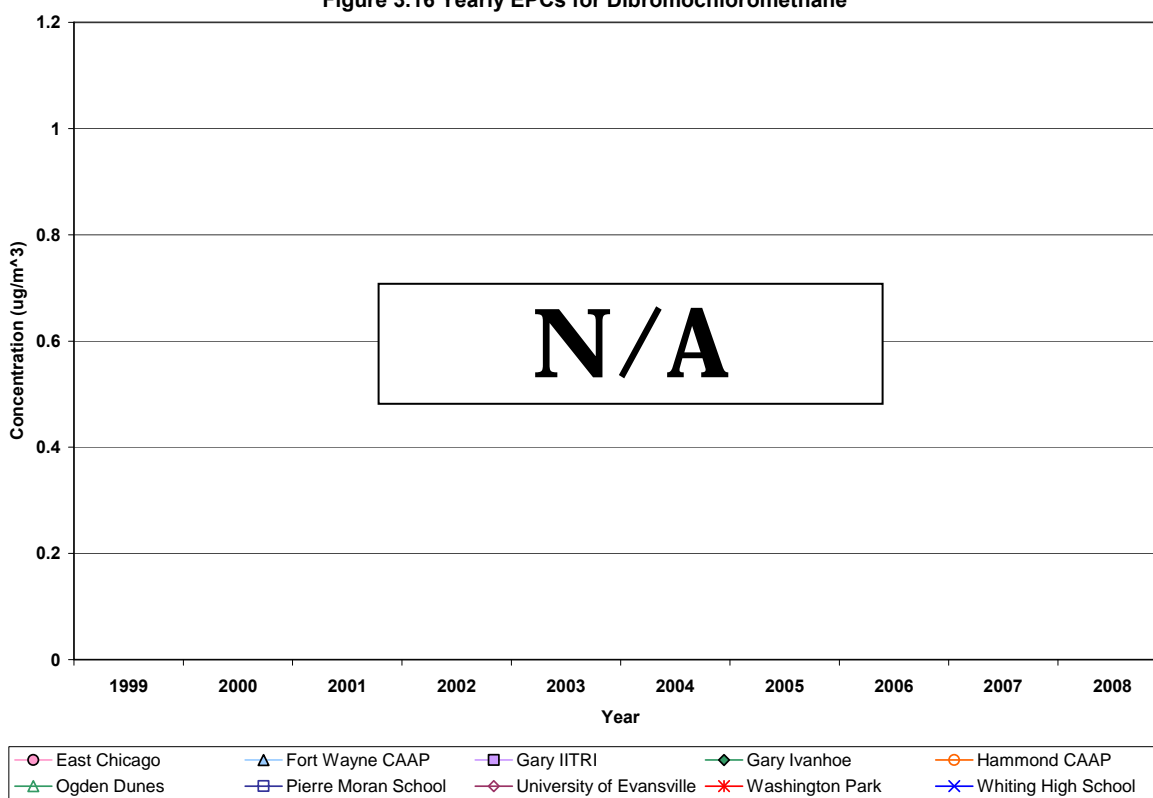
3.17 1,2-DIBROMOETHANE

3.17.1 GENERAL INFORMATION

1,2-Dibromoethane is a colorless liquid with a mild, sweet odor. Dibromochloromethane is slightly soluble in water and is nonflammable. 1,2-Dibromoethane is formed naturally in the ocean by algae and kelp. The vast majority, however, is manufactured. 1,2-Dibromoethane is used to treat harvested logs for termites and beetles. It is also used in the manufacture of dyes, resins, and waxes.

Pollutant	RfC (mg/m³)	Source
1,2-Dibromoethane	0.009	O(I)
CAS #	**RfC Rank**	**Target System**
106-93-4	8 of 53	Respiratory
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
alpha,beta-Dibromoethane	6x10⁻⁴	O(I)
Ethylene Bromide	**IUR Rank**	**WOE**
Ethylene Dibromide	1 of 24	B2
Glycol Dibromide	**Acute RfC (mg/m³)**	**Source2**
s-Dibromoethane		
	Mol. Weight	**Mol. Formula**
	187.86	$C_2H_4Br_2$
	Valid Samples	**Detection Rate**
	3211	0.03%
	Priority	
	I	

3.17.2 1,2-DIBROMOETHANE IN INDIANA

1,2-Dibromoethane was detected only once out of 3,211 valid samples analyzed for the compound. This detection occurred at the Hammond CAAP monitoring location in 2007. This detection corresponds with a spike in nearly all other compounds analyzed in the sample and may be the result of a laboratory error, rather than a legitimate detection. Detection rates this low make it very difficult to draw any conclusions about 1,2-dibromoethane's impact on Indiana's air quality.

The reference concentration (RfC) for 1,2-dibromoethane was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for 1,2-dibromoethane is respiratory in nature. U.S. EPA's weight of evidence (WOE) classification of 1,2-dibromoethane places it in Category B2. This means that 1,2-dibromoethane is a probable human carcinogen based on adequate animal test data.

Detection rates for 1,2-dibromoethane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 460 in 1,000,000. This is well above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

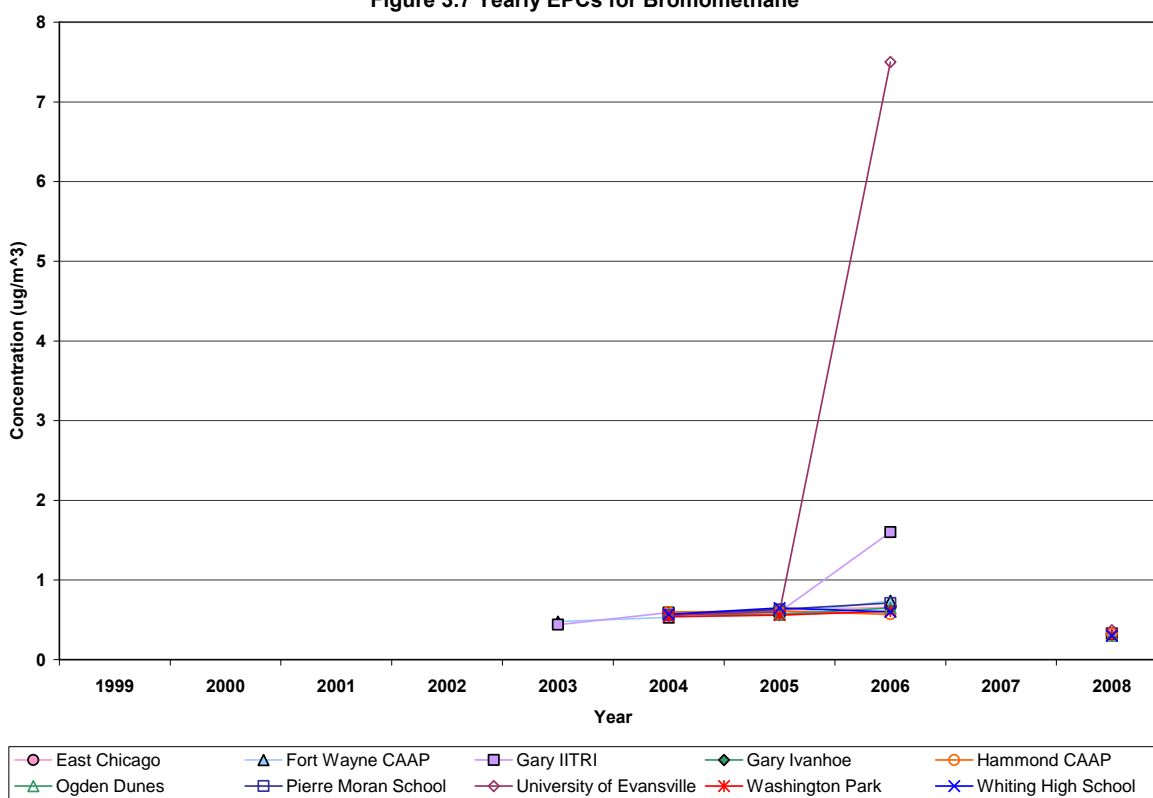| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0%	397			
Pierre Moran School	0%	316			
University of Evansville	0%	359			
Washington Park	0%	387			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for 1,2-dibromoethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,2-dibromoethane concentrations over time has been conducted.

Due to the extremely high risk associated with the MDL, the low detection rate, and the absence of concentration trend data, 1,2-dibromoethane has been placed in the highest prioritization category, Category I.

Table 3.17 Yearly EPCs for 1,2-Dibromoethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

N/A

Figure 3.17 Yearly EPCs for 1,2-Dibromoethane

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.17.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/ethyl-di.html
http://www.atsdr.cdc.gov/tfacts37.html

3.18 M-DICHLOROBENZENE

3.18.1 GENERAL INFORMATION

m-Dichlorobenzene is a combustible, colorless liquid. It is insoluble in water and has a pleasant odor. m-Dichlorobenzene is used as a solvent, a fumigant, and as a chemical intermediate in the manufacture of other chemicals.

3.18.2 M-DICHLOROBENZENE IN INDIANA

Very little can be said about m-dichlorobenzene because its low detection rate. It was only detected in about 2% of the valid samples analyzed for it. This low detection rate makes it very difficult to draw any conclusions about m-dichlorobenzene's impact on Indiana's air.

Pollutant	RfC (mg/m³)	Source
m-Dichlorobenzene	N/A	-
CAS #	RfC Rank	Target System
541-73-1	-	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
1,3-Dichlorobenzene	N/A	-
m-Dichlorobenzol	IUR Rank	WOE
m-Phenylene Dichloride	-	D
	Acute RfC (mg/m³)	Source2
	Mol. Weight	Mol. Formula
	147	$C_6H_4Cl_2$
	Valid Samples	Detection Rate
	4341	2.33%
	Priority	
	II	

In addition, m-dichlorobenzene is one of a handful of pollutants that did not have toxicity data available in any source in the hierarchy. This prevents any assumptions from being made about whether current detection limits are sufficient to protect against hazards to human health.

While detection rates at most monitoring locations hover around 1%, Whiting High School had a detection rate of nearly 20%. This increased detection rate holds true for the other dichlorobenzene isomers as well, which could indicate a nearby source of dichlorobenzene affecting the school. If reference concentrations for the other isomers are any indication, measured concentrations of m-dichlorobenzene, even at Whiting High School, are not likely to be significantly impacting human health from a non-carcinogenic standpoint. However, one of the other dichlorobenzene isomers, p-dichlorobenzene, is considered a carcinogen and if m-dichlorobenzene shares this property, its MDL is likely not low enough to determine if it is causing significant increased cancer risk.

The low detection rates of m-dichlorobenzene at all monitoring locations make it impossible to draw any conclusions about concentration trends for the pollutant.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.79%	504			
Fort Wayne CAAP	1.2%	254			
Gary IITRI	1.5%	541			
Gary Ivanhoe	0.49%	206			
Hammond CAAP	1.6%	547			
Ogden Dunes	1.3%	557			
Pierre Moran School	1.1%	445			
University of Evansville	1.5%	479			
Washington Park	1.5%	532			
Whiting High School	18%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Without toxicity information, it is difficult to place m-dichlorobenzene in a prioritization category. If the assumption is made that m-dichlorobenzene's toxicity is similar to that of the other dichlorobenzene isomers; that combined with its low detection rate, possible carcinogenicity, and lack of trend data would tend to place it in Category III. However, since there is added uncertainty about its true toxicity, it has been placed one category higher, in Category II.

Table 3.18 Yearly EPCs for m-Dichlorobenzene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School						1.9	0.39	0.61		

Figure 3.18 Yearly EPCs for m-Dichlorobenzene

3.18.3 REFERENCES

http://dhss.delaware.gov/dhss/dph/files/dichlbe12faq.pdf
http://www.atsdr.cdc.gov/tfacts10.html

3.19 P-DICHLOROBENZENE

3.19.1 GENERAL INFORMATION

p-Dichlorobenzene is a clear or white solid that turns to a gas when exposed to air. It has a strong, sharp odor like mothballs and is insoluble in water. p-Dichlorobenzene is used in the manufacture of air fresheners, mothballs, and toilet deodorant blocks.

Pollutant	RfC (mg/m³)	Source
p-Dichlorobenzene	0.8	O(I)
CAS #	**RfC Rank**	**Target System**
106-46-7	35 of 53	Reproductive
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
1,4-Dichlorobenzene	1.1×10^{-5}	O(C)
Paradichlorobenzene	**IUR Rank**	**WOE**
Paradichlorobenzol	13 of 24	N/A
p-Chlorophenyl Chloride	**Acute RfC (mg/m³)**	**Source2**
	12	O(A)
	Mol. Weight	**Mol. Formula**
	147	$C_6H_4Cl_2$
	Valid Samples	**Detection Rate**
	4341	12.99%
	Priority	
	III	

3.19.2 P-DICHLOROBENZENE IN INDIANA

p-Dichlorobenzene is detected more often than the other dichlorobenzene isomers, but it still is not a commonly detected pollutant in Indiana's air. It has only been detected in about 13% of the 4,341 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for p-dichlorobenzene was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for p-dichlorobenzene is reproductive in nature. IRIS has not accessed the carcinogenicity of p-dichlorobenzene. However, Cal/EPA contained an inhalation unit risk for p-dichlorobenzene and this value was used in this study.

Exposure concentrations calculated for p-dichlorobenzene ranged from 0.24 µg/m³ to 0.74 µg/m³. These concentrations are well below levels that could pose a hazard to human health from a non-carcinogenic standpoint, but do exceed U.S. EPA's 1 in 1,000,000 risk level by a small amount.

Concentration trend analysis was possible for only one monitoring location. The Whiting High School monitor showed an increasing trend in p-dichlorobenzene concentrations. However, the monitor had an insufficient detection rate to place high confidence on the trend analysis that was performed.

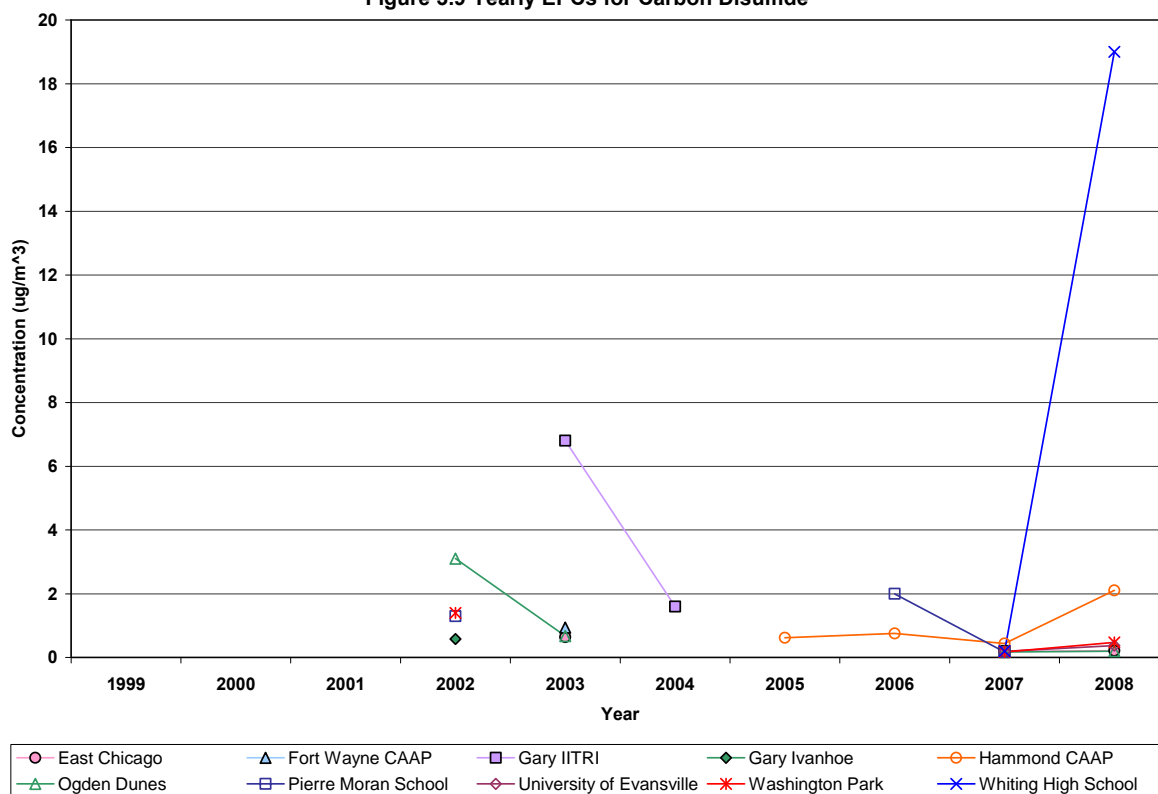| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	10%	504		0.0003	2.6×10^{-6}
Fort Wayne CAAP	13%	254		0.00034	3.0×10^{-6}
Gary IITRI	7%	541			
Gary Ivanhoe	5.3%	206			
Hammond CAAP	11%	547		0.00031	2.8×10^{-6}
Ogden Dunes	7%	557			
Pierre Moran School	14%	445		0.00044	3.8×10^{-6}
University of Evansville	8.4%	479		0.00032	2.9×10^{-6}
Washington Park	15%	532		0.00031	2.8×10^{-6}
Whiting High School	55%	275	↗	0.00092	8.1×10^{-6}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the relatively low detection rate, lack of reliable trend data, and relatively low exposure concentrations, p-dichlorobenzene has been placed in the middle prioritization category, Category III.

Table 3.19 Yearly EPCs for p-Dichlorobenzene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago		0.43							0.45	0.33
Fort Wayne CAAP									0.43	
Gary IITRI			0.72						0.30	
Gary Ivanhoe										
Hammond CAAP			0.65					0.40	0.43	0.31
Ogden Dunes									0.44	0.29
Pierre Moran School		0.43	0.62					0.39	1.2	
University of Evansville	0.55		0.53						0.22	
Washington Park	0.38	0.42	0.47					0.64	0.46	0.27
Whiting High School						1.5	0.41	0.79	1.1	0.78

Figure 3.19 Yearly EPCs for p-Dichlorobenzene

3.19.3 REFERENCES

http://dhss.delaware.gov/dhss/dph/files/dichlbe12faq.pdf
http://www.atsdr.cdc.gov/tfacts10.html

3.20 O-DICHLOROBENZENE

3.20.1 GENERAL INFORMATION

o-Dichlorobenzene is a combustible liquid that ranges from colorless to pale yellow in color. It is insoluble in water and has a pleasant odor. o-Dichlorobenzene is used as a solvent, a fumigant, and as a chemical intermediate.

3.20.2 O-DICHLOROBENZENE IN INDIANA

Pollutant	RfC (mg/m^3)	Source
o-Dichlorobenzene	0.6	R
CAS #	RfC Rank	Target System
95-50-1	30 of 53	-
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
1,2-Dichlorobenzene Orthodichlorobenzene Orthodichlorobenzol	N/A	-
	IUR Rank	WOE
	-	D
	Acute RfC (mg/m^3)	Source2
	Mol. Weight	Mol. Formula
	147	$C_6H_4Cl_2$
	Valid Samples	Detection Rate
	3211	0.4%
	Priority	
	III	

o-Dichlorobenzene was the least commonly detected dichlorobenzene isomer and has a very low detection rate statewide. In fact, it has only been detected in 13 of the 3211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about o-dichlorobenzene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for o-dichlorobenzene. However, OAQPS route-extrapolated a RfC for o-dichlorobenzene and this value was used for this study. The critical effect for o-dichlorobenzene could not be determined. U.S. EPA's weight of evidence (WOE) classification of o-dichlorobenzene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the carconogenicity of o-dichlorobenzene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for o-dichlorobenzene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for O-dichlorobenzene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in o-Dichlorobenzene concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0.26%	391			
Gary Ivanhoe	0.95%	105			
Hammond CAAP	1%	392			
Ogden Dunes	0%	397			
Pierre Moran School	0%	316			
University of Evansville	0.28%	359			
Washington Park	0%	387			
Whiting High School	2.2%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and relatively low MDL, o-dichlorobenzene has been placed in the middle prioritization category, Category III.

Table 3.20 Yearly EPCs for o-Dichlorobenzene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School						4.0				

Figure 3.20 Yearly EPCs for o-Dichlorobenzene

3.20.3 REFERENCES

http://dhss.delaware.gov/dhss/dph/files/dichlbe12faq.pdf
http://www.atsdr.cdc.gov/tfacts10.html
http://nj.gov/health/eoh/rtkweb/documents/fs/0642.pdf

3.21 DICHLORODIFLUOROMETHANE (F-12)

3.21.1 GENERAL INFORMATION

Dichlorodifluoromethane is a colorless, volatile liquid that turns into a gas at temperatures above 75°F. It has an ether-like odor and is nonflammable. Dichlorodifluoromethane is no longer manufactured in the United States due to its ozone depleting characteristics. Existing stocks of the pollutant are allowed to be used. It was traditionally used as a refrigerant, an aerosol propellant, to manufacture plastic, or as a leak detecting agent.

Pollutant	RfC (mg/m³)	Source
Dichlorodifluoromethane	1.5	ACGIH
CAS #	**RfC Rank**	**Target System**
75-71-8	41 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Difluorodichloromethane Fluorocarbon-12	N/A	-
	IUR Rank	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	120.91	CCl_2F_2
	Valid Samples	**Detection Rate**
	4341	89.7%
	Priority	
	V	

3.21.2 DICHLORODIFLUOROMETHANE IN INDIANA

Detections of dichlorodifluoromethane are a common occurrence at ToxWatch monitors across the state. It has been found in about 9 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about Dichlorodifluoromethane.

IRIS did not contain a reference concentration (RfC) for dichlorodifluoromethane. However, ACGIH had a Threshold Level Value (TLV) for dichlorodifluoromethane and this value was used to derive a RfC for this study. The critical effect for dichlorodifluoromethane could not be determined. IRIS has not accessed the carcinogenicity of dichlorodifluoromethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for dichlorodifluoromethane ranged from 2.0 µg/m³ to 3.6 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Gary Ivanhoe monitor, represents a value 400 times lower than health protective levels.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	89%	504	↔	0.0017	
Fort Wayne CAAP	84%	254	↗	0.0013	
Gary IITRI	90%	541	↔	0.0019	
Gary Ivanhoe	94%	206	↔	0.0024	
Hammond CAAP	89%	547	↔	0.0016	
Ogden Dunes	91%	557	↔	0.0019	
Pierre Moran School	91%	445	↔	0.002	
University of Evansville	87%	479	↔	0.0019	
Washington Park	90%	532	↔	0.0019	
Whiting High School	95%	275	↗	0.002	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates were sufficient to conduct concentration trend analysis for dichlorodifluoromethane at every monitoring location analyzed for this report. Concentration trends across the state appear to be steady for the most part.

Due to the high detection rate, steady trends, and relatively low exposure concentrations, Dichlorodifluoromethane has been placed in the lowest prioritization category, Category V.

Table 3.21 Yearly EPCs for Dichlorodifluoromethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	2.6	3.0	2.2	6.9	2.2	1.5	1.9	2.5	2.2	2.6
Fort Wayne CAAP					2.4	1.5	1.9	2.6	2.3	
Gary IITRI	2.3	2.7	2.3	9.2	2.4	1.6	2.1	4.9	2.1	2.9
Gary Ivanhoe	2.5	2.6	2.7	7.1	2.8					
Hammond CAAP	2.5	2.3	2.3	5.7	2.5	1.5	2.1	2.4	2.2	2.6
Ogden Dunes	2.5	2.7	2.3	8.9	2.5	1.7	2.0	2.6	2.1	2.9
Pierre Moran School	2.3	2.6	2.3	11	2.4	1.7	2.3	2.6	2.4	
University of Evansville	2.2	2.8	2.6	6.8	2.5	1.3	2.0	5.6	2.0	3.5
Washington Park	2.4	2.8	2.3	10	2.5	1.4	2.1	2.5	2.2	3.0
Whiting High School						1.7	5.6	2.6	2.3	3.5

Figure 3.21 Yearly EPCs for Dichlorodifluoromethane

3.21.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/0649.pdf
http://dhss.delaware.gov/dhss/dph/files/dichldflmetfaq.pdf

3.22 1,1-DICHLOROETHANE

3.22.1 GENERAL INFORMATION

1,1-Dichloroethane is a manufactured chemical that is not found naturally in the environment. It is a colorless, oily liquid with a sweet odor. It is flammable and very volatile. 1,1-Dichloroethane is primarily used as an intermediate in the manufacture of other chemicals such as vinyl chloride and 1,1,1-trichloroethane, and to manufacture high vacuum rubber. It also has limited use as a solvent for plastics, oils, and fats.

Pollutant	RfC (mg/m^3)	Source
1,1-Dichloroethane	0.5	O(H)
CAS #	**RfC Rank**	**Target System**
75-34-3	29 of 53	-
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Ethylidene Chloride	1.6x10^{-6}	O(C)
Ethylidene Dichloride	**IUR Rank**	**WOE**
	21 of 24	C
	Acute RfC (mg/m^3)	**Source2**
	Mol. Weight	**Mol. Formula**
	98.96	C$_2$H$_4$Cl$_2$
	Valid Samples	**Detection Rate**
	3211	0.12%
	Priority	
	II	

3.22.2 1,1-DICHLOROETHANE IN INDIANA

1,1-dichloroethane has a very low detection rate statewide. In fact, it has only been detected in 4 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,1-dichloroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,1-dichloroethane. However, HEAST had a RfC for 1,1-dichloroethane and this value was used for this study. The critical effect for 1,1-dichloroethane could not be determined. U.S. EPA's weight of evidence (WOE) classification of 1,1-dichloroethane places it in Category C. This means that 1,1-dichloroethane is a possible human carcinogen based on limited animal and/or human test data. IRIS did not list an inhalation unit risk for 1,1-dichloroethane. However, Cal/EPA contained an IUR for the pollutant and this value was used in the ToxWatch study.

Detection rates for 1,1-dichloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health for a non-carcinogenic or carcinogeic standpoint.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0.25%	397			
Pierre Moran School	0.32%	316			
University of Evansville	0%	359			
Washington Park	0.26%	387			
Whiting High School	0%	275			

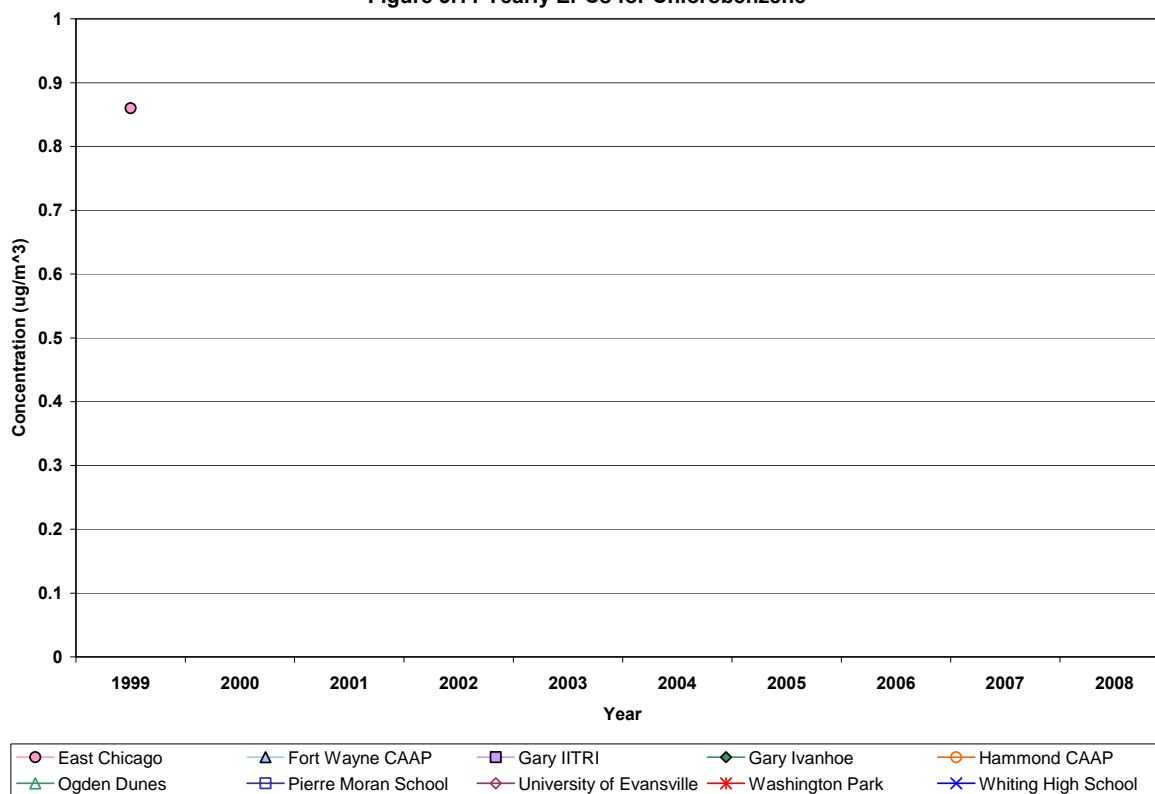DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for 1,1-dichloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,1-dichloroethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively low MDL, 1,1-dichloroethane has been placed in the second highest prioritization category, Category II.

Table 3.22 Yearly EPCs for 1,1-Dichloroethane

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe					N/A					
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.22 Yearly EPCs for 1,1-Dichloroethane

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.22.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/dichloro.html
http://www.atsdr.cdc.gov/tfacts133.html

3.23   1,2-DICHLOROETHANE

3.23.1 GENERAL INFORMATION

1,2-Dichloroethane is a manufactured chemical that is not found naturally in the environment. It is a colorless, oily, heavy liquid that is slightly soluble in water and has a pleasant chloroform-like odor. The most common use of 1,2-dichloroethane is in the production of vinyl chloride which is used to make a variety of plastic and vinyl products including polyvinyl chloride (PVC) pipes, furniture, automobile upholstery, wall coverings, housewares, and automobile parts.

Pollutant	RfC (mg/m³)	Source
1,2-Dichloroethane	2.4	O(A)
CAS #	**RfC Rank**	**Target System**
107-06-2	42 of 53	Hepatic
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Ethane Dichloride	2.6×10^{-5}	O(I)
Ethylene Chloride	**IUR Rank**	**WOE**
Glycol Dichloride	7 of 24	B2
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	98.96	$C_2H_4Cl_2$
	Valid Samples	**Detection Rate**
	3211	0.4%
	Priority	
	II	

3.23.2 1,2-DICHLOROETHANE IN INDIANA

1,2-Dichloroethane has a very low detection rate statewide. In fact, it has only been detected in 13 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,2-dichloroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,2-dichloroethane. However, ATSDR had a chronic minimal risk level (MRL) for 1,2-dichloroethane and this value was used as the RfC for this study. The critical effect for 1,2-dichloroethane is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of 1,2-dichloroethane places it in Category B2. This means that 1,2-dichloroethane is a probable human carcinogen based on adequate animal test data.

Detection rates for 1,2-dichloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 7 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.28%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.77%	392			
Ogden Dunes	0.5%	397			
Pierre Moran School	0.32%	316			
University of Evansville	1.7%	359			
Washington Park	0%	387			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
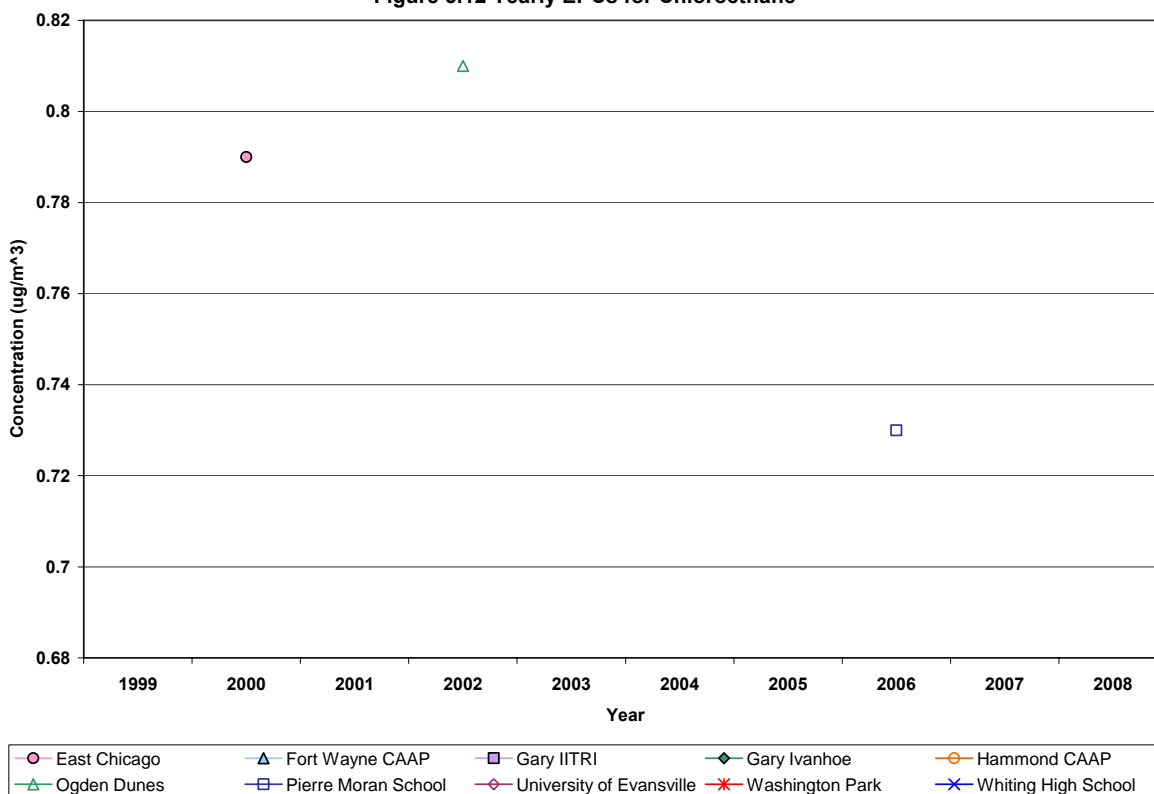HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for 1,2-dichloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,2-dichloroethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, 1,2-dichloroethane has been placed in the second highest prioritization category, Category II.

Table 3.23 Yearly EPCs for 1,2-Dichloroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.23 Yearly EPCs for 1,2-Dichloroethane

3.23.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts38.html
http://www.epa.gov/ttn/atw/hlthef/di-ethan.html

3.24 T-1,2-DICHLOROETHENE

3.24.1 GENERAL INFORMATION

t-1,2-Dichloroethene is a highly flammable, colorless liquid with a sharp, harsh odor. It is very reactive in the air, with a half-life of only 5-12 days. t-1,2-Dichloroethene is used as a solvent and to make other chemicals.

3.24.2 T-1,2-DICHLOROETHENE IN INDIANA

t-1,2-Dichloroethene has a very low detection rate statewide. In fact, it has

Pollutant	RfC (mg/m³)	Source
t-1,2-Dichloroethene	0.06	R
CAS #	**RfC Rank**	**Target System**
156-60-5	14 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
trans-1,2-Dichloroethene	N/A	-
	IUR Rank	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	96.94	$C_2H_2Cl_2$
	Valid Samples	**Detection Rate**
	2386	0.38%
	Priority	
	III	

only been detected in 9 of the 2,386 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about t-1,2-dichloroethene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for t-1,2-dichloroethene. However, OAQPS route-extrapolated a RfC for t-1,2-dichloroethene and this value was used for this study. The critical effect for t-1,2-dichloroethene could not be determined. IRIS has not accessed the carcinogenicity of t-1,2-dichloroethene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for t-1,2-dichloroethene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for t-1,2-dichloroethene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in t-1,2-dichloroethene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively low MDL, t-1,2-dichloroethene has been placed in the middle prioritization category, Category III.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	275			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	289			
Gary Ivanhoe	0%	0			
Hammond CAAP	1%	289			
Ogden Dunes	0.36%	280			
Pierre Moran School	0.46%	219			
University of Evansville	0.77%	259			
Washington Park	0%	274			
Whiting High School	0.73%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
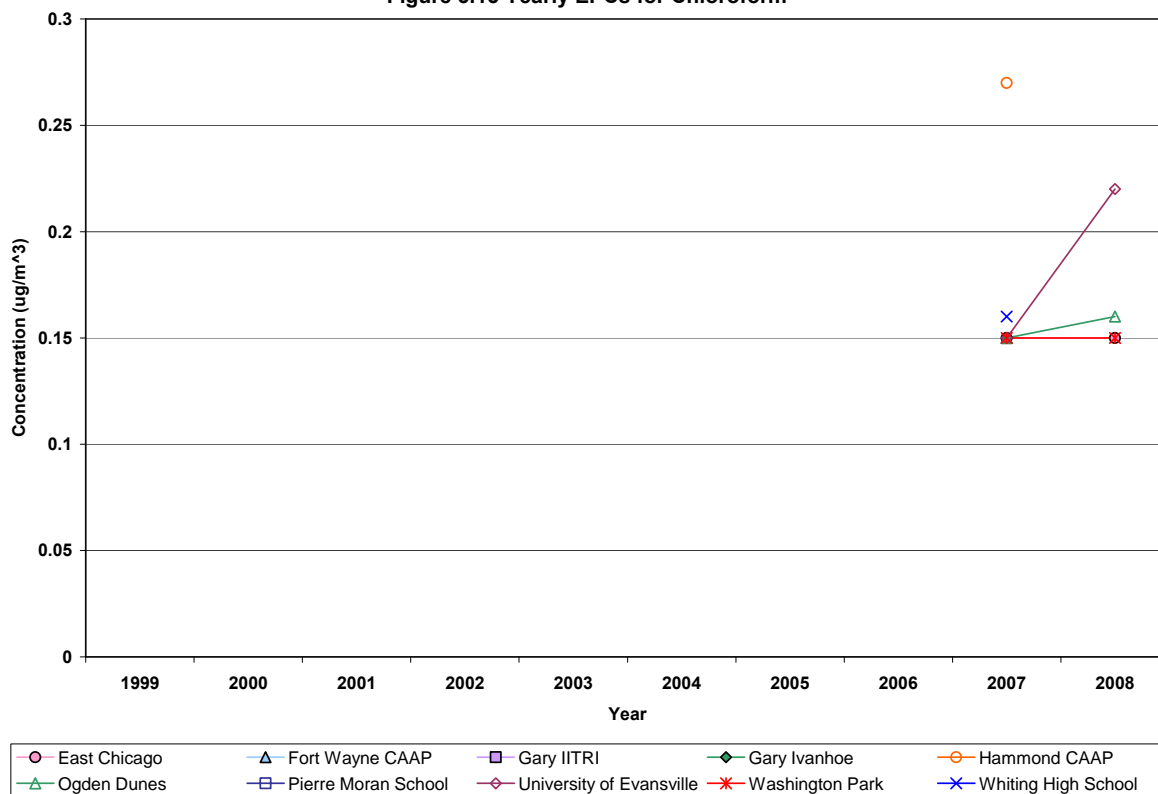HQ = Hazard Quotient; RE = Risk Estimate

Table 3.24 Yearly EPCs for t-1,2-Dichloroethene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.24 Yearly EPCs for t-1,2-Dichloroethene

3.24.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts87.pdf
http://www.atsdr.cdc.gov/tfacts87.html
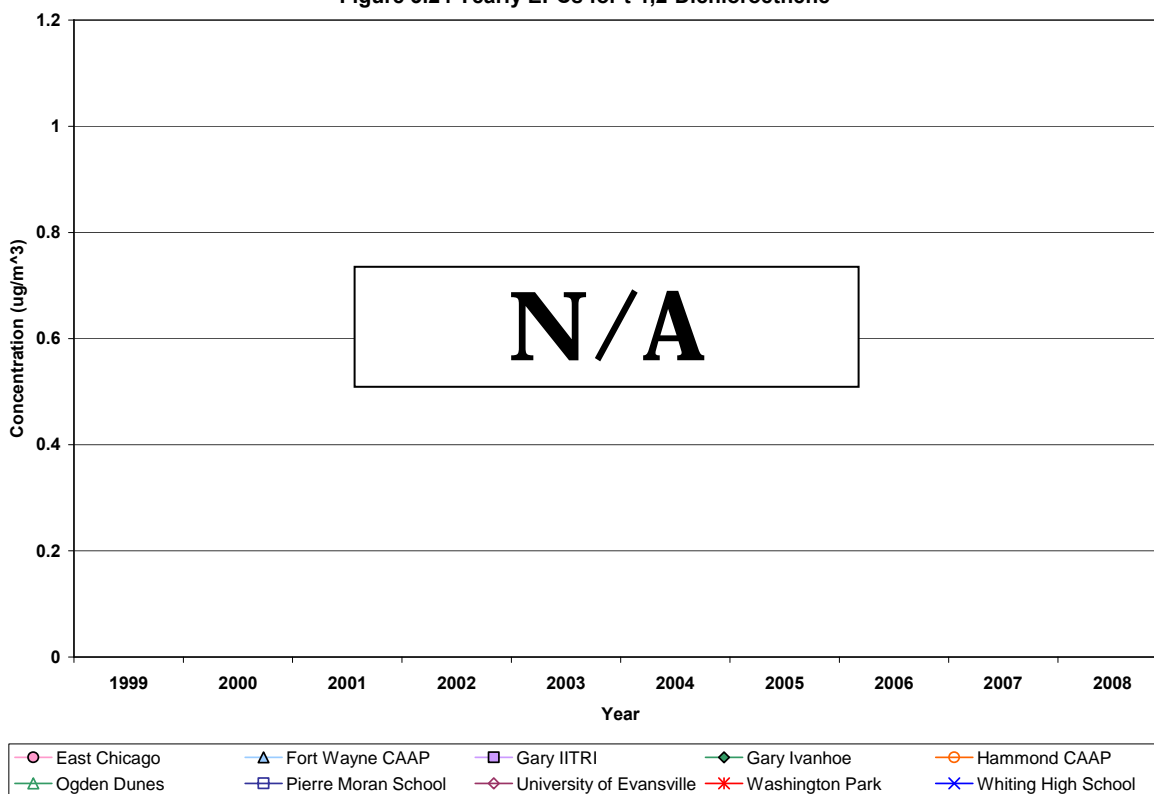
3.25 C-1,2-DICHLOROETHENE

3.25.1 GENERAL INFORMATION

c-1,2-Dichloroethene is a highly flammable, colorless liquid with a sharp, harsh odor. It is very reactive in the air, with a half-life of only 5 to 12 days. c-1,2-Dichloroethene is used as a solvent and to make other chemicals.

3.25.2 C-1,2-DICHLOROETHENE IN INDIANA

c-1,2-Dichloroethene has a very low detection rate statewide. In fact, it has only been detected in 5 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about c-1,2-dichloroethene's impact on Indiana's air quality.

Pollutant	RfC (mg/m^3)	Source
c-1,2-Dichloroethene	0.03	R
CAS #	RfC Rank	Target System
156-59-2	10 of 53	-
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
cis-1,2-Dichloroethene	N/A	-
	IUR Rank	WOE
	-	D
	Acute RfC (mg/m^3)	Source2
	Mol. Weight	Mol. Formula
	96.94	$C_2H_2Cl_2$
	Valid Samples	Detection Rate
	3211	0.16%
	Priority	
	III	

IRIS did not contain a reference concentration (RfC) for c-1,2-dichloroethene. However, OAQPS route-extrapolated a RfC for c-1,2-dichloroethene and this value was used for this study. The critical effect for c-1,2-dichloroethene could not be determined. U.S. EPA's weight of evidence (WOE) classification of c-1,2-dichloroethene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of c-1,2-dichloroethene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for c-1,2-dichloroethene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for c-1,2-dichloroethene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in c-1,2-dichloroethene concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.28%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0.25%	397			
Pierre Moran School	0%	316			
University of Evansville	0%	359			
Washington Park	0.26%	387			
Whiting High School	0.36%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
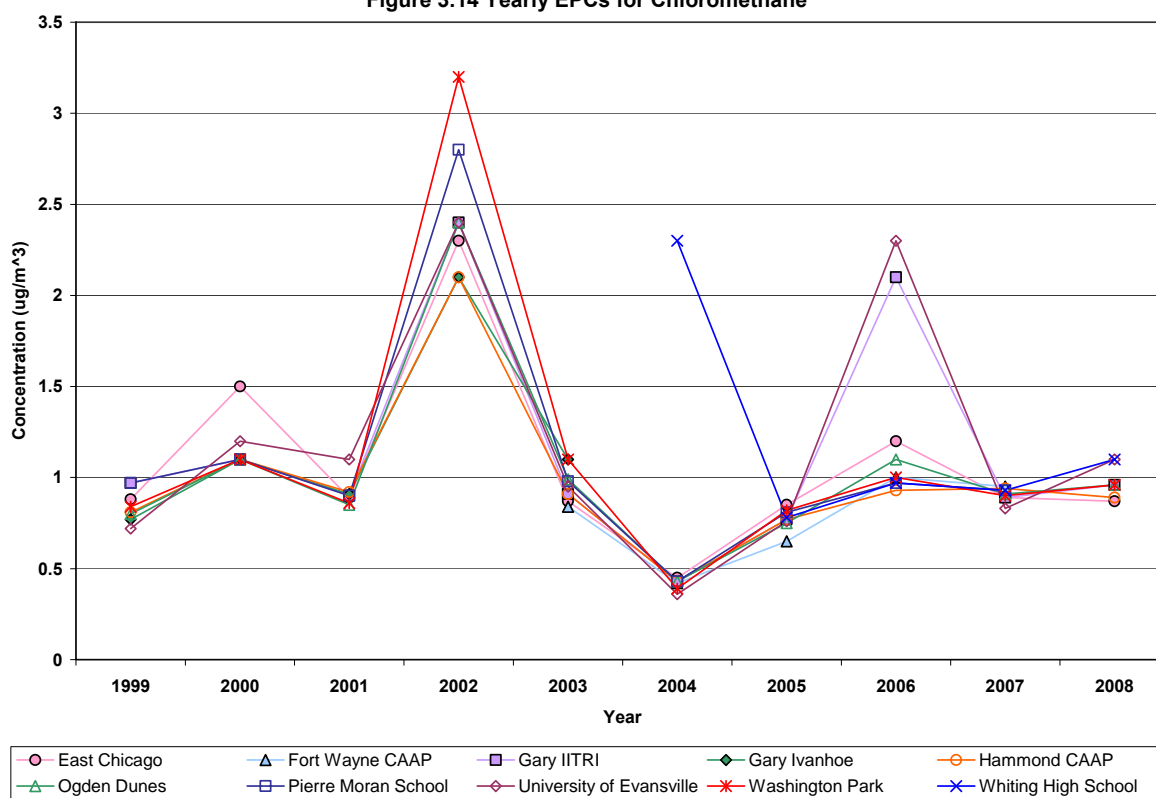HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and relatively low MDL, c-1,2-dichloroethene has been placed in the middle prioritization category, Category III.

Table 3.25 Yearly EPCs for c-1,2-Dichloroethene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.25 Yearly EPCs for c-1,2-Dichloroethene

N/A

3.25.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts87.pdf
http://www.atsdr.cdc.gov/tfacts87.html

3.26 DICHLOROMETHANE

3.26.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Dichloromethane	1	O(A)
CAS #	RfC Rank	Target System
75-09-2	36 of 53	Hepatic
Synonyms	IUR ((µg/m³)⁻¹)	Source
1,1-Dichloromethane	4.7×10^{-7}	O(I)
Freon 30	IUR Rank	WOE
Methane Dichloride	23 of 24	B2
Methylene Bichloride	Acute RfC (mg/m³)	Source2
Methylene Chloride		
Methylene Dichloride	Mol. Weight	Mol. Formula
	84.93	CH_2Cl_2
	Valid Samples	Detection Rate
	4341	24.26%
	Priority	
	II	

Dichloromethane is a colorless liquid with a sweetish odor. It is slightly soluble in water and is nonflammable. Dichloromethane is predominantly used as a solvent in paint strippers and removers; as a process solvent in the manufacture of pharmaceuticals and film coatings; as a metal cleaning and finishing solvent in electronics manufacturing; and as an agent in urethane foam blowing. It is also used as a propellant in aerosols for products such as paints, insect sprays, and as a postharvest fumigant for grains and strawberries.

3.26.2 DICHLOROMETHANE IN INDIANA

Detections of dichloromethane are a moderately common occurrence at ToxWatch monitors. It has been detected in about 24% of the 4,341 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for dichloromethane. However, ATSDR had a chronic minimal risk level (MRL) for dichloromethane and this value was used as the RfC for this study. The critical effect for dichloromethane is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of dichloromethane places it in Category B2. This means that dichloromethane is a probable human carcinogen based on adequate animal test data.

Exposure concentrations calculated for dichloromethane ranged from 0.16 µg/m³ to 0.82 µg/m³. These concentrations are below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Pierre Moran School monitor, represents a value 1,000 times lower than health protective levels.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	27%	504	↗	0.00031	1.5×10^{-7}
Fort Wayne CAAP	11%	254		0.00025	1.2×10^{-7}
Gary IITRI	15%	541		0.00021	9.9×10^{-8}
Gary Ivanhoe	3.9%	206			
Hammond CAAP	27%	547	↗	0.00037	1.7×10^{-7}
Ogden Dunes	11%	557		0.00016	7.5×10^{-8}
Pierre Moran School	31%	445	↘	0.00082	3.9×10^{-7}
University of Evansville	28%	479	↗	0.0003	1.4×10^{-7}
Washington Park	40%	532	↔	0.00046	2.2×10^{-7}
Whiting High School	39%	275	↗	0.00027	1.3×10^{-7}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Concentration trend analysis was possible for some but not all monitoring locations, though the detection rates make the trend analysis somewhat unreliable. Trends across the state appear to be increasing for the most part.

Due to the low detection rate, lack of complete and reliable trend data, and apparent increasing trends, dichloromethane has been placed in the second highest prioritization category, Category II.

Table 3.26 Yearly EPCs for Dichloromethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.48	0.74	0.54	0.47			0.53	0.51	0.39	0.40
Fort Wayne CAAP							0.53	0.49	0.23	
Gary IITRI	0.36	0.42					0.50	0.71	0.27	0.20
Gary Ivanhoe		0.5								
Hammond CAAP	0.39	0.46	0.59	1.0		0.48	0.51	0.51	1.0	0.55
Ogden Dunes							0.46	0.44	0.23	0.21
Pierre Moran School	2.1	3.0	2.2	0.44			0.61	0.5	0.28	
University of Evansville	0.46	0.70	0.44		0.49		0.52	0.72	0.25	0.36
Washington Park	0.62	0.86	1.1	0.56	1.0	0.63	0.71	0.50	0.29	0.37
Whiting High School						0.43	0.52	0.48	0.29	0.37

Figure 3.26 Yearly EPCs for Dichloromethane

3.26.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/methylen.html
http://www.atsdr.cdc.gov/tfacts14.html

3.27 1,2-DICHLOROPROPANE

3.27.1 GENERAL INFORMATION

1,2-Dichloropropane is a manufactured chemical that does not occur naturally. It is a colorless, flammable liquid with a chloroform-like odor. It is highly volatile and is moderately soluble in water. Most 1,2-dichloropropane is used to make tetrachloroethene. It is also used as an industrial solvent, in photographic film manufacture, for paper coating, and for petroleum catalyst regeneration.

Pollutant	RfC (mg/m^3)	Source
1,2-Dichloropropane	0.004	O(I)
CAS #	**RfC Rank**	**Target System**
78-87-5	4 of 53	Respiratory
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Propylene Dichloride	1.9x10^{-5}	O(R)
alpha,beta-Dichloropropane	**IUR Rank**	**WOE**
Propylene Chloride	10 of 24	N/A
	Acute RfC (mg/m^3)	**Source2**
	Mol. Weight	**Mol. Formula**
	112.99	$C_3H_6Cl_2$
	Valid Samples	**Detection Rate**
	3485	0.63%
	Priority	
	II	

3.27.2 1,2-DICHLOROPROPANE IN INDIANA

1,2-Dichloropropane has a very low detection rate statewide. In fact, it has only been detected in 22 of the 3,485 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,2-dichloropropane's impact on Indiana's air quality.

The reference concentration (RfC) for 1,2-dichloropropane was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for 1,2-dichloropropane is respiratory in nature. IRIS has not accessed the carcinogenicity of 1,2-dichloropropane. However, OAQPS route extrapolated an inhalation unit risk for 1,2-dichloropropane and this value was used in this study.

Detection rates for 1,2-dichloropropane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 5.5 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for 1,2-dichloropropane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,2-dichloropropane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, 1,2-dichloropropane has been placed in the second highest prioritization category, Category II.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.26%	392			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	428			
Gary Ivanhoe	1.6%	122			
Hammond CAAP	0.69%	437			
Ogden Dunes	0.67%	445			
Pierre Moran School	1.1%	348			
University of Evansville	0.78%	383			
Washington Park	1.2%	429			
Whiting High School	0.36%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.27 Yearly EPCs for 1,2-Dichloropropane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe	1.1									
Hammond CAAP										
Ogden Dunes										
Pierre Moran School	0.95									
University of Evansville	1.2									
Washington Park	0.96									
Whiting High School										

Figure 3.27 Yearly EPCs for 1,2-Dichloropropane

3.27.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts134.html
http://www.epa.gov/ttn/atw/hlthef/di-propa.html

3.28 C-1,3-DICHLOROPROPENE

3.28.1 GENERAL INFORMATION

1,3-Dichloropropene (both c- and t-) are by far the most common of the five forms of dichloropropene encountered. 1,3-Dichloropropenes are clear colorless liquids with a chloroform-like odor. They are highly flammable and insoluble in water. 1,3-Dichloropropenes are primary used on farms as a pesticide.

Pollutant	RfC (mg/m^3)	Source
c-1,3-Dichloropropene	N/A	-
CAS #	RfC Rank	Target System
10061-01-5	-	-
Synonyms	IUR ((µg/m^3)$^{-1}$)	Source
1,3-Dichloropropylene	N/A	-
3-Chloroallyl Chloride	IUR Rank	WOE
3-Chloropropenyl Chloride	-	
	Acute RfC (mg/m^3)	Source2
	Mol. Weight	Mol. Formula
	110.97	C$_3$H$_4$Cl$_2$
	Valid Samples	Detection Rate
	3211	0.09%
	Priority	
	IV	

3.28.2 C-1,3-DICHLOROPROPENE IN INDIANA

c-1,3-Dichloropropene has a very low detection rate statewide. In fact, it has only been detected in 3 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about c-1,3-dichloropropene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for c-1,3-dichloropropene. No other source in the toxicity heirarchy had a RfC available. The critical effect for c-1,3-dichloropropene could not be determined. IRIS has not accessed the carcinogenicity of c-1,3-dichloropropene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for c-1,3-dichloropropene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for c-1,3-dichloropropene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in c-1,3-dichloropropene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively low MDL, c-1,3-dichloropropene has been placed in the second lowest prioritization category, Category IV.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.28%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0%	397			
Pierre Moran School	0%	316			
University of Evansville	0.28%	359			
Washington Park	0%	387			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.28 Yearly EPCs for c-1,3-Dichloropropene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				**N/A**						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.28 Yearly EPCs for c-1,3-Dichloropropene

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.28.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts40.html
http://cameochemicals.noaa.gov/chemical/18110
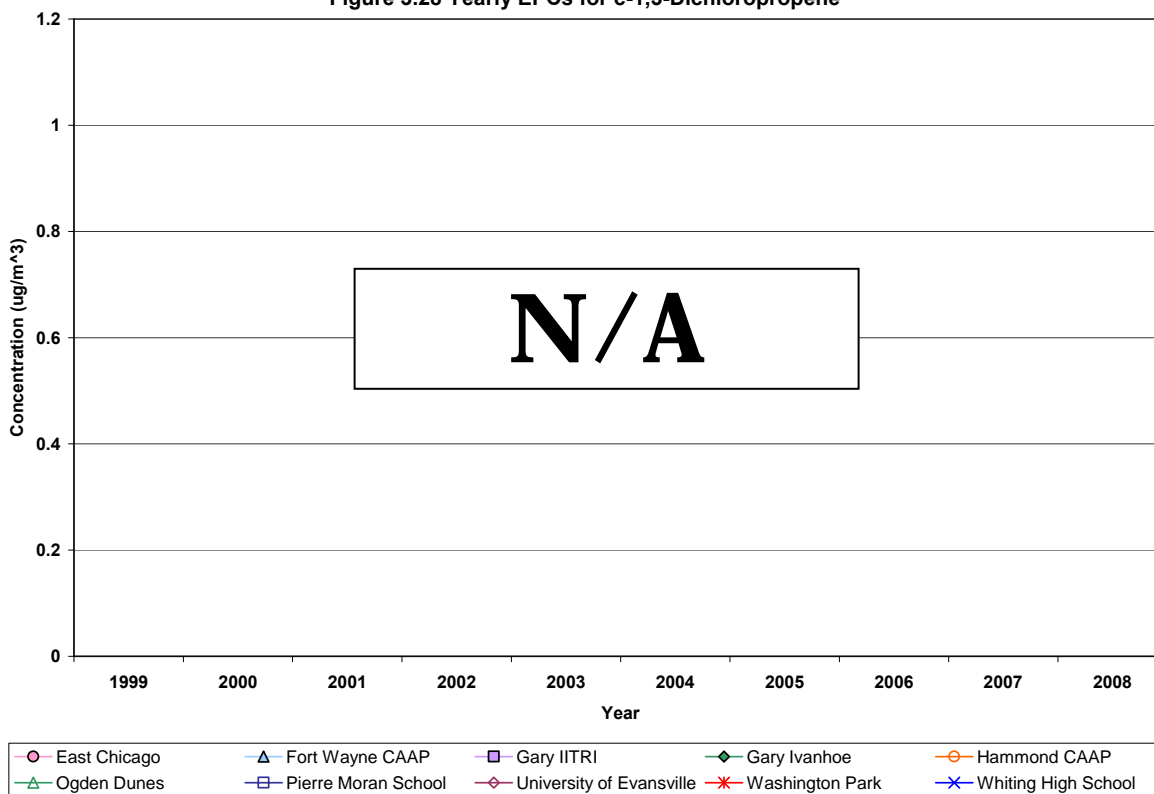
3.29 T-1,3-DICHLOROPROPENE

3.29.1 GENERAL INFORMATION

1,3-Dichloropropene (both c- and t-) are by far the most common of the five forms of dichloropropene encountered. 1,3-Dichloropropenes are clear colorless liquids with a chloroform-like odor. They are highly flammable and insoluble in water. 1,3-Dichloropropenes are primarily used on farms as a pesticide.

3.29.2 T-1,3-DICHLOROPROPENE IN INDIANA

Pollutant	RfC (mg/m^3)	Source
t-1,3-Dichloropropene	0.02	L(IDEM)
CAS #	**RfC Rank**	**Target System**
10061-02-6	9 of 53	-
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
1,3-Dichloropropylene	4×10^{-6}	L(IDEM)
3-Chloroallyl Chloride	**IUR Rank**	**WOE**
3-Chloropropenyl Chloride	18 of 24	
	Acute RfC (mg/m^3)	**Source2**
	Mol. Weight	**Mol. Formula**
	110.97	$C_3H_4Cl_2$
	Valid Samples	**Detection Rate**
	3211	0.19%
Priority		
III		

t-1,3-Dichloropropene has a very low detection rate statewide. In fact, it has only been detected in 6 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about t-1,3-dichloropropene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for t-1,3-dichloropropene. However, IDEM's Office of Land Quality had a RfC for t-1,3-dichloropropene and this value was used for this study. The critical effect for t-1,3-dichloropropene could not be determined. IRIS has not accessed the carcinogenicity of t-1,3-dichloropropene. However, IDEM's Office of Land Quality had an inhalation unit risk for t-1,3-dichloropropene and this value was used in this study.

Detection rates for t-1,3-dichloropropene were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 1.2 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.
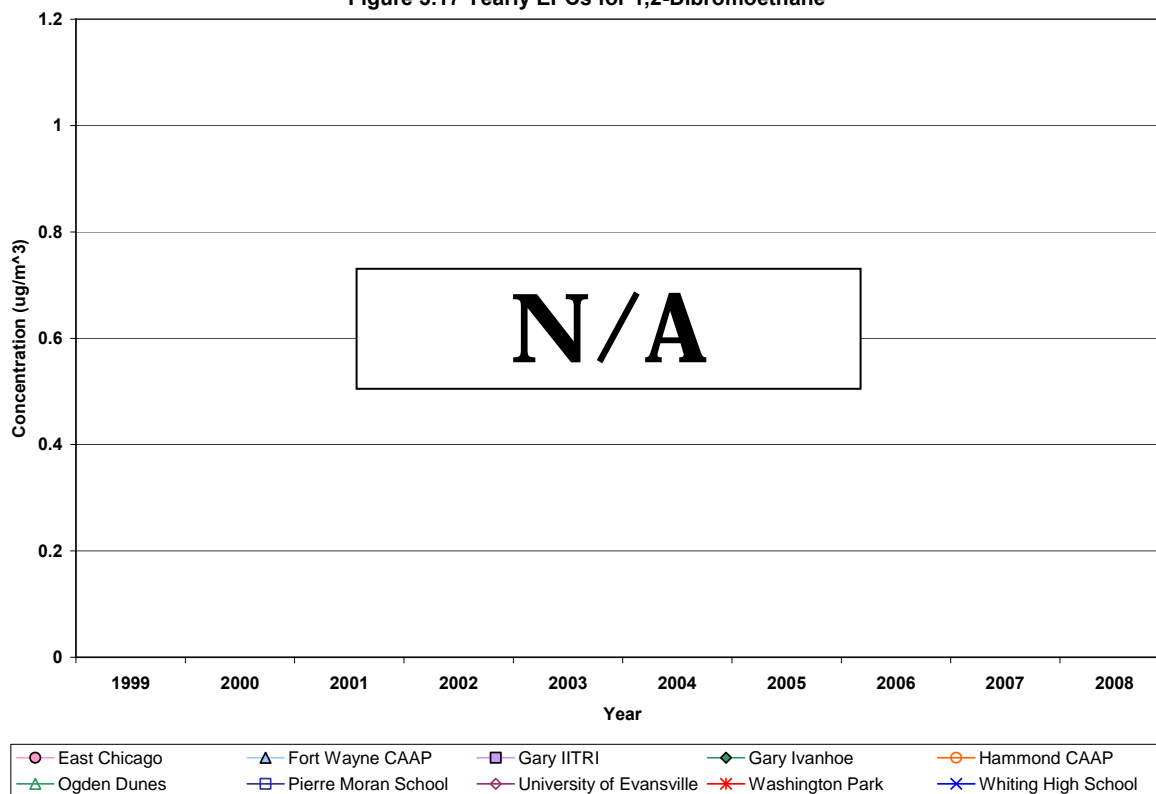
Detection rates for t-1,3-dichloropropene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in t-1,3-dichloropropene concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.51%	392			
Ogden Dunes	0%	397			
Pierre Moran School	0.32%	316			
University of Evansville	0.84%	359			
Washington Park	0%	387			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and somewhat high MDL, t-1,3-dichloropropene has been placed in the middle prioritization category, Category III.

Table 3.29 Yearly EPCs for t-1,3-Dichloropropene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.29 Yearly EPCs for t-1,3-Dichloropropene

3.29.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts40.html
http://cameochemicals.noaa.gov/chemical/18110

3.30 DICHLOROTETRAFLUOROETHANE (F-114)

3.30.1 GENERAL INFORMATION

Dichlorotetrafluoroethane is a colorless gas that turns into a liquid at temperatures below 38°F. It has an ether-like odor and is nonflammable It is used as a refrigerant, an aerosol propellant, in fire extinguishers, and in medicine for skin freezing.

Pollutant	RfC (mg/m³)	Source
Dichlorotetrafluoroethane	N/A	-
CAS #	**RfC Rank**	**Target System**
76-14-2	-	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
	N/A	-
	IUR Rank	**WOE**
	-	
	Acute RfC (mg/m³)	**Source4**
	Mol. Weight	**Mol. Formula**
	170.92	$C_2Cl_2F_4$
	Valid Samples	**Detection Rate**
	3924	1.73%
	Priority	
	II	

3.30.2 DICHLOROTETRAFLUOROETHANE IN INDIANA

Dichlorotetrafluoroethane is not a commonly detected pollutant in Indiana's air. It has only been detected in about 2% of the 3,924 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about dichlorotetrafluoroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for dichlorotetrafluoroethane. No other source in the toxicity heirarchy had a RfC available. As such, the critical effect for dichlorotetrafluoroethane could not be determined. IRIS has not accessed the carcinogenicity of dichlorotetrafluoroethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for dichlorotetrafluoroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. Without toxicity data for the pollutant, it would be impossible to say whether the calculated exposure concentrations posed a risk or not.

Detection rates for dichlorotetrafluoroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in dichlorotetrafluoroethane concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.89%	450			
Fort Wayne CAAP	0.79%	254			
Gary IITRI	1.2%	488			
Gary Ivanhoe	2.6%	154			
Hammond CAAP	1.8%	491			
Ogden Dunes	1.6%	505			
Pierre Moran School	3%	398			
University of Evansville	1.2%	428			
Washington Park	3.5%	481			
Whiting High School	0.36%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
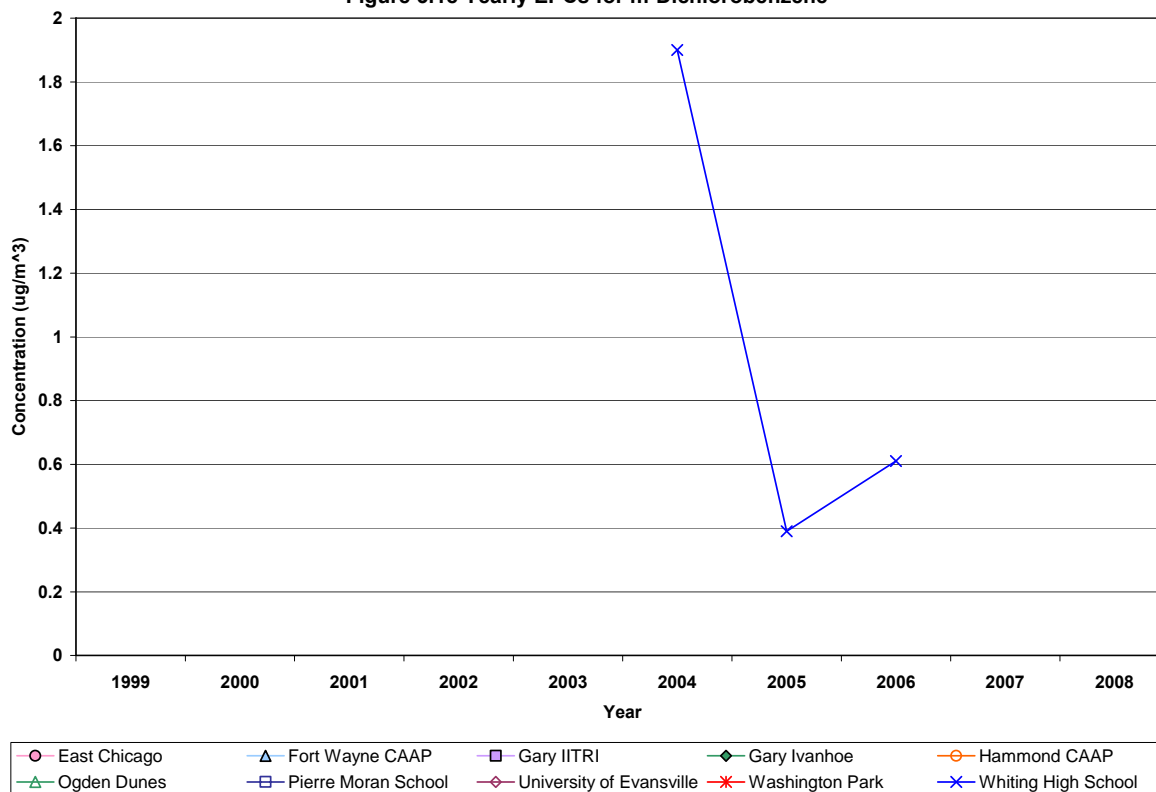HQ = Hazard Quotient; RE = Risk Estimate

There is basically no information avaliable about dichlorotetrafluoroethane. Detection rates are insufficient to calculate exposure concentrations or concentration trends. Additionally, neither carcinogenic nor non-carcinogenic toxicity data is available. This complete lack of information about the pollutant is the reason it has been placed in the second highest prioritization category, Category II.

Table 3.30 Yearly EPCs for Dichlorotetrafluoroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe	3.1									
Hammond CAAP	1.2									
Ogden Dunes										
Pierre Moran School	3.0									
University of Evansville	2.9									
Washington Park	2.7									
Whiting High School										

Figure 3.30 Yearly EPCs for Dichlorotetrafluoroethane

3.30.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/0671.pdf
http://www.cdc.gov/niosh/npg/npgd0201.html
http://dnr.wi.gov/air/emission/nr438/pollutants/196.htm
http://cameochemicals.noaa.gov/chemical/3168

3.31 1,4-DIOXANE

3.31.1 GENERAL INFORMATION

1,4-Dioxane occurs as a colorless, flammable liquid, with a faint pleasant odor, that is soluble in water. 1,4-Dioxane is used as a solvent for cellulose acetate, ethyl cellulose, benzyl cellulose, resins, oils, waxes, some dyes. 1,4-Dioxane is released to the environment through its manufacture and use.

Pollutant	RfC (mg/m^3)	Source
1,4-Dioxane	3.6	O(A)
CAS #	**RfC Rank**	**Target System**
123-91-1	46 of 53	Hepatic
Synonyms	**IUR ((μg/m^3)$^{-1}$)**	**Source**
Diethylene Oxide	7.7x10^{-6}	O(C)
Diethylene Dioxide	**IUR Rank**	**WOE**
p-Dioxane	16 of 24	B2
	Acute RfC (mg/m^3)	**Source2**
	7.2	O(A)
	Mol. Weight	**Mol. Formula**
	88.11	$C_4H_8O_2$
	Valid Samples	**Detection Rate**
	2803	4.67%
	Priority	
	II	

3.31.2 1,4-DIOXANE IN INDIANA

1,4-Dioxane is not a commonly detected pollutant in Indiana's air. It has only been detected in about 5% of the 2,803 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,4-dioxane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,4-dioxane. However, ATSDR had a chronic MRL for 1,4-dioxane and this value was used as the RfC for this study. The critical effect for 1,4-dioxane is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of 1,4-dioxane places it in Category B2. This means that 1,4-dioxane is a probable human carcinogen based on adequate animal test data. IRIS does not currently list an inhalation unit risk (IUR) for the pollutant. However, Cal/EPA contained an IUR for 1,4-dioxane and this value was used in this study.

Detection rates were too low to calculate exposure concentrations for most monitoring locations. The exception to this was the Gary Ivanhoe and Whiting High School monitoring locations. The median MDL for 1,4-dioxane corresponds to an increased cancer risk of 3.7 in 1,000,000. Gary Ivanhoe's risk estimate was 26 in 1,000,000. It should be noted that sampling ended at the Gary Ivanhoe monitor in 2003, so these concentration may not accurately represent the true risk posed by 1,4-dioxane at the site.

Detection rates for 1,4-dioxane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,4-dioxane concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	4.6%	329			
Fort Wayne CAAP	3.5%	226			
Gary IITRI	6.1%	342			
Gary Ivanhoe	9.6%	52		0.00094	2.6x10^{-5}
Hammond CAAP	4.1%	345			
Ogden Dunes	3.6%	332			
Pierre Moran School	3%	266			
University of Evansville	2.6%	310			
Washington Park	5.5%	325			
Whiting High School	8%	275		0.000067	1.8x10^{-6}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
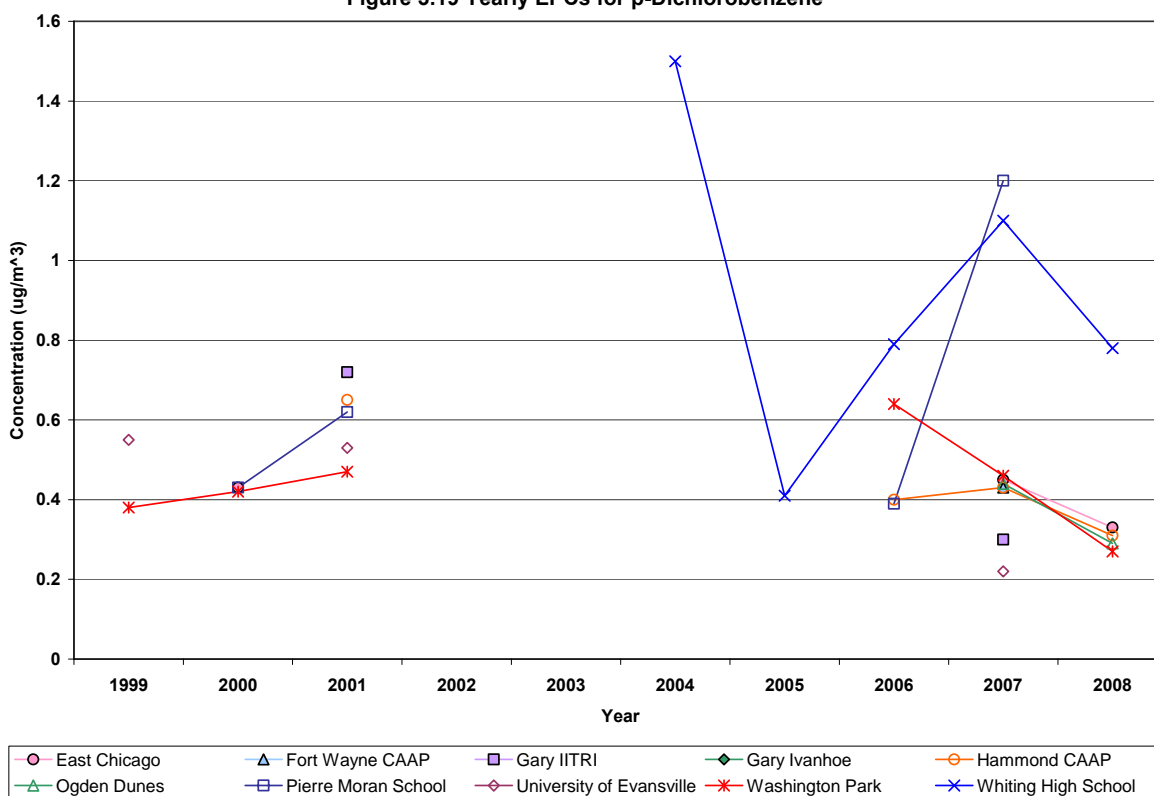HQ = Hazard Quotient; RE = Risk Estimate

Due to the low detection rate, lack of trend data, relatively high MDLs, and relatively high exposure concentration at the Gary Ivanhoe monitor, 1,4-Dioxane has been placed in the second highest prioritization category, Category II.

Table 3.31 Yearly EPCs for 1,4-Dioxane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.26	0.15
Fort Wayne CAAP									0.42	
Gary IITRI									0.25	0.15
Gary Ivanhoe				3.4						
Hammond CAAP									0.52	0.33
Ogden Dunes									0.24	
Pierre Moran School									0.33	
University of Evansville									0.22	
Washington Park									0.57	0.21
Whiting High School									0.24	0.42

Figure 3.31 Yearly EPCs for 1,4-Dioxane

3.31.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/dioxane.html
http://www.atsdr.cdc.gov/tfacts187.html

3.32 ETHANOL

3.32.1 GENERAL INFORMATION

Ethanol, also known as ethyl alcohol, is a clear, colorless liquid with a strong odor and a bitter taste. Ethanol is used as a solvent and in the manufacture of alcoholic beverages. It is also increasingly being used as a replacement, in whole or in part, for gasoline in automobiles and other internal combustion engines.

Pollutant	RfC (mg/m³)	Source
Ethanol	100	L(IDEM)
CAS #	**RfC Rank**	**Target System**
64-17-5	53 of 53	Respiratory
Synonyms	**IUR ((μg/m³)⁻¹)**	**Source**
Ethyl Alchohol	N/A	-
	IUR Rank	**WOE**
	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	46.07	C_2H_6O
	Valid Samples	**Detection Rate**
	3242	80.57%
	Priority	
	V	

3.32.2 ETHANOL IN INDIANA

Detections of ethanol are a common occurrence at ToxWatch monitors across the state. It has been found in about 8 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about ethanol.

IRIS did not contain a reference concentration (RfC) for ethanol. However, IDEM's Office of Land Quality had a RfC for ethanol and this value was used for this study. This makes ethanol the least toxic compound in the ToxWatch study. The critical effect for ethanol is respiratory in nature. IRIS has not accessed the carcinogenicity of ethanol. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for ethanol ranged from 27 μg/m³ to 52 μg/m³. These concentrations indicate that ethanol has the highest concentration (by weight) of any pollutant in the ToxWatch Study. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 2,000 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for ethanol at every monitoring location analyzed for this report. Concentration trends across the state appear to be steady for the most part.

Due to the high detection rate, steady trends, and relatively low hazard quotients, ethanol has been placed in the lowest prioritization category, Category V.

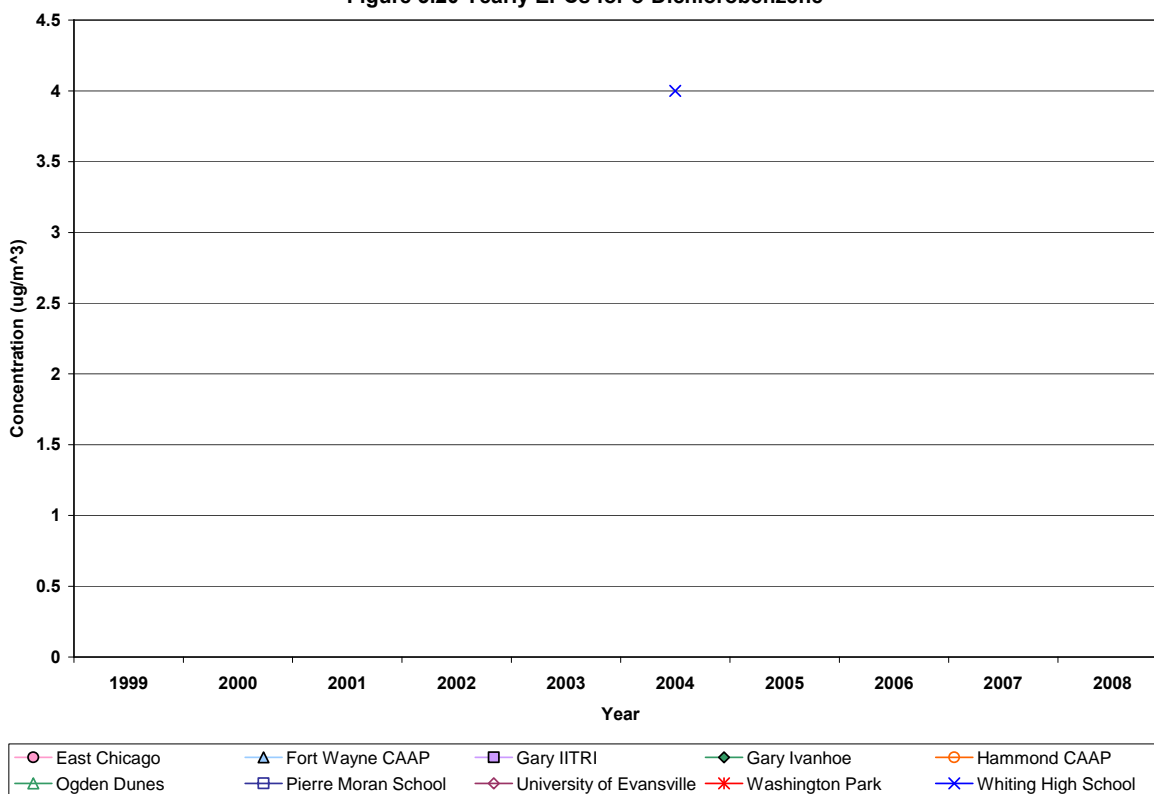| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	80%	387	↘	0.0003	
Fort Wayne CAAP	75%	254	↔	0.00033	
Gary IITRI	82%	402	↔	0.00028	
Gary Ivanhoe	94%	84	↔	0.00051	
Hammond CAAP	85%	399	↔	0.00052	
Ogden Dunes	82%	392	↘	0.00027	
Pierre Moran School	79%	316	↔	0.00027	
University of Evansville	74%	355	↔	0.00038	
Washington Park	79%	377	↔	0.00031	
Whiting High School	84%	275	↗	0.00048	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.32 Yearly EPCs for Ethanol

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago				41	71	24	13	26	24	39
Fort Wayne CAAP					120	24	13	40	25	
Gary IITRI				44	38	29	13	40	29	41
Gary Ivanhoe				55	50					
Hammond CAAP				100	77	38	26	50	67	67
Ogden Dunes				35	55	22	13	31	35	21
Pierre Moran School				46	34	15	15	52	34	
University of Evansville				44	100	14	15	37	18	89
Washington Park				48	53	32	9.7	33	49	31
Whiting High School						29	22	63	98	54

Figure 3.32 Yearly EPCs for Ethanol

3.32.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/0844.pdf
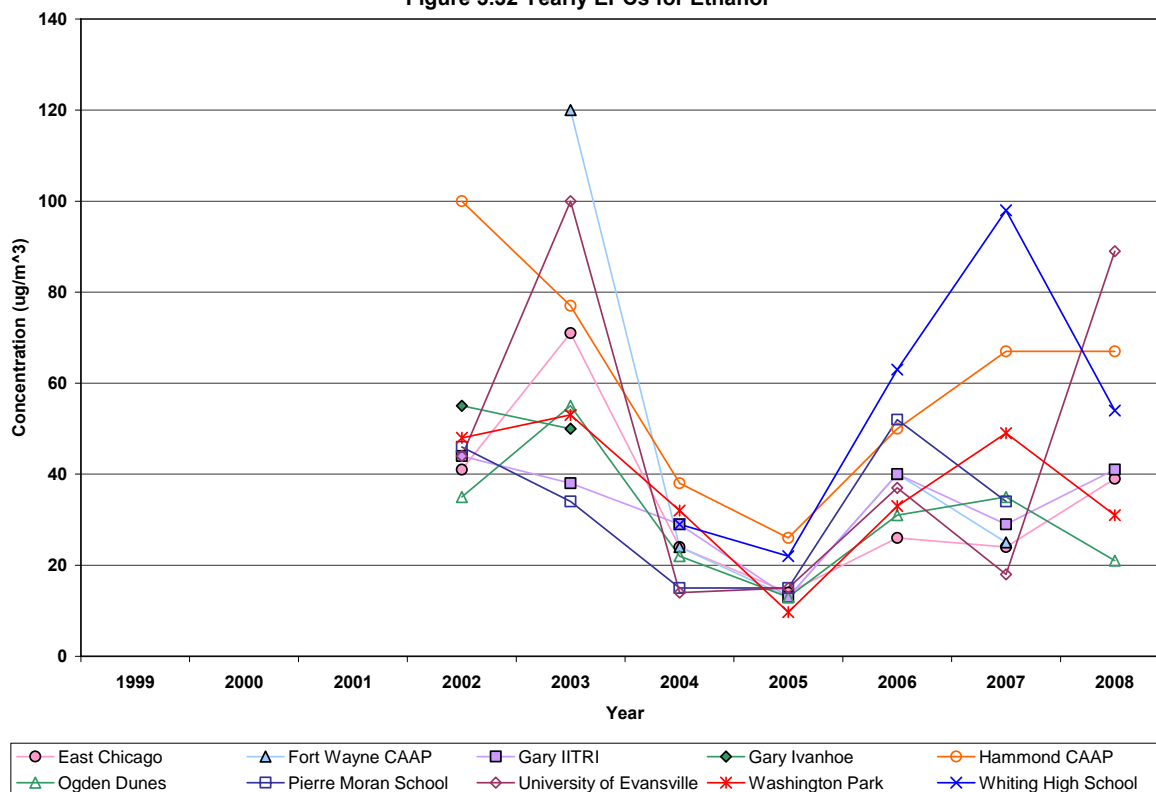
3.33 ETHYL ACETATE

3.33.1 GENERAL INFORMATION

Ethyl acetate is a clear, colorless, flammable liquid with a pleasant, fruity odor. It is highly flammable and only slightly soluble in water. Ethyl acetate is used as a solvent, a synthetic flavoring device, and in making perfumes and dyes. It is also used to remove caffeine from coffee beans and tea leaves.

Pollutant	RfC (mg/m³)	Source
Ethyl Acetate	0.37	ACGIH
CAS #	**RfC Rank**	**Target System**
141-78-6	26 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Acetic Ether Acetoxyethane	N/A	-
	IUR Rank	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	88.11	$C_4H_8O_2$
	Valid Samples	**Detection Rate**
	3242	33.41%
Priority		
III		

3.33.2 ETHYL ACETATE IN INDIANA

Detections of ethyl acetate are a moderately common occurrence at ToxWatch monitors. It has been detected in about 33% of the 3,242 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for ethyl acetate. However, ACGIH had a TLV for ethyl acetate and this value was used to derive a RfC for this study. The critical effect for ethyl acetate could not be determined. IRIS has not accessed the carcinogenicity of ethyl acetate. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for ethyl acetate ranged from 0.25 µg/m³ to 0.56 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the East Chicago monitor, represents a value 700 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for Ethyl Acetate at nearly all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear, in almost all cases, to be increasing.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	40%	387	↗	0.0015	
Fort Wayne CAAP	34%	254	↗	0.0011	
Gary IITRI	25%	402	↗	0.0011	
Gary Ivanhoe	11%	84		0.00068	
Hammond CAAP	39%	399	↗	0.0014	
Ogden Dunes	22%	392		0.001	
Pierre Moran School	30%	316	↗	0.0014	
University of Evansville	29%	355	↗	0.00086	
Washington Park	42%	377	↔	0.00097	
Whiting High School	49%	275	↗	0.0015	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
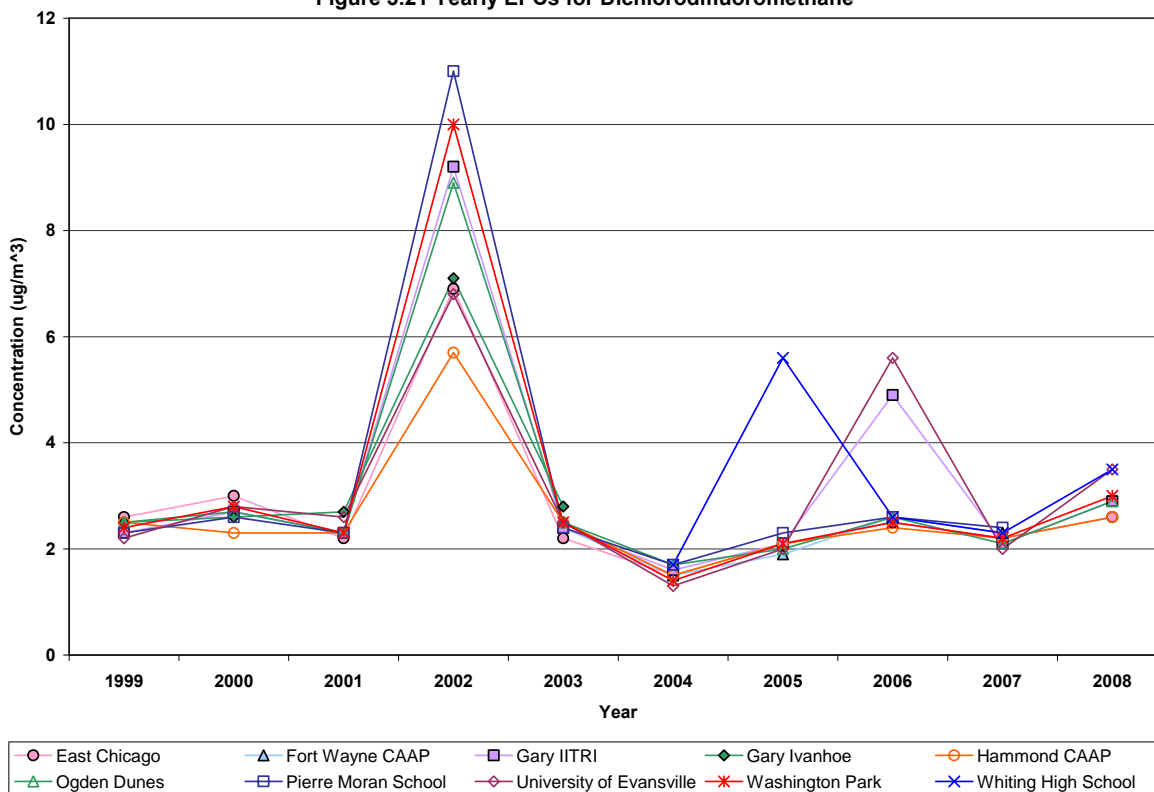HQ = Hazard Quotient; RE = Risk Estimate

Due to the relatively low detection rate, lack of reliable trend data, consistent increasing trends, and relatively low exposure concentrations, Ethyl Acetate has been placed in the second highest prioritization category, Category II.

Table 3.33 Yearly EPCs for Ethyl Acetate

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago				0.42	0.47	0.33	0.47	1.2	0.73	0.36
Fort Wayne CAAP					0.19		0.47	0.69	0.55	
Gary IITRI							1.4	0.73	0.35	0.20
Gary Ivanhoe				0.29	0.26					
Hammond CAAP				0.47	0.22	0.31	0.82	1.1	0.97	0.29
Ogden Dunes							1.4	0.47	0.38	0.20
Pierre Moran School						0.25	1.6	0.68	0.45	
University of Evansville				0.55			0.47	0.61	0.53	0.29
Washington Park				0.53	0.73		0.51	0.40	0.49	0.23
Whiting High School						0.33	1.1	0.78	0.56	0.23

Figure 3.33 Yearly EPCs for Ethyl Acetate

3.33.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/0841.pdf
http://cameochemicals.noaa.gov/chemical/665
http://www.osha.gov/SLTC/healthguidelines/ethylacetate/recognition.html

3.34 ETHYLBENZENE

3.34.1 GENERAL INFORMATION

Ethylbenzene is a colorless, flammable liquid that odors like gasoline. Ethylbenzene is found in coal tar and petroleum as well as manufactured products like inks, pesticides, and paints. It is used primarily in the production of styrene. It is also used as a solvent, as a constituent of asphalt and naphtha, and in fuels.

Pollutant	RfC (mg/m³)	Source
Ethylbenzene	1	O(I)
CAS #	**RfC Rank**	**Target System**
100-41-4	36 of 53	Reproductive
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Aethylbenzol Phenylethane	2.5×10^{-6}	C
	IUR Rank	**WOE**
	19 of 24	D
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	106.17	C_8H_{10}
	Valid Samples	**Detection Rate**
	4341	66.3%
	Priority	
	IV	

3.34.2 ETHYLBENZENE IN INDIANA

Detections of ethylbenzene are a moderately common occurrence at ToxWatch monitors. It has been detected in about 66% of the 4,341 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for ethylbenzene was found in IRIS. U.S. EPA has low confidence in this RfC. The critical effect for ethylbenzene is reproductive in nature. U.S. EPA's weight of evidence (WOE) classification of ethylbenzene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of ethylbenzene. However, Cal/EPA contained an inhalation unit risk for ethylbenzene and this value was used in this study.

Exposure concentrations calculated for ethylbenzene ranged from 0.26 µg/m³ to 0.60 µg/m³. These concentrations are well below levels that could pose a hazard to human health from a carcinogenic standpoint. However, several monitors exceed U.S. EPA's 1 in 1,000,000 risk level.

Detection rates were sufficient to conduct concentration trend analysis for ethylbenzene at every monitoring location analyzed for this report. However, many of the monitoring locations did not have sufficient detection rates to place high confidence on the trend analysis. Monitors show a strong decreasing trend in ethylbenzene concentrations across the state.

Due to the relatively low detection rate, lack of reliable trend data, apparent decreasing trends, and relatively low exposure concentrations, ethylbenzene has been placed in the second lowest prioritization category, Category IV.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	62%	504	↘	0.00036	9.0×10^{-7}
Fort Wayne CAAP	65%	254	↗	0.00026	6.5×10^{-7}
Gary IITRI	53%	541	↘	0.00035	8.8×10^{-7}
Gary Ivanhoe	78%	206	↘	0.00037	9.2×10^{-7}
Hammond CAAP	76%	547	↘	0.00047	1.2×10^{-6}
Ogden Dunes	45%	557	↘	0.0003	7.5×10^{-7}
Pierre Moran School	81%	445	↘	0.00052	1.3×10^{-6}
University of Evansville	67%	479	↘	0.00045	1.1×10^{-6}
Washington Park	83%	532	↘	0.0006	1.5×10^{-6}
Whiting High School	60%	275	↔	0.00027	6.8×10^{-7}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.34 Yearly EPCs for Ethylbenzene
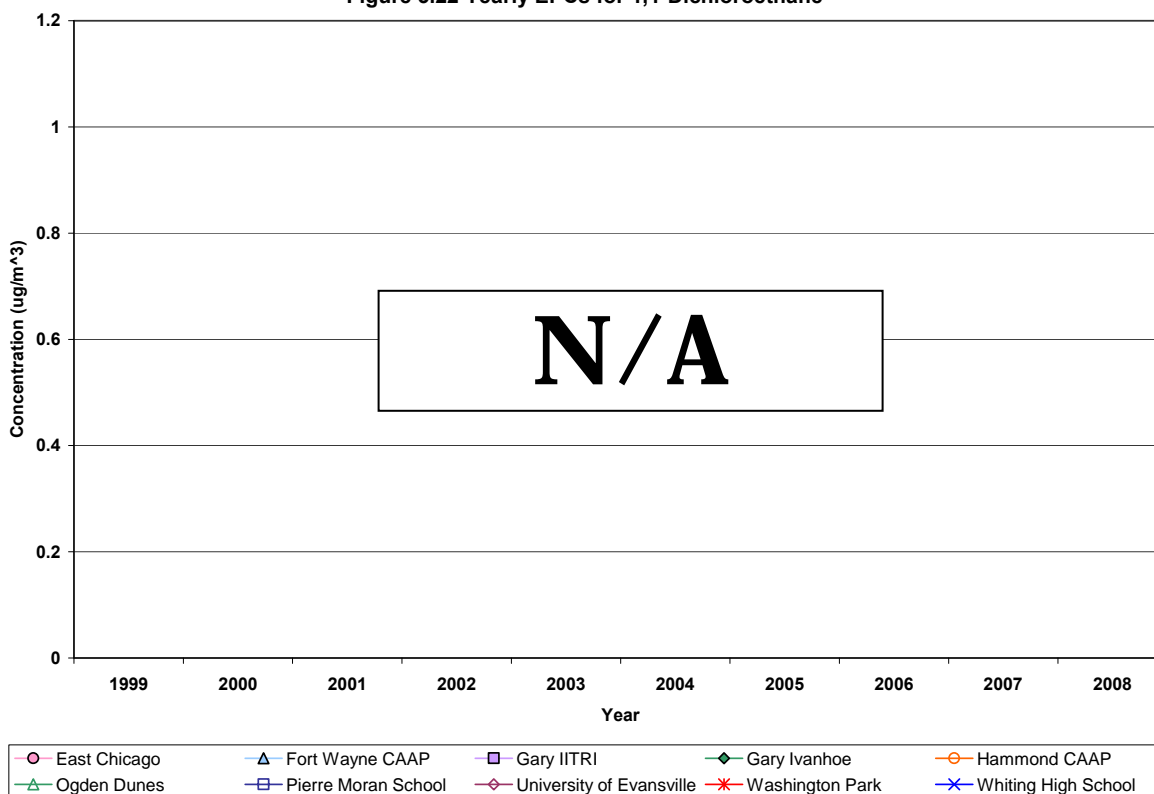
Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.61	0.66	0.95	0.27	0.26	0.68	0.30	0.33	0.22	0.29
Fort Wayne CAAP					0.24	0.35	0.30	0.28	0.22	
Gary IITRI	0.36	0.35	1.8	0.20	0.16	0.28	0.21	0.35	0.17	0.23
Gary Ivanhoe	0.69	0.52	0.48	0.23	0.22					
Hammond CAAP	0.64	1.2	0.89	0.37	0.37	0.41	0.42	0.37	0.38	0.46
Ogden Dunes	0.37	0.30	1.5	0.20	0.14	0.25	0.16	0.18	0.17	
Pierre Moran School	0.95	0.84	1.3	0.42	0.42	0.43	0.41	0.42	0.31	
University of Evansville	0.72	1.1	1.0	0.26	0.29	0.40	0.35	0.53	0.40	0.46
Washington Park	1.1	1.1	1.0	0.51	0.62	0.52	0.57	0.59	0.45	0.47
Whiting High School						0.39	0.31	0.31	0.26	0.31

Figure 3.34 Yearly EPCs for Ethylbenzene

3.34.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts110.html
http://www.epa.gov/ttn/atw/hlthef/ethylben.html

3.35 P-ETHYLTOLUENE

3.35.1 GENERAL INFORMATION

p-Ethyltoluene is a colorless, flammable liquid. p-Ethyltoluene's primary use is as a component of gasoline but it is also used in small amounts as an industrial solvent. Most p-ethyltoluene will enter the environment through fugitive emissions from oil refineries or through incomplete combustion of gasoline in automobiles.

Pollutant	RfC (mg/m³)	Source
p-Ethyltoluene	N/A	-
CAS #	**RfC Rank**	**Target System**
622-96-8	-	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
1,4-ethyltoluene	N/A	-
para-Ethyltoluene	**IUR Rank**	**WOE**
	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	120.19	C_9H_{12}
	Valid Samples	**Detection Rate**
	4341	30.59%
	Priority	
	III	

3.35.2 P-ETHYLTOLUENE IN INDIANA

Detections of p-Ethyltoluene are a moderately common occurrence at ToxWatch monitors. It has been found in about 3 out of 10 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

No toxicity information could be found for p-ethyltoluene. IRIS did not have an entry for p-ethyltoluene and no other source in the toxicity heirarchy provided inhalation toxicity information. As such, no conclusions can be drawn about p-ethyltoluene's impact on human health.

Exposure concentrations calculated for p-ethyltoluene ranged from 0.24 µg/m³ to 1.9 µg/m³, though all monitoring locations except for Gary Ivanhoe had EPCs well below 1.0 µg/m³. There is no way to say whether these levels are health protective or not.

Concentration trend analysis was possible for some but not all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be decreasing for the most part.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	26%	504	↘		
Fort Wayne CAAP	18%	254			
Gary IITRI	20%	541			
Gary Ivanhoe	45%	206	↘		
Hammond CAAP	32%	547	↘		
Ogden Dunes	18%	557			
Pierre Moran School	44%	445	↘		
University of Evansville	37%	479	↘		
Washington Park	47%	532	↘		
Whiting High School	20%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate
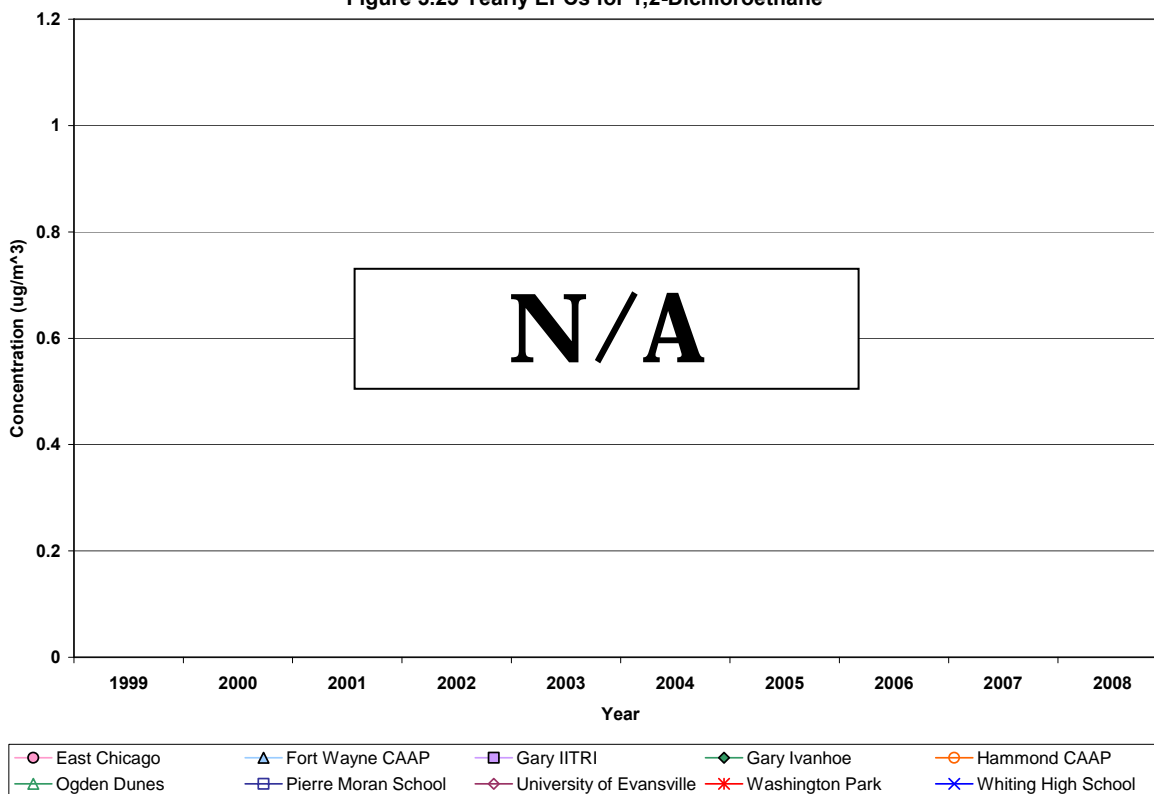
Due to the relatively low detection rate, lack of complete and reliable trend data, apparent decreasing trends, and lack of any toxicity data, p-ethyltoluene has been placed in the middle prioritization category, Category III.

Table 3.35 Yearly EPCs for p-Ethyltoluene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.42	0.61	0.85				0.31	0.29	0.23	
Fort Wayne CAAP							0.31	0.30	0.21	
Gary IITRI	0.35	0.80	0.54				0.27	0.28	0.60	
Gary Ivanhoe	19	0.47	0.79							
Hammond CAAP	0.35	0.67	0.67	0.27			0.44	0.42	0.24	0.23
Ogden Dunes	0.32	0.27	0.68				0.26	0.27		
Pierre Moran School	2.2	0.72	1.9	0.49	0.35	0.35	0.41	0.44	0.23	
University of Evansville	3.3	2.3	1.2			0.37	0.43	0.40	0.23	0.33
Washington Park	0.63	0.74	0.89	0.40	0.44	0.46	0.49	0.57	0.27	0.31
Whiting High School						0.33	0.35	0.34	0.2	

Figure 3.35 Yearly EPCs for p-Ethyltoluene

3.35.3 REFERENCES

http://www.environment-agency.gov.uk/business/topics/pollution/39203.aspx

3.36 HEPTANE

3.36.1 GENERAL INFORMATION

Heptane is a clear colorless liquid with a petroleum-like odor. It is highly flammable and is insoluble in water. Heptane is used as a carrier and solvent for adhesives and in petroleum refining processes. It is also a component of gasoline and other petroleum-based fuels.

Pollutant	RfC (mg/m³)	Source
Heptane	0.43	ACGIH
CAS #	RfC Rank	Target System
142-82-5	28 of 53	-
Synonyms	IUR ((μg/m³)⁻¹)	Source
Heptyl Hydride	N/A	-
	IUR Rank	WOE
	-	D
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	100.2	C_7H_{16}
	Valid Samples	Detection Rate
	4341	69.06%
	Priority	
	V	

3.36.2 HEPTANE IN INDIANA

Detections of Heptane are a moderately common occurrence at ToxWatch monitors. It has been found in about 7 out of 10 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for heptane. However, ACGIH had a TLV for heptane and this value was used to derive a RfC for this study. The critical effect for heptane could not be determined. U.S. EPA's weight of evidence (WOE) classification of heptane places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of heptane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for heptane ranged from 0.28 μg/m³ to 0.86 μg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 500 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for heptane at every monitoring location analyzed for this report. However, several of the monitoring locations did not have sufficient detection rates to place high confidence on the trend analysis. Concentration trends across the state appear to be decreasing for the most part.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	73%	504	↘	0.0012	
Fort Wayne CAAP	51%	254	↗	0.00065	
Gary IITRI	62%	541	↗	0.00067	
Gary Ivanhoe	78%	206	↘	0.001	
Hammond CAAP	82%	547	↔	0.002	
Ogden Dunes	56%	557	↘	0.00065	
Pierre Moran School	69%	445	↘	0.0011	
University of Evansville	66%	479	↘	0.0011	
Washington Park	75%	532	↘	0.0013	
Whiting High School	80%	275	↗	0.0014	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the relatively low detection rate, lack of reliable trend data, apparent decreasing trends, and relatively low exposure concentrations, Heptane has been placed in the lowest prioritization category, Category V.

Table 3.36 Yearly EPCs for Heptane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.63	1.2	1.2	0.43	0.27	0.55	0.25	0.64	0.43	0.42
Fort Wayne CAAP					0.17	0.35	0.25	0.36	0.33	
Gary IITRI	0.36	0.38	0.47	0.28	0.19	0.30	0.24	0.38	0.36	0.41
Gary Ivanhoe	0.60	0.62	0.61	0.30	0.26					
Hammond CAAP	0.92	2.3	1.7	0.63	0.46	0.54	0.61	1.0	0.86	0.75
Ogden Dunes	0.30	0.33	0.55	0.52	0.22	0.24	0.23	0.33	0.27	0.22
Pierre Moran School	1.2	0.67	0.86	0.29	0.24	0.35	0.51	0.64	0.41	
University of Evansville	0.82	0.97	0.81	0.27	0.22	0.32	0.36	0.93	0.40	0.46
Washington Park	0.93	0.98	0.96	0.40	0.40	0.48	0.39	0.74	0.46	0.49
Whiting High School						0.43	0.71	0.77	0.74	0.67

Figure 3.36 Yearly EPCs for Heptane

3.36.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/1339.pdf
http://cameochemicals.noaa.gov/chemical/831
http://www.osha.gov/SLTC/healthguidelines/heptane/recognition.html

3.37 HEXACHLOROBUTADIENE

3.37.1 GENERAL INFORMATION

Hexachlorobutadiene is a manufactured chemical that does not occur naturally. It is a colorless liquid with a turpentine-like odor. Hexachlorobutadiene is mainly used to make rubber compounds. It is also used as a solvent, and to make lubricants, in gyroscopes, as a heat transfer liquid, and as a hydraulic fluid. Release to the environment occurs mainly from its disposal after industrial use.

Pollutant	RfC (mg/m³)	Source
Hexachlorobutadiene	0.09	O(C)
CAS #	**RfC Rank**	**Target System**
87-68-3	15 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
1,3- Hexachlorobutadiene	2.2×10^{-5}	O(I)
Perchlorobutadiene	**IUR Rank**	**WOE**
HCBD	9 of 24	C
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	260.76	C_4Cl_6
	Valid Samples	**Detection Rate**
	3628	0.88%
Priority		
III		

3.37.2 HEXACHLOROBUTADIENE IN INDIANA

Hexachlorobutadiene has a very low detection rate statewide. In fact, it has only been detected in 32 of the 3,628 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about hexachlorobutadiene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for hexachlorobutadiene. However, Cal/EPA had a RfC for hexachlorobutadiene and this value was used for this study. The critical effect for hexachlorobutadiene could not be determined. U.S. EPA's weight of evidence (WOE) classification of hexachlorobutadiene places it in Category C. This means that hexachlorobutadiene is a possible human carcinogen based on limited animal and/or human test data.

Detection rates for hexachlorobutadiene were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 15 in 1,000,000. This is well above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for hexachlorobutadiene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in hexachlorobutadiene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, Hexachlorobutadiene has been placed in the middle prioritization category, Category III.

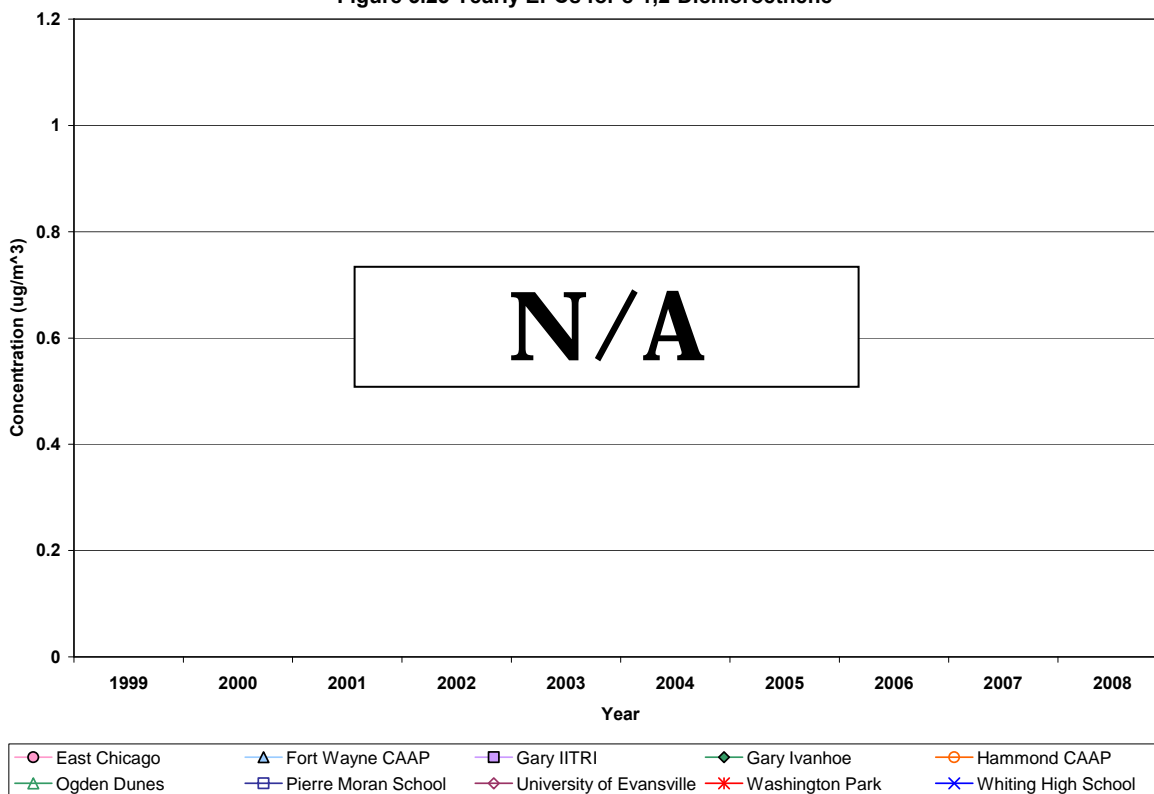| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.48%	417			
Fort Wayne CAAP	1.8%	226			
Gary IITRI	0.9%	444			
Gary Ivanhoe	0.64%	157			
Hammond CAAP	1.1%	448			
Ogden Dunes	0.89%	449			
Pierre Moran School	0.83%	363			
University of Evansville	0.49%	410			
Washington Park	0.68%	438			
Whiting High School	1.5%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.37 Yearly EPCs for Hexachlorobutadiene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.37 Yearly EPCs for Hexachlorobutadiene

3.37.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts42.html
http://www.epa.gov/ttn/atw/hlthef/hexa-but.html

3.38 HEXANE

3.38.1 GENERAL INFORMATION

Hexane is a colorless volatile liquid that is insoluble in water and highly flammable. The main use of hexane is as a solvent to extract edible oils from seed and vegetable crops (e.g., soybeans, peanuts, corn). Commercial grades of hexane are used as solvents for glues (rubber cement, adhesives), varnishes, and inks. Hexane is also used as a cleaning agent (degreaser) in the printing industry.

Pollutant	RfC (mg/m³)	Source
Hexane	0.7	O(I)
CAS #	**RfC Rank**	**Target System**
110-54-3	32 of 53	Neurological
Synonyms	**IUR ((μg/m³)⁻¹)**	**Source**
Hexyl Hydride	N/A	-
	IUR Rank	**WOE**
	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	86.18	C_6H_{14}
	Valid Samples	**Detection Rate**
	4341	77.1%
	Priority	
	V	

3.38.2 HEXANE IN INDIANA

Detections of Hexane are a moderately common occurrence at ToxWatch monitors. It has been detected in about 77% of the 4,341 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about hexane.

The reference concentration (RfC) for hexane was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for hexane is neurological in nature. IRIS has not accessed the carcinogenicity of hexane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for Hexane ranged from 0.40 μg/m³ to 2.2 μg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 300 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for hexane at every monitoring location analyzed for this report. Most of these trends are based on detection rates in excess of 75% and so result in a high level of confidence. Concentration trends across the state appear to be decreasing for the most part.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	78%	504	↘	0.0012	
Fort Wayne CAAP	66%	254	↗	0.00057	
Gary IITRI	67%	541	↘	0.00066	
Gary Ivanhoe	81%	206	↘	0.0012	
Hammond CAAP	90%	547	↔	0.0031	
Ogden Dunes	66%	557	↘	0.0007	
Pierre Moran School	77%	445	↘	0.0012	
University of Evansville	80%	479	↘	0.0012	
Washington Park	83%	532	↘	0.0014	
Whiting High School	85%	275	↗	0.0011	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
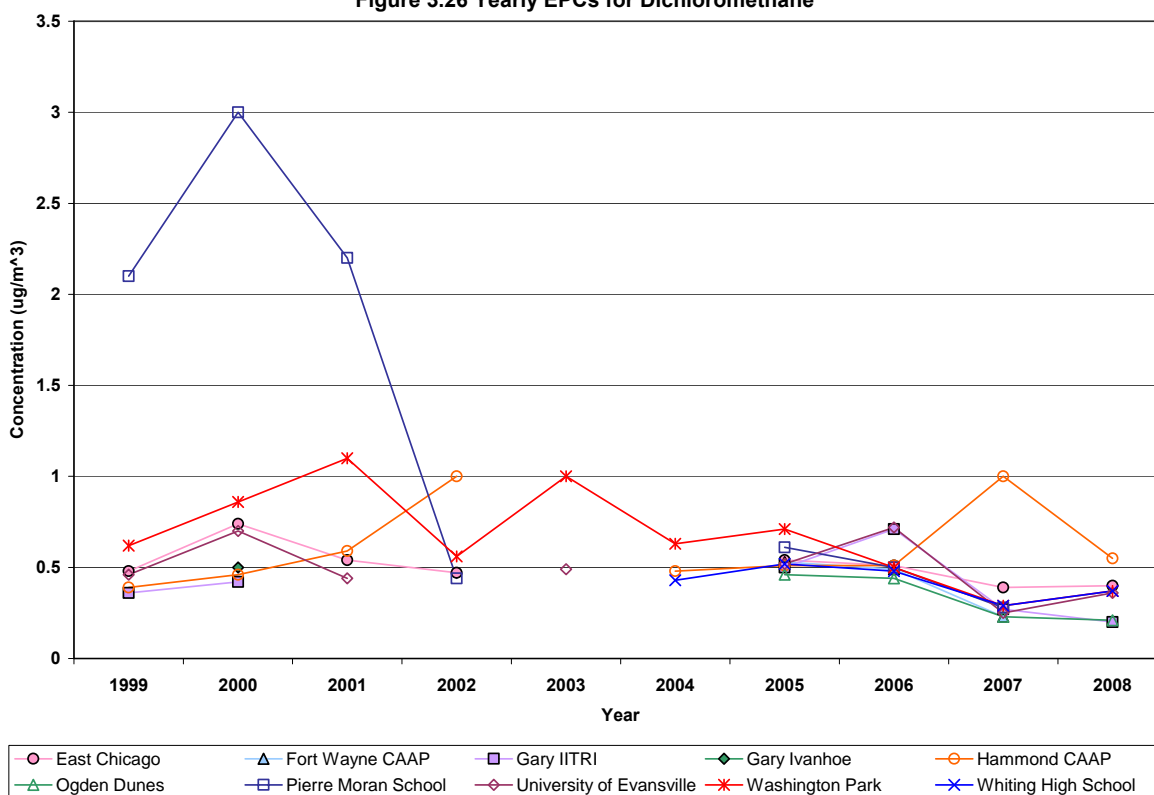HQ = Hazard Quotient; RE = Risk Estimate

Due to the high detection rate, apparent decreasing trends, and relatively low exposure concentrations, hexane has been placed in the lowest prioritization category, Category V.

Table 3.38 Yearly EPCs for Hexane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	1.4	1.5	1.4	1.0	0.50	1.2	0.45	0.95	0.62	0.81
Fort Wayne CAAP					0.28	0.44	0.45	0.50	0.43	
Gary IITRI	0.84	0.66	0.92	0.59	0.31	0.41	0.47	0.80	0.36	0.36
Gary Ivanhoe	1.1	1.1	1.2	0.56	0.40					
Hammond CAAP	3.3	2.6	4.6	2.4	1.6	1.8	1.9	2.9	2.0	2.5
Ogden Dunes	0.60	0.60	1.4	1.0	0.25	0.37	0.39	0.44	0.32	0.29
Pierre Moran School	1.6	1.3	1.8	0.73	0.69	0.7	0.71	0.79	0.57	
University of Evansville	1.2	1.6	1.8	0.60	0.34	0.51	0.73	1.4	0.61	0.90
Washington Park	2.0	1.8	1.7	0.90	0.78	0.94	0.87	1.2	0.86	1.0
Whiting High School						0.79	0.78	0.88	1.0	0.92

Figure 3.38 Yearly EPCs for Hexane

3.38.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/hexane.html
http://www.atsdr.cdc.gov/tfacts113.html

3.39 ISOPROPANOL

3.39.1 GENERAL INFORMATION

Isopropanol is a volatile, colorless liquid with a sharp musty odor like rubbing alcohol. Isopropanol is used in making cosmetics, skin and hair preparations, pharmaceuticals, perfumes, lacquer formulations, dye solutions, antifreezes, soaps, and window cleaners.

3.39.2 ISOPROPANOL IN INDIANA

Pollutant	RfC (mg/m³)	Source
Isopropanol	7	C
CAS #	**RfC Rank**	**Target System**
67-63-0	50 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Isopropyl Alcohol	N/A	-
	IUR Rank	**WOE**
	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	60.1	C_3H_8O
	Valid Samples	**Detection Rate**
	3242	58.48%
	Priority	
	IV	

Detections of Isopropanol are a moderately common occurrence at ToxWatch monitors. It has been found in about 6 out of 10 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for isopropanol. However, Cal/EPA had a RfC for isopropanol and this value was used for this study. The critical effect for isopropanol could not be determined. IRIS has not assessed the carcinogenicity of isopropanol. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for isopropanol ranged from 0.77 µg/m³ to 34 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Gary IITRI monitor, represents a value 200 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for isopropanol at every monitoring location analyzed for this report. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be steady for the most part.

Due to the relatively low detection rate, steady trends, and relatively low exposure concentrations, isopropanol has been placed in the second lowest prioritization category, Category IV.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	56%	387	↔	0.00011	
Fort Wayne CAAP	54%	254	↔	0.00033	
Gary IITRI	61%	402	↗	0.0049	
Gary Ivanhoe	69%	84	↔	0.0002	
Hammond CAAP	60%	399	↔	0.00013	
Ogden Dunes	53%	392	↔	0.00012	
Pierre Moran School	56%	316	↔	0.00063	
University of Evansville	59%	355	↔	0.00014	
Washington Park	63%	377	↔	0.00016	
Whiting High School	61%	275	↔	0.0002	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.39 Yearly EPCs for Isopropanol

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago				1.2	0.94	0.83	3.4	1.3	0.99	0.68
Fort Wayne CAAP					8.0	2.6	3.4	1.3	1.1	
Gary IITRI				1.2	220	3.3	4.3	2.5	0.73	0.82
Gary Ivanhoe				1.6	1.4					
Hammond CAAP				1.6	0.81	0.85	1.0	2.0	0.91	0.73
Ogden Dunes				1.2	1.4	1.1	0.69	1.5	1.1	0.52
Pierre Moran School				1.4	23	1.1	0.97	1.8	1.7	
University of Evansville				1.5	1.1	1.1	1.0	2.0	0.76	1.1
Washington Park				1.4	1.9	2.0	0.64	1.5	1.1	0.67
Whiting High School						4.3	1.3	1.4	1.0	0.82

Figure 3.39 Yearly EPCs for Isopropanol

3.39.3 REFERENCES

http://cameochemicals.noaa.gov/chemical/946
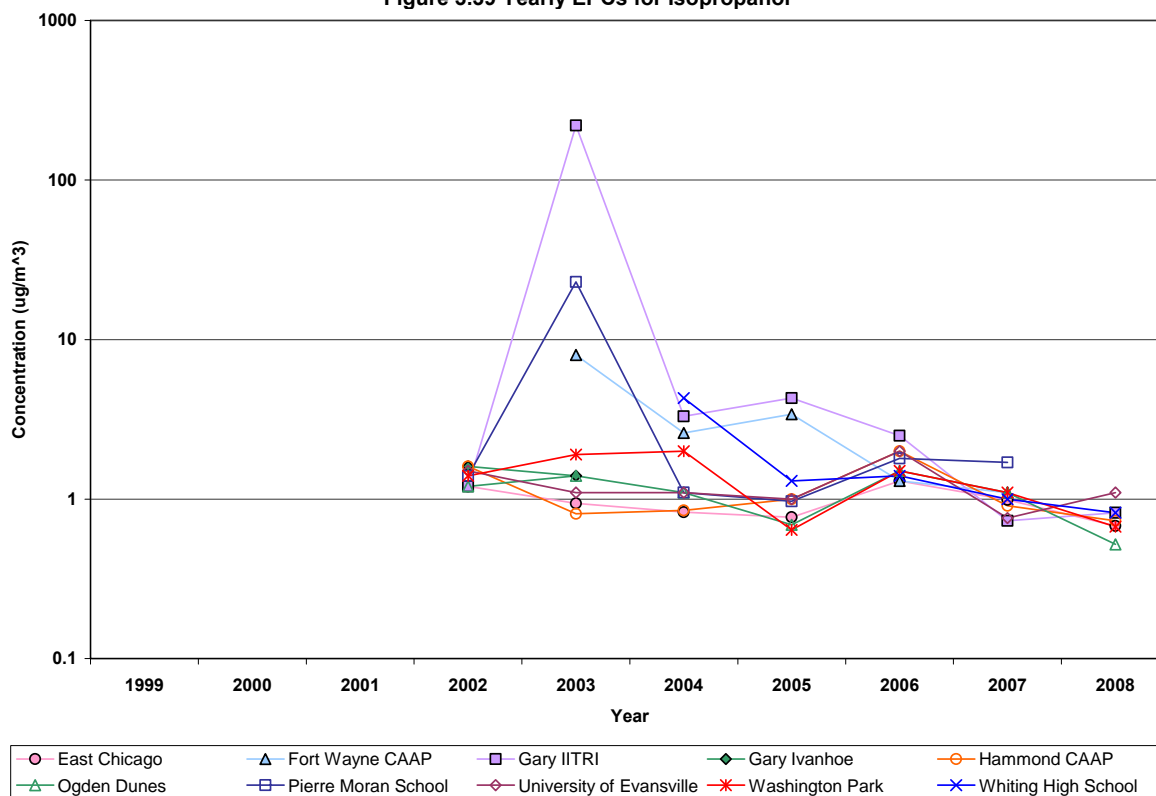
3.40 METHYL ETHYL KETONE (MEK)

3.40.1 GENERAL INFORMATION

Methyl ethyl ketone is a colorless volatile liquid that is soluble in water. The primary use of methyl ethyl ketone is as a solvent in processes involving gums, resins, cellulose acetate, and cellulose nitrate. Methyl ethyl ketone is also used in the synthetic rubber industry, in the production of paraffin wax, and in household products such as lacquer and varnishes, paint remover, and glues.

Pollutant	RfC (mg/m³)	Source
Methyl Ethyl Ketone	5	I
CAS #	**RfC Rank**	**Target System**
78-93-3	47 of 53	Reproductive
Synonyms	**IUR ((μg/m³)⁻¹)**	**Source**
2-Butanone	N/A	-
Ethyl Methyl Ketone	**IUR Rank**	**WOE**
Methyl Acetone	-	N/A
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	72.11	C_4H_8O
	Valid Samples	**Detection Rate**
	3242	89.08%
	Priority	
	V	

3.40.2 METHYL ETHYL KETONE IN INDIANA

Detections of Methyl Ethyl Ketone are a common occurrence at ToxWatch monitors across the state. It has been found in about 9 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about methyl ethyl ketone.

The reference concentration (RfC) for methyl ethyl ketone was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for methyl ethyl ketone is reproductive in nature. U.S. EPA has assessed the data related to methyl ethyl ketone and found it inadequate to make a determination of carcinogenicity. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for methyl ethyl ketone ranged from 1.7 μg/m³ to 3.6 μg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 1,000 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for methyl ethyl ketone at every monitoring location analyzed for this report. Concentration trends across the state appear to be steady for the most part.

Due to the high detection rate, steady trends, and relatively low exposure concentrations, methyl ethyl ketone has been placed in the lowest prioritization category, Category V.

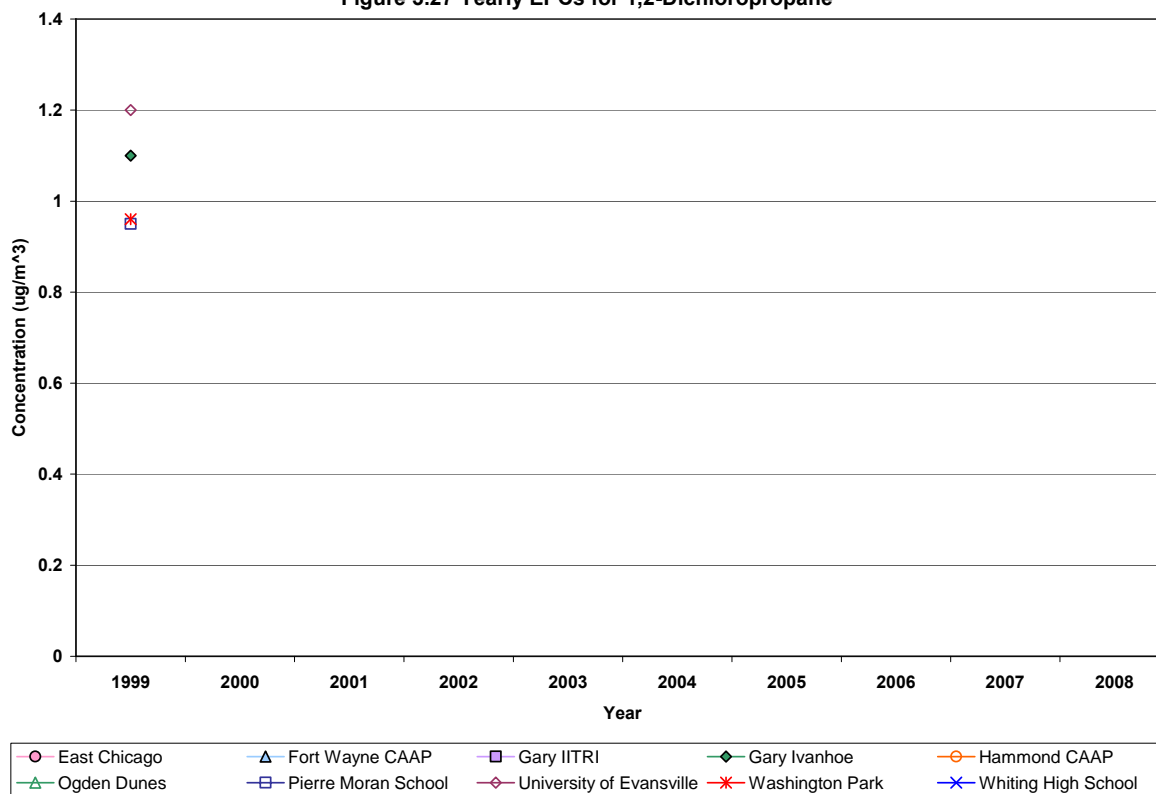| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	90%	387	↔	0.00048	
Fort Wayne CAAP	90%	254	↔	0.00048	
Gary IITRI	90%	402	↔	0.00048	
Gary Ivanhoe	82%	84	↗	0.00034	
Hammond CAAP	90%	399	↔	0.00072	
Ogden Dunes	89%	392	↔	0.00042	
Pierre Moran School	87%	316	↔	0.0004	
University of Evansville	88%	355	↔	0.00054	
Washington Park	88%	377	↔	0.00042	
Whiting High School	92%	275	↔	0.00052	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.40 Yearly EPCs for Methyl Ethyl Ketone

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago				2.2	2.2	2.4	2.9	3.4	2.0	2.9
Fort Wayne CAAP					2.1	3.0	2.9	2.7	2.1	
Gary IITRI				2.6	1.8	1.7	3.2	4.2	2.0	3.4
Gary Ivanhoe				1.7	1.8					
Hammond CAAP				5.8	2.3	2.2	3.2	7.3	4.3	2.8
Ogden Dunes				1.6	3.2	1.9	3.0	2.5	1.6	1.9
Pierre Moran School				1.7	2.0	2.2	3.0	2.3	1.5	
University of Evansville				2.9	2.5	2.8	4.7	4.2	1.9	2.7
Washington Park				1.9	2.1	2.5	3.3	2.6	2.0	1.8
Whiting High School						2.3	3.6	2.9	2.2	3.1

Figure 3.40 Yearly EPCs for Methyl Ethyl Ketone

3.40.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/methylet.html

3.41 METHYL ISOBUTYL KETONE (MIBK)

Pollutant	RfC (mg/m³)	Source
Methyl Isobutyl Ketone	3	O(I)
CAS #	RfC Rank	Target System
108-10-1	43 of 53	Reproductive
Synonyms	IUR ((µg/m³)⁻¹)	Source
Hexone	N/A	-
Isobutyl Methyl Ketone	IUR Rank	WOE
2-Methyl-4-Pentanone	-	N/A
4-Methyl-2-Pentanone		
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	100.16	$C_6H_{12}O$
	Valid Samples	Detection Rate
	3242	16.5%
Priority		
III		

3.41.1 GENERAL INFORMATION

Methyl isobutyl ketone is a colorless, flammable liquid that is moderately soluble in water. It has a slight camphor odor. Methyl isobutyl ketone may be released to the environment during its manufacture and use, in exhaust gas from vehicles, and from land disposal and ocean dumping of waste that contains this compound.

3.41.2 METHYL ISOBUTYL KETONE IN INDIANA

Detections of methyl isobutyl ketone are a moderately common occurrence at ToxWatch monitors. It has been detected in about 16% of the 3,242 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for methyl isobutyl ketone was found in IRIS. U.S. EPA has low/medium confidence in this RfC. The critical effect for methyl isobutyl ketone is reproductive in nature. U.S. EPA has assessed the data related to methyl isobutyl ketone and found it inadequate to make a determination of carcinogenicity. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for Methyl Isobutyl Ketone ranged from 0.25 µg/m³ to 1.4 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Gary IITRI monitor, represents a value 2,000 times lower than health protective levels.

Concentration trend analysis was only possible for the Whiting High School monitor, though the detection rate is low enough that a high level of confidence should not be placed in the increasing trend reported. If detection rates increase, more accurate trends results can be produced in the future.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	16%	387		0.00009	
Fort Wayne CAAP	12%	254		0.00011	
Gary IITRI	14%	402		0.00047	
Gary Ivanhoe	1.2%	84			
Hammond CAAP	24%	399		0.00012	
Ogden Dunes	14%	392		0.000083	
Pierre Moran School	9.5%	316		0.000093	
University of Evansville	17%	355		0.00011	
Washington Park	17%	377		0.00014	
Whiting High School	27%	275	↗	0.0001	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the low detection rate, lack of complete and reliable trend data, and relatively low exposure concentrations, Methyl Isobutyl Ketone has been placed in the middle prioritization category, Category III.

Table 3.41 Yearly EPCs for Methyl Isobutyl Ketone

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.42	0.21
Fort Wayne CAAP									0.42	
Gary IITRI									0.38	0.22
Gary Ivanhoe										
Hammond CAAP									0.60	0.36
Ogden Dunes									0.34	0.17
Pierre Moran School									0.37	
University of Evansville									0.34	0.19
Washington Park									0.41	0.22
Whiting High School									0.38	0.37

Figure 3.41 Yearly EPCs for Methyl Isobutyl Ketone

3.41.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/methyl-k.html
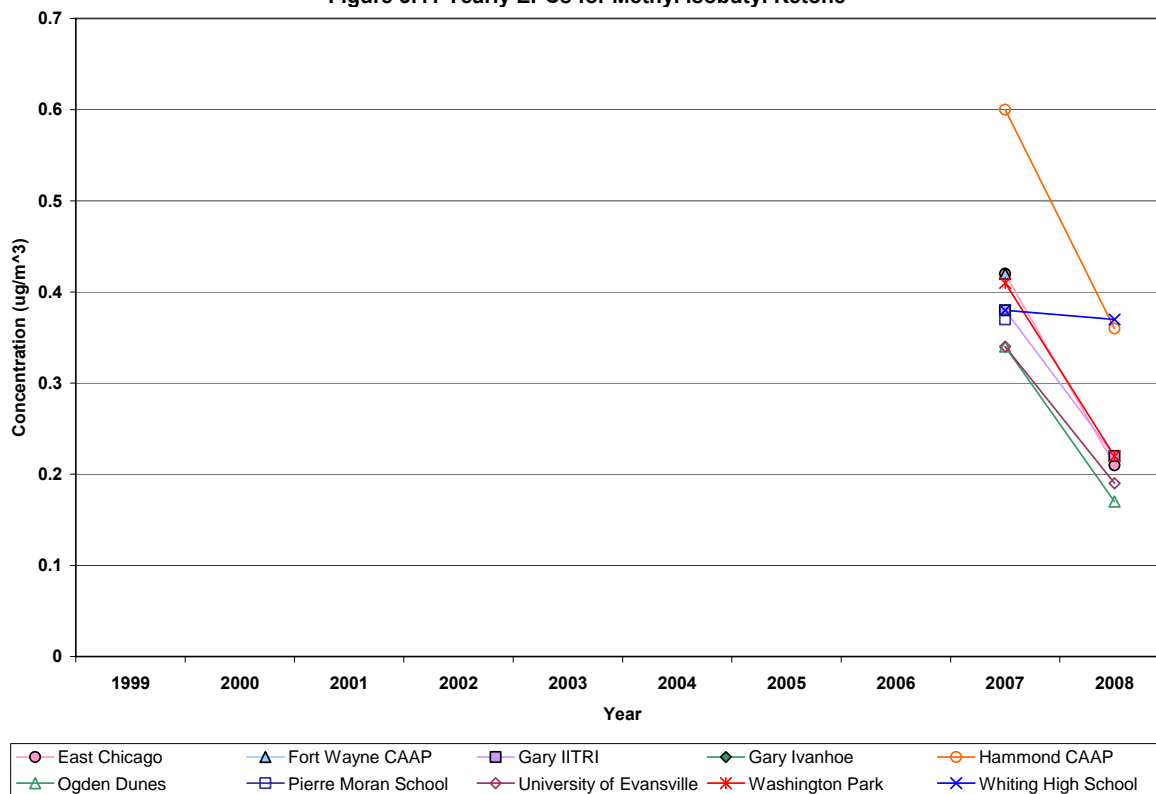
3.42 METHYL N-BUTYL KETONE (MBK)

3.42.1 GENERAL INFORMATION

Methyl n-butyl ketone is a colorless liquid with an acetone-like odor. It is soluble in water and very volatile. Methyl n-butyl ketone is no longer manufactured or used in the United States.

3.42.2 METHYL N-BUTYL KETONE IN INDIANA

Pollutant	RfC (mg/m³)	Source
Methyl n-Butyl Ketone	0.057	L(I)
CAS #	RfC Rank	Target System
591-78-6	13 of 53	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
	N/A	-
	IUR Rank	WOE
	-	
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	100.16	$C_6H_{12}O$
	Valid Samples	Detection Rate
	3242	24.2%
	Priority	
	III	

Detections of methyl n-butyl ketone are a moderately common occurrence at ToxWatch monitors. It has been detected in about 24% of the 3,242 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for methyl n-butyl ketone. However, IDEM's Office of Land Quality had a RfC for methyl n-butyl ketone and this value was used for this study. The critical effect for methyl n-butyl ketone could not be determined. IRIS has not accessed the carcinogenicity of methyl n-butyl ketone. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for methyl n-butyl ketone ranged from 0.45 µg/m³ to 0.74 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Whiting High School monitor, represents a value 80 times lower than health protective levels.

Concentration trend analysis was possible for some but not all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. The trends that were calculated were all increasing.

Due to the low detection rate, lack of complete and reliable trend data, and relatively low exposure concentrations, Methyl n-Butyl Ketone has been placed in the middle prioritization category, Category III.

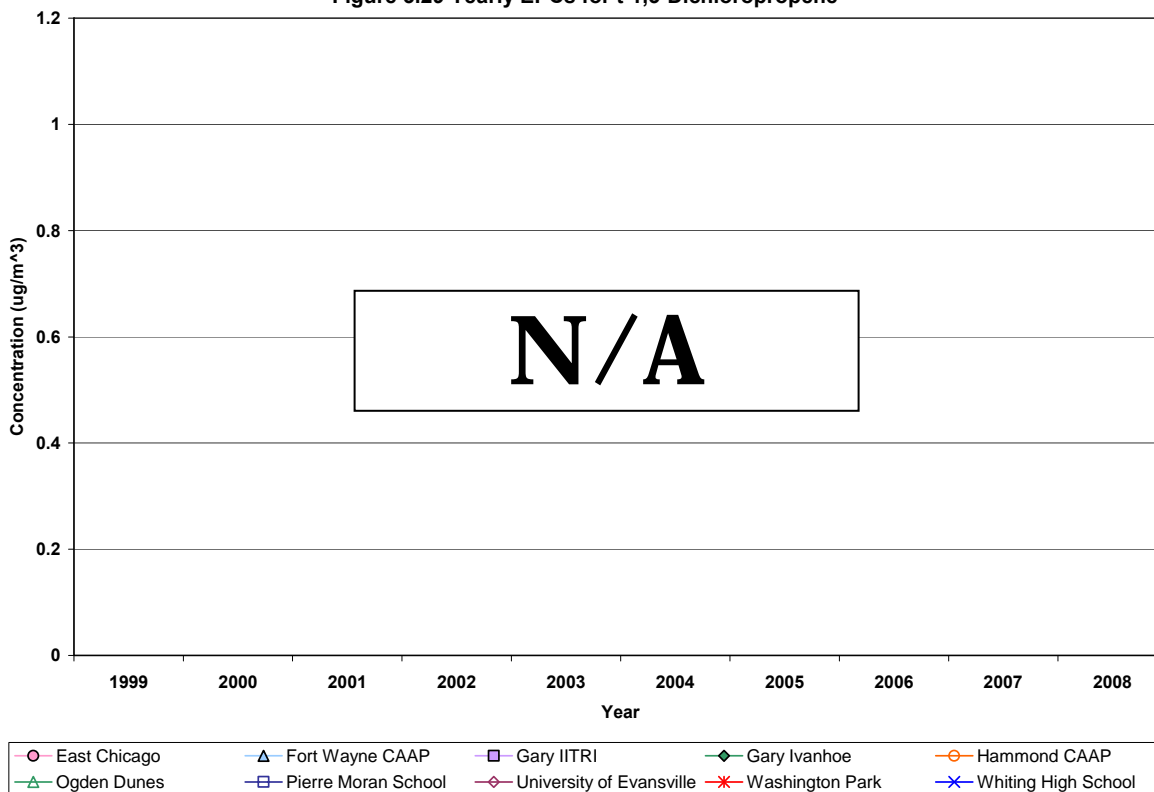| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	23%	387		0.011	
Fort Wayne CAAP	21%	254		0.01	
Gary IITRI	23%	402		0.0079	
Gary Ivanhoe	1.2%	84			
Hammond CAAP	32%	399	↗	0.011	
Ogden Dunes	22%	392		0.0082	
Pierre Moran School	13%	316		0.01	
University of Evansville	25%	355	↗	0.0088	
Washington Park	25%	377		0.012	
Whiting High School	39%	275	↗	0.013	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.42 Yearly EPCs for Methyl n-Butyl Ketone

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.66	0.30
Fort Wayne CAAP									0.82	
Gary IITRI									0.68	0.37
Gary Ivanhoe										
Hammond CAAP				2.6				2.8	0.90	0.41
Ogden Dunes									0.51	0.29
Pierre Moran School							4.0		0.58	
University of Evansville							3.4		0.51	0.38
Washington Park									0.62	0.36
Whiting High School						5.0	3.1		0.69	0.55

Figure 3.42 Yearly EPCs for Methyl n-Butyl Ketone

3.42.3 REFERENCES
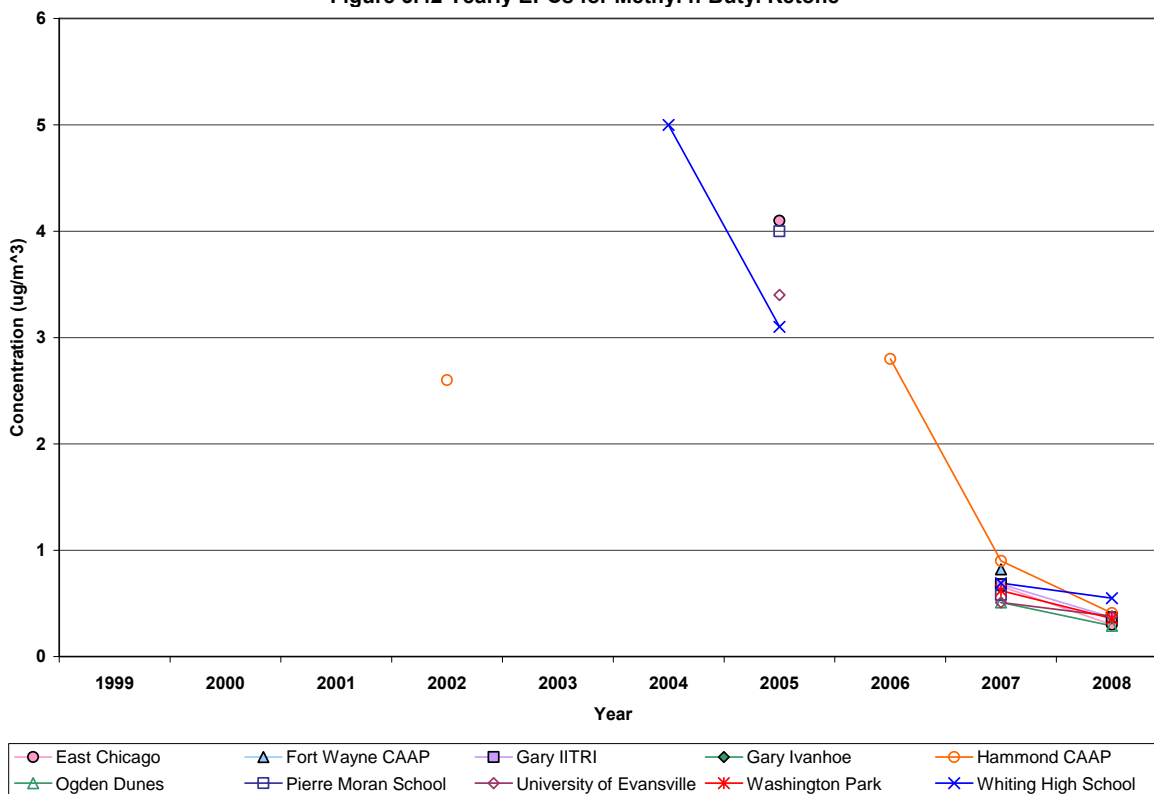
http://www.atsdr.cdc.gov/tfacts44.html
http://www.atsdr.cdc.gov/toxprofiles/tp44.html
http://hazmap.nlm.nih.gov/cgi-bin/hazmap_search
http://nj.gov/health/eoh/rtkweb/documents/fs/1280.pdf

3.43 METHYL TERT-BUTYL ETHER (MTBE)

Pollutant	RfC (mg/m³)	Source
Methyl Tert-Butyl Ether	3	O(I)
CAS #	RfC Rank	Target System
1634-04-4	43 of 53	Renal
Synonyms	IUR ((µg/m³)⁻¹)	Source
2-Methoxy-2-Methylpropane	2.6×10^{-7}	O(C)
2-Methyl-2-Methoxypropane	IUR Rank	WOE
tert-Butyl Methyl Ether	24 of 24	N/A
	Acute RfC (mg/m³)	Source
	7.2	O(A)
	Mol. Weight	Mol. Formula
	88.15	$C_5H_{12}O$
	Valid Samples	Detection Rate
	3242	0.56%
	Priority	
	IV	

3.43.1 GENERAL INFORMATION

Methyl tert-butyl ether is a colorless, flammable liquid with an unpleasant odor. Nearly all methyl tert-butyl ether produced in the United States is used as an additive in unleaded gasoline to increase octane levels and reduce carbon monoxide emissions. Most air releases of methyl tert-butyl ether are from automobile exhaust and gasoline refueling.

3.43.2 METHYL TERT-BUTYL ETHER IN INDIANA

Methyl tert-butyl ether has a very low detection rate statewide. In fact, it has only been detected in 18 of the 3,242 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about methyl tert-butyl ether's impact on Indiana's air quality.

The reference concentration (RfC) for methyl tert-butyl ether was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for methyl tert-butyl ether is renal in nature. IRIS has not assessed the carcinogenicity of methyl tert-butyl ether. However, Cal/EPA contained an inhalation unit risk for methyl tert-butyl ether and this value was used in this study.

Detection rates for methyl tert-butyl ether were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for methyl tert-butyl ether were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in methyl tert-butyl ether concentrations over time has been conducted.

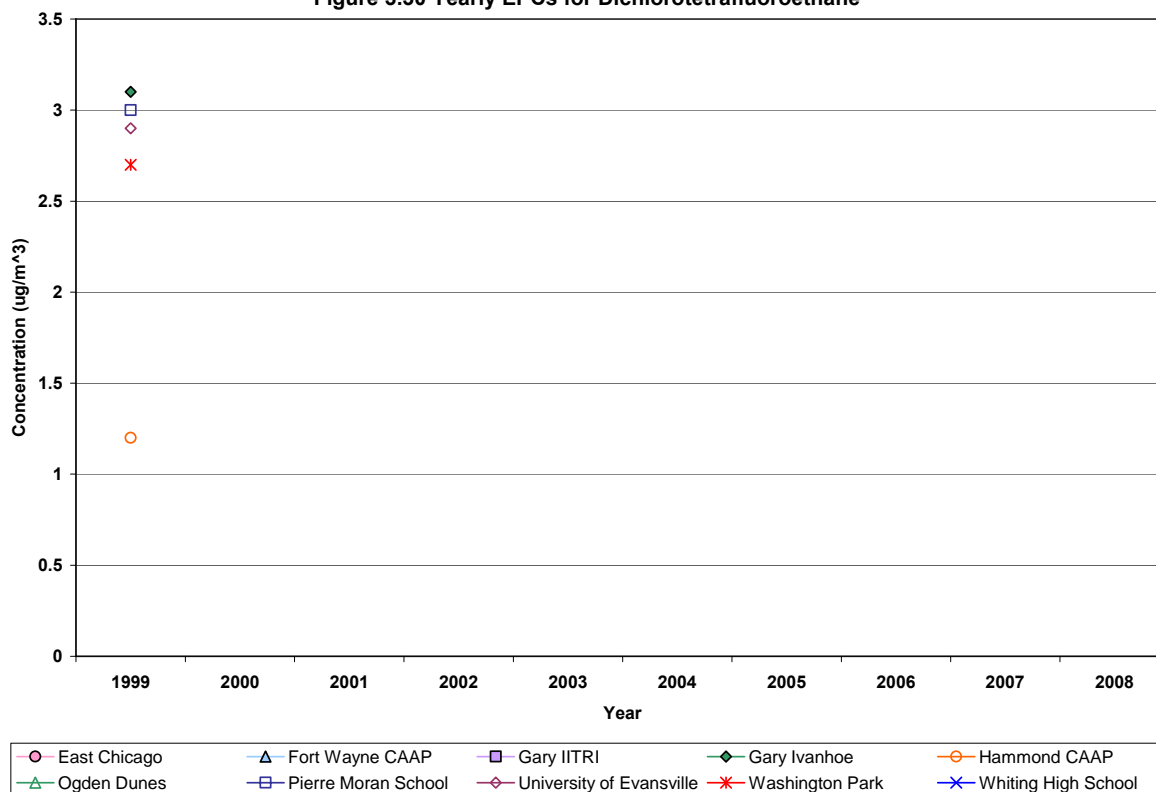| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	1.3%	387			
Fort Wayne CAAP	0%	254			
Gary IITRI	1%	402			
Gary Ivanhoe	0%	84			
Hammond CAAP	0.75%	399			
Ogden Dunes	0%	392			
Pierre Moran School	0.63%	316			
University of Evansville	0.28%	355			
Washington Park	0.53%	377			
Whiting High School	0.36%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and relatively low MDL, methyl tert-butyl ether has been placed in the second lowest prioritization category, Category IV.

Table 3.43 Yearly EPCs for Methyl Tert-Butyl Ether

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				**N/A**						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.43 Yearly EPCs for Methyl Tert-Butyl Ether

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.43.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/methylte.html
http://www.atsdr.cdc.gov/tfacts91.html

3.44 PROPENE

3.44.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Propene	3	C
CAS #	RfC Rank	Target System
115-07-1	43 of 53	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
Propylene	N/A	-
	IUR Rank	WOE
	-	
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	42.08	C_3H_6
	Valid Samples	Detection Rate
	4341	91.5%
	Priority	
	V	

Propene is a highly flammable colorless gas. The primary source of propene is as a byproduct of petroleum refining though it is used in the production of resins, plastics, and synthetic rubbers also. Small amounts of propene are also produced naturally by vegetation.

3.44.2 PROPENE IN INDIANA

Detections of propene are a common occurrence at ToxWatch monitors across the state. It has been found in about 9 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about propene.

IRIS did not contain a reference concentration (RfC) for propene. However, Cal/EPA had a RfC for propene and this value was used for this study. The critical effect for propene could not be determined. IRIS has not assessed the carcinogenicity of propene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for propene ranged from 1.5 µg/m³ to 2.8 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 1,000 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for propene at every monitoring location analyzed for this report. In addition, detection rates were sufficient to have high confidence in all reported trends. Concentration trends across the state appear to be decreasing for the most part.

Due to the high detection rate, apparent decreasing trends, and relatively low exposure concentrations, Propene has been placed in the lowest prioritization category, Category V.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	91%	504	↘	0.00077	
Fort Wayne CAAP	87%	254	↔	0.0005	
Gary IITRI	91%	541	↘	0.0006	
Gary Ivanhoe	97%	206	↘	0.00073	
Hammond CAAP	92%	547	↘	0.00093	
Ogden Dunes	91%	557	↘	0.0005	
Pierre Moran School	93%	445	↘	0.00067	
University of Evansville	89%	479	↘	0.0006	
Washington Park	94%	532	↘	0.0007	
Whiting High School	93%	275	↘	0.0005	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

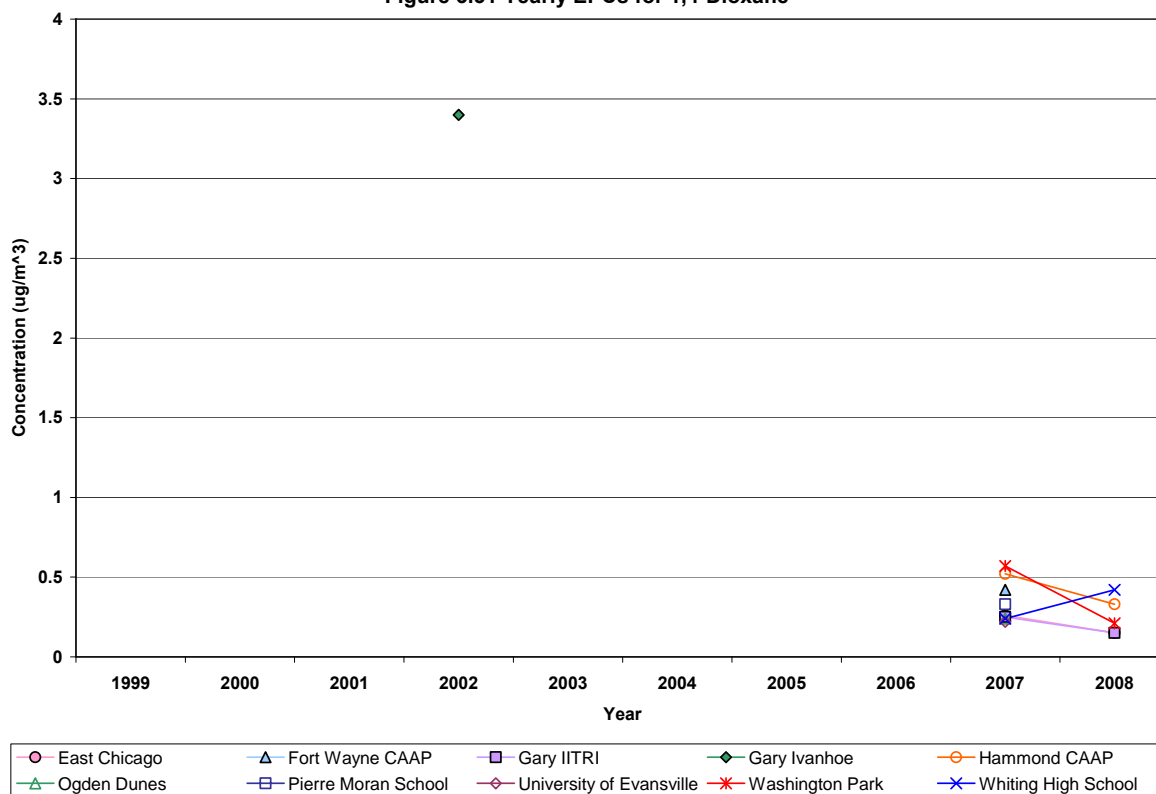**Table 3.44 Yearly EPCs for Propene**

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	2.7	3.8	3.0	4.3	3.5	1.7	1.4	2.4	1.0	1.6
Fort Wayne CAAP					2.1	0.98	1.4	3.3	0.73	
Gary IITRI	1.9	1.4	2.4	4.8	2.6	1.5	1.6	3.5	0.60	0.88
Gary Ivanhoe	2.0	1.5	1.9	3.7	3.3					
Hammond CAAP	2.8	2.6	5.1	6.3	4.8	1.3	2.3	3.7	1.8	2.5
Ogden Dunes	2.0	1.0	1.9	4.0	1.7	1.2	1.8	1.9	0.60	0.78
Pierre Moran School	4.2	1.9	2.6	4.1	2.5	1.2	1.8	2.4	0.74	
University of Evansville	2.3	1.8	2.4	4.6	2.0	0.96	1.8	3.9	0.79	1.1
Washington Park	2.5	1.8	2.5	4.2	5.5	1.3	1.8	2.6	0.87	1.2
Whiting High School						1.3	2.1	2.2	1.2	1.4

Figure 3.44 Yearly EPCs for Propene

3.44.3 REFERENCES
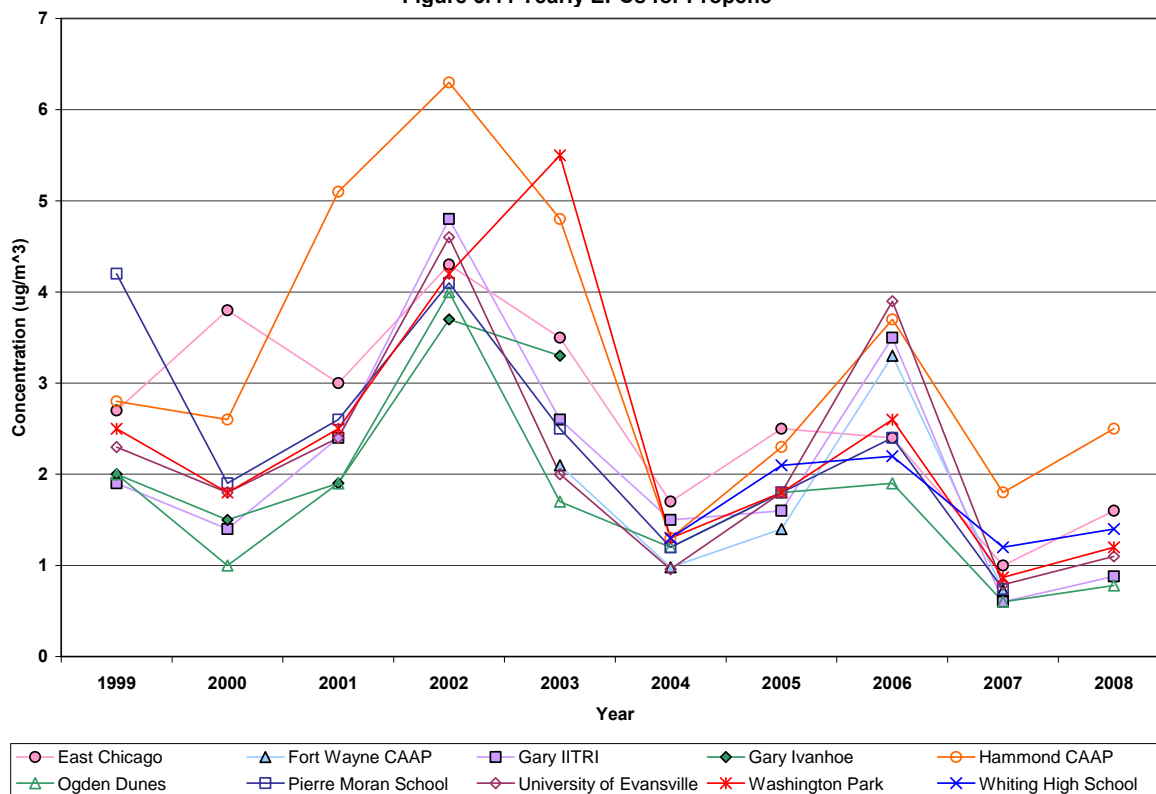
http://nj.gov/health/eoh/rtkweb/documents/fs/1609.pdf
http://oehha.ca.gov/air/chronic_rels/pdf/115071.pdf

3.45 STYRENE

3.45.1 GENERAL INFORMATION

Styrene is a colorless liquid that has a sweet odor and is very volatile. Styrene is widely used to make plastics and rubber. Products containing styrene include insulation, fiberglass, plastic pipes, automobile parts, shoes, drinking cups and other food containers, and carpet backing. Indoor air is the most common source of exposure. Styrene is also found naturally in fruits, vegetables, nuts, beverages, and meats.

Pollutant	RfC (mg/m³)	Source
Styrene	1	O(I)
CAS #	RfC Rank	Target System
100-42-5	36 of 53	Neurological
Synonyms	IUR ((µg/m³)⁻¹)	Source
Ethenylbenzene	N/A	-
Phenethylene	IUR Rank	WOE
Phenylethene	-	N/A
Phenylethylene	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	104.15	C_8H_8
	Valid Samples	Detection Rate
	4341	23.24%
	Priority	
	IV	

3.45.2 STYRENE IN INDIANA

Detections of styrene are a moderately common occurrence at ToxWatch monitors. It has been detected in about 23% of the 4,341 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

The reference concentration (RfC) for styrene was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for styrene is neurological in nature. IRIS has not accessed the carcinogenicity of styrene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for styrene ranged from 0.25 µg/m³ to 1.6 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Pierre Moran School monitor, represents a value 600 times lower than health protective levels.

Concentration trend analysis was possible for some but not all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. The trends that were calculated were both decreasing.

Due to the low detection rate, lack of complete trend data, lack of reliable trend data, and relatively low exposure concentrations, styrene has been placed in the second lowest prioritization category, Category IV.

| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	23%	504		0.00043	
Fort Wayne CAAP	16%	254		0.0003	
Gary IITRI	13%	541		0.00025	
Gary Ivanhoe	34%	206	↘	0.0006	
Hammond CAAP	20%	547		0.0004	
Ogden Dunes	14%	557		0.00036	
Pierre Moran School	63%	445	↘	0.0016	
University of Evansville	21%	479		0.00048	
Washington Park	24%	532		0.00042	
Whiting High School	3.6%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.45 Yearly EPCs for Styrene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	1.4	2.5	0.7				0.34	0.38	0.29	0.2
Fort Wayne CAAP					0.32		0.34	0.45	0.33	
Gary IITRI	0.49	1.1	0.56				0.31			
Gary Ivanhoe	1.5	1.2	0.49							
Hammond CAAP	0.83	2.4	0.42							0.14
Ogden Dunes	0.48	0.96	0.39							
Pierre Moran School	4.1	2.2	1.9	2.3	1.2	0.94	1.9	2.7	1.5	
University of Evansville	1.8	2.2	0.5							0.15
Washington Park	0.98	1.8	0.6		0.34		0.32	0.36	0.24	0.15
Whiting High School										0.17

Figure 3.45 Yearly EPCs for Styrene

3.45.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/styrene.html
http://www.atsdr.cdc.gov/tfacts53.html

3.46 1,1,2,2-TETRACHLOROETHANE

3.46.1 GENERAL INFORMATION

1,1,2,2-Tetrachloroethane is a manufactured chemical that does not occur naturally. It is a colorless, dense liquid that has a sweet, chloroform like odor. It is not a persistent chemical in the atmosphere; its half-life in air is about sixty days. 1,1,2,2-Tetrachloroethane is no longer widely used in the United States. Air emissions of 1,1,2,2-Tetrachloroethane occcur when it is a by-product of other chemical productions.

Pollutant	RfC (mg/m³)	Source
1,1,2,2-Tetrachloroethane	N/A	-
CAS #	RfC Rank	Target System
79-34-5	-	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
Acetylene Tetrachloride Bonoform 1,1-Dichloro-2,2-Dichloroethane	5.8×10^{-5}	O(l)
	IUR Rank	WOE
	2 of 24	C
	Acute RfC (mg/m³)	Source4
	Mol. Weight	Mol. Formula
	167.85	$C_2H_2Cl_4$
	Valid Samples	Detection Rate
	3211	0.5%
	Priority	
	II	

3.46.2 1,1,2,2-TETRACHLOROETHANE IN INDIANA

1,1,2,2-Tetrachloroethane has a very low detection rate statewide. In fact, it has only been detected in 16 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,1,2,2-tetrachloroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,1,2,2-tetrachloroethane. No other source in the toxicity heirarchy had a RfC available. U.S. EPA's weight of evidence (WOE) classification of 1,1,2,2-tetrachloroethane places it in Category C. This means that 1,1,2,2-tetrachloroethane is a possible human carcinogen based on limited animal and/or human test data.

Detection rates for 1,1,2,2-Tetrachloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 24 in 1,000,000. This is well above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for 1,1,2,2-Tetrachloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,1,2,2-Tetrachloroethane concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, 1,1,2,2-Tetrachloroethane has been placed in the second highest prioritization category, Category II.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.28%	363			
Fort Wayne CAAP	0.88%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.51%	392			
Ogden Dunes	0.5%	397			
Pierre Moran School	1.3%	316			
University of Evansville	0.56%	359			
Washington Park	0.52%	387			
Whiting High School	0.36%	275			

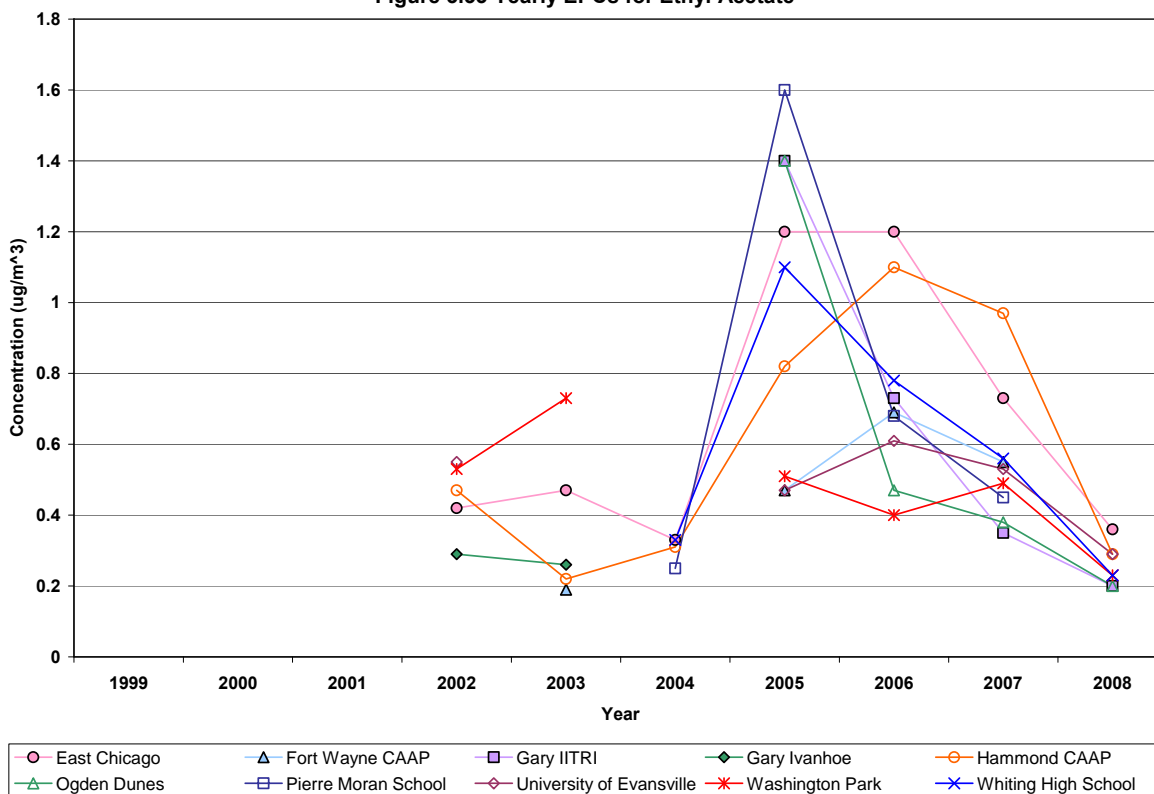DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.46 Yearly EPCs for 1,1,2,2-Tetrachloroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI					N/A					
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.46 Yearly EPCs for 1,1,2,2-Tetrachloroethane

3.46.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts93.html
http://www.epa.gov/ttn/atw/hlthef/tetrachl.html

3.47 TETRACHLOROETHENE (PCE)

3.47.1 GENERAL INFORMATION

Tetrachloroethene is a manufactured chemical that does not occur naturally. It is a nonflammable colorless liquid with a sharp sweet odor. Tetrachloroethene is used for dry cleaning and textile processing, and for vapor degreasing in metal-cleaning operations. Tetrachloroethene most often is released to the atmosphere during the manufacturing process and at dry cleaning establishments.

Pollutant	RfC (mg/m^3)	Source
Tetrachloroethene	0.27	O(A)
CAS #	RfC Rank	Target System
127-18-4	25 of 53	Neurological
Synonyms	IUR ((μg/m^3)$^{-1}$)	Source
Carbon Bichloride	5.9x10^{-6}	O(C)
Carbon Dichloride	IUR Rank	WOE
Ethylene Tetrachloride	17 of 24	N/A
Perchloroethylene	Acute RfC (mg/m^3)	Source4
Perc	1.4	O(A)
Tetrachlorethylene	Mol. Weight	Mol. Formula
	165.83	C_2Cl_4
	Valid Samples	Detection Rate
	4341	2.95%
	Priority	
	II	

3.47.2 TETRACHLOROETHENE IN INDIANA

Tetrachloroethene is not a commonly detected pollutant in Indiana's air. It has only been detected in about 3% of the 4,341 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about tetrachloroethene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for tetrachloroethene. However, ATSDR had a chronic minimal risk level (MRL) for tetrachloroethene and this value was used as the RfC for this study. The critical effect for tetrachloroethene is neurological in nature. IRIS has not accessed the carcinogenicity of tetrachloroethene. However, Cal/EPA contained an inhalation unit risk for tetrachloroethene and this value was used in this study.

Detection rates for tetrachloroethene were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 3.4 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for tetrachloroethene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in tetrachloroethene concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	2.6%	504			
Fort Wayne CAAP	2.4%	254			
Gary IITRI	1.1%	541			
Gary Ivanhoe	0%	206			
Hammond CAAP	4.6%	547			
Ogden Dunes	1.3%	557			
Pierre Moran School	2.7%	445			
University of Evansville	2.9%	479			
Washington Park	5.8%	532			
Whiting High School	5.1%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to its carcinogenicity, low detection rate, lack of trend data, and relatively high MDL, tetrachloroethene has been placed in the second highest prioritization category, Category II.

Table 3.47 Yearly EPCs for Tetrachloroethene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago									0.22	
Fort Wayne CAAP									0.23	
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP									0.42	0.28
Ogden Dunes									0.31	
Pierre Moran School									0.24	
University of Evansville									0.21	0.31
Washington Park									0.25	0.31
Whiting High School									0.22	

Figure 3.47 Yearly EPCs for Tetrachloroethene

3.47.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/tet-ethy.html
http://www.atsdr.cdc.gov/tfacts18.html

3.48 TETRAHYDROFURAN (THF)

3.48.1 GENERAL INFORMATION

Tetrahydrofuran is a colorless liquid with a faintly fruity, ether-like odor. It is very volatile, flammable and only partially soluble in water. It can be released to the atmosphere from factories that manufacture it or use it. Tetrahydrofuran is used as a solvent in the manufacture of magnetic tapes, cellophane, and adhesives.

Pollutant	RfC (mg/m³)	Source
Tetrahydrofuran	0.035	R
CAS #	**RfC Rank**	**Target System**
109-99-9	12 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
	N/A	-
	IUR Rank	**WOE**
	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	72.11	C_4H_8O
	Valid Samples	**Detection Rate**
	3242	12.34%
	Priority	
	III	

3.48.2 TETRAHYDROFURAN IN INDIANA

Tetrahydrofuran is not a commonly detected pollutant in Indiana's air. It has only been detected in about 12% of the 3,242 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for tetrahydrofuran. However, OAQPS route-extrapolated a RfC for tetrahydrofuran and this value was used for this study. The critical effect for tetrahydrofuran could not be determined. IRIS has not accessed the carcinogenicity of tetrahydrofuran. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for tetrahydrofuran ranged from 0.19 µg/m³ to 0.28 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Fort Wayne CAAP monitor, represents a value 100 times lower than health protective levels.

Detection rates for Tetrahydrofuran were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in Tetrahydrofuran concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	12%	387		0.0057	
Fort Wayne CAAP	12%	254		0.008	
Gary IITRI	18%	402		0.008	
Gary Ivanhoe	6%	84			
Hammond CAAP	16%	399		0.0071	
Ogden Dunes	7.4%	392			
Pierre Moran School	7.9%	316		0.0063	
University of Evansville	11%	355		0.0054	
Washington Park	11%	377		0.0066	
Whiting High School	19%	275		0.0071	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
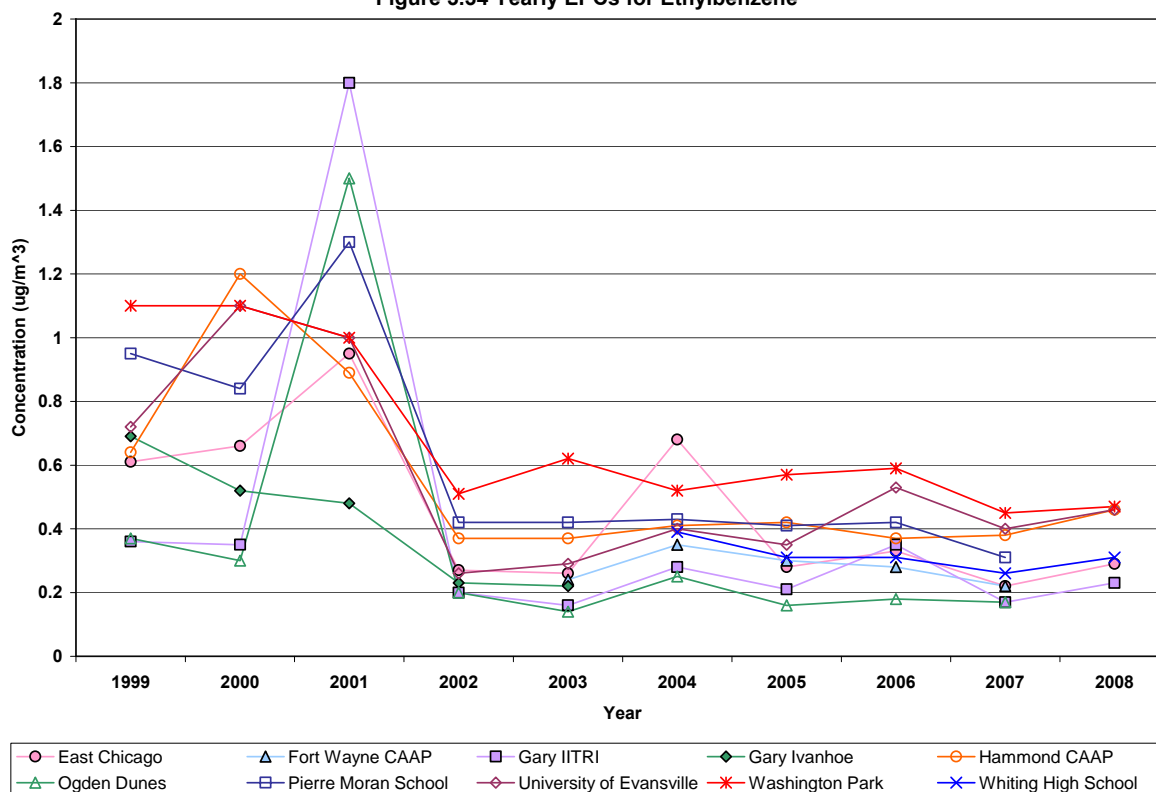HQ = Hazard Quotient; RE = Risk Estimate

Due to the low detection rate, lack of trend data, and relatively low exposure concentrations, tetrahydrofuran has been placed in the middle prioritization category, Category III.

Table 3.48 Yearly EPCs for Tetrahydrofuran

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago						0.36	0.36		0.22	0.32
Fort Wayne CAAP							0.36	0.37	0.28	
Gary IITRI				0.83		0.24	0.5	0.24	0.23	0.48
Gary Ivanhoe				0.28						
Hammond CAAP							0.54	0.33	0.49	0.33
Ogden Dunes							0.37		0.2	0.29
Pierre Moran School						0.31	0.5		0.24	
University of Evansville							0.46		0.18	0.31
Washington Park						0.27	0.74	0.26	0.17	0.39
Whiting High School						0.28	0.38	0.26	0.21	0.47

Figure 3.48 Yearly EPCs for Tetrahydrofuran

3.48.3 REFERENCES

http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?./temp/~nuxMNl:1
http://www.osha.gov/SLTC/healthguidelines/tetrahydrofuran/recognition.html
http://nj.gov/health/eoh/rtkweb/documents/fs/1823.pdf
http://www2.basf.us/diols/pdfs/thf_brochure.pdf

3.49 TOLUENE

3.49.1 GENERAL INFORMATION

Toluene is a colorless, flammable liquid that is slightly soluble in water. It has a sweet, pungent odor. Toluene is a natural substance found in the tolu tree as well as in crude oil. It is released during the process of refining gasoline and from making coke from coal. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber. Autmobile emissions are the major source of toluene emissions to the air.

Pollutant	RfC (mg/m³)	Source
Toluene	5	O(I)
CAS #	**RfC Rank**	**Target System**
108-88-3	47 of 53	Neurological
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Methylbenzene	N/A	-
Monomethylbenzene	**IUR Rank**	**WOE**
Phenylmethane	-	D
	Acute RfC (mg/m³)	**Source**
	3.8	O(A)
	Mol. Weight	**Mol. Formula**
	92.14	C_7H_8
	Valid Samples	**Detection Rate**
	4341	94.36%
	Priority	
	V	

3.49.2 TOLUENE IN INDIANA

Detections of Toluene are a common occurrence at ToxWatch monitors across the state. Toluene has been detected in about 94% of the 4,341 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about toluene.

The reference concentration (RfC) for toluene was found in IRIS. U.S. EPA has high confidence in this RfC. The critical effect for toluene is neurological in nature. U.S. EPA's weight of evidence (WOE) classification of toluene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of toluene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for Toluene ranged from 1.1 µg/m³ to 7.0 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Washington Park monitor, represents a value 700 times lower than health protective levels.

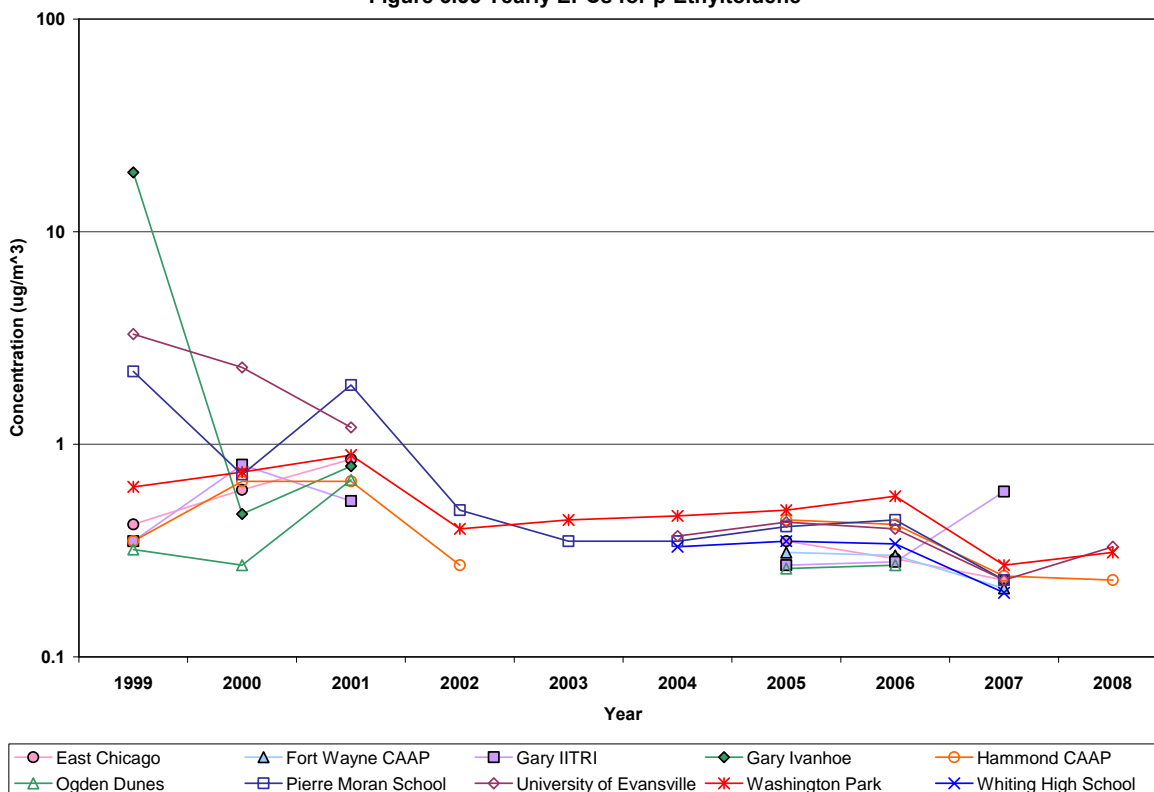| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	95%	504	↘	0.00074	
Fort Wayne CAAP	92%	254	↔	0.00024	
Gary IITRI	92%	541	↘	0.00032	
Gary Ivanhoe	98%	206	↘	0.00058	
Hammond CAAP	97%	547	↘	0.00064	
Ogden Dunes	91%	557	↘	0.00022	
Pierre Moran School	95%	445	↘	0.00068	
University of Evansville	95%	479	↘	0.00064	
Washington Park	97%	532	↘	0.0014	
Whiting High School	95%	275	↗	0.00028	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates were sufficient to conduct concentration trend analysis for Toluene at every monitoring location analyzed for this report. Concentration trends across the state appear to be decreasing for the most part.

Due to the high detection rate, apparent decreasing trends, and relatively low exposure concentrations, Toluene has been placed in the lowest prioritization category, Category V.

Table 3.49 Yearly EPCs for Toluene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	3.4	25	8.5	1.7	1.7	1.5	1.1	1.9	1.2	1.5
Fort Wayne CAAP					1.6	1.5	1.1	1.4	1.2	
Gary IITRI	4.3	3.1	5.2	1.1	1.1	1.0	1.0	1.7	0.89	0.93
Gary Ivanhoe	3.7	4.4	4.9	1.4	1.5					
Hammond CAAP	7.1	6.6	5.9	3.0	3.2	2.0	2.6	2.4	2.2	2.7
Ogden Dunes	2.7	1.7	2.3	1.1	0.78	0.72	0.65	0.71	0.6	0.61
Pierre Moran School	6.8	7.0	6.3	3.0	3.5	2.3	2.6	2.7	1.8	
University of Evansville	14	7.2	5.6	1.6	2.3	1.6	2.1	3.9	1.6	2.7
Washington Park	17	14	18	6.8	11	3.4	2.5	3.3	2.6	3.2
Whiting High School						1.3	1.4	1.4	1.7	1.7

Figure 3.49 Yearly EPCs for Toluene

3.49.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/toluene.html
http://www.atsdr.cdc.gov/tfacts56.html
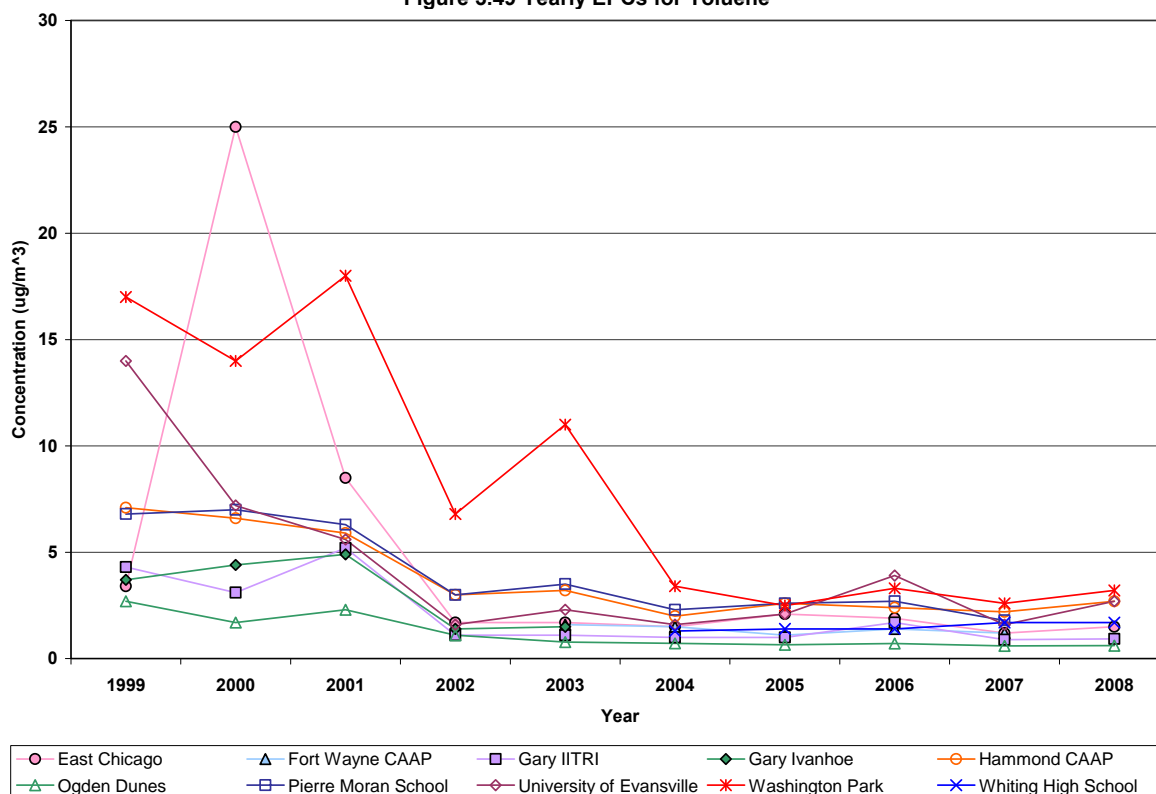
3.50 TRICHLOROTRIFLUOROETHANE

3.50.1 GENERAL INFORMATION

Trichlorotrifluoroethane is a clear, colorless liquid with an ether-like odor. Trichlorotrifluoroethane was banned as a CFC for its ozone-layer destroying properties. Trichlorotrifluoroethane was primarily used as a dry cleaning solvent. It was also used as a refrigerant.

3.50.2 TRICHLOROTRIFLUOROETHANE IN INDIANA

Pollutant	RfC (mg/m³)	Source
Trichlorotrifluoroethane	N/A	-
CAS #	**RfC Rank**	**Target System**
76-13-1	-	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Freon 113	N/A	-
1,1,2-Trifluoro-1,2,2-Trichloroethane	**IUR Rank**	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source3**
	Mol. Weight	**Mol. Formula**
	187.38	$C_2Cl_3F_3$
	Valid Samples	**Detection Rate**
	4341	47.5%
	Priority	
	II	

Detections of trichlorotrifluoroethane are a moderately common occurrence at ToxWatch monitors. It has been detected in about 48% of the 4,341 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

No source in the toxicity heirarchy contained toxicity data for trichlorotrifluoroethane. This means that no conclusions can be drawn concerning the pollutant's impact on human health.

Exposure concentrations calculated for trichlorotrifluoroethane ranged from 0.45 µg/m³ to 0.55 µg/m³. Trichlorotrifluoroethane concentrations are very consistent across the state. They are neither exceptionally high, nor exceptionally low compared to other contaminants in the study. However, without toxicity data, it is impossible to say whether these concentrations pose an undue risk to human health.

Detection rates were sufficient to conduct concentration trend analysis for trichlorotrifluoroethane at every monitoring location analyzed for this report. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be increasing for the most part.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	47%	504	↗		
Fort Wayne CAAP	44%	254	↗		
Gary IITRI	44%	541	↗		
Gary Ivanhoe	38%	206	↔		
Hammond CAAP	52%	547	↔		
Ogden Dunes	48%	557	↗		
Pierre Moran School	47%	445	↗		
University of Evansville	46%	479	↗		
Washington Park	46%	532	↗		
Whiting High School	62%	275	↗		

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
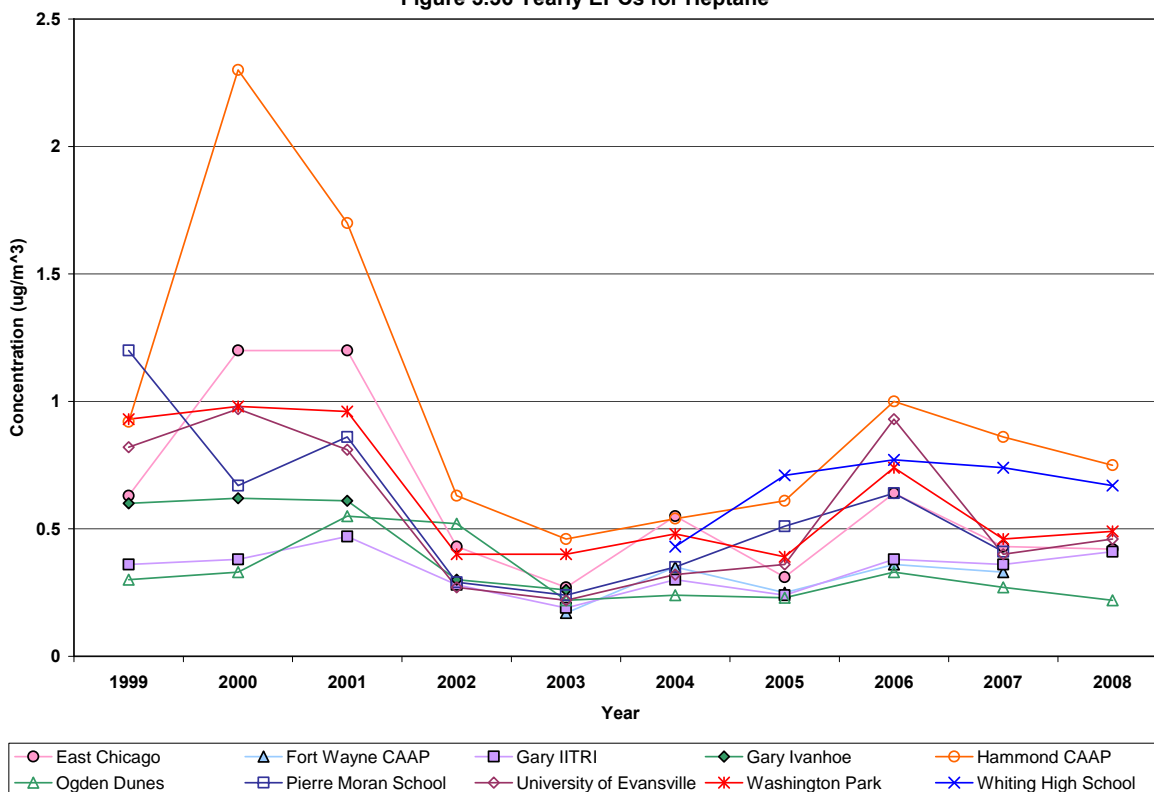HQ = Hazard Quotient; RE = Risk Estimate

Due to the relatively low detection rate, apparent increasing trends, and lack of any toxicity data, trichlorotrifluoroethane has been placed in the second highest prioritization category, Category II.

Table 3.50 Yearly EPCs for Trichlorotrifluoroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	0.52	0.86	0.56	0.59	0.64	0.63	0.56	0.61	0.54	0.52
Fort Wayne CAAP					0.57	0.58	0.56	0.60	0.56	
Gary IITRI		0.53	0.55	0.58	0.76	0.63	0.56	1.1	0.53	0.59
Gary Ivanhoe	0.48	0.54	0.55	0.58	0.60					
Hammond CAAP	0.63	0.75	0.58	0.57	0.57	0.64	0.59	0.59	0.70	0.55
Ogden Dunes	0.52	0.62	0.55	0.60	0.56	0.60	0.57	0.62	0.56	0.56
Pierre Moran School	0.88	0.67	0.59	0.68	0.55	0.57	0.97	0.71	0.55	
University of Evansville	0.49	0.62	0.56	0.63	0.56	0.61	0.57	1.3	0.52	0.69
Washington Park	0.50	0.68	0.57	0.57	0.55		0.62	0.60	0.53	0.58
Whiting High School						0.75	0.57	0.60	0.57	0.65

Figure 3.50 Yearly EPCs for Trichlorotrifluoroethane

3.50.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/1904.pdf
http://www.dnr.state.wi.us/air/emission/nr438/pollutants/195.htm
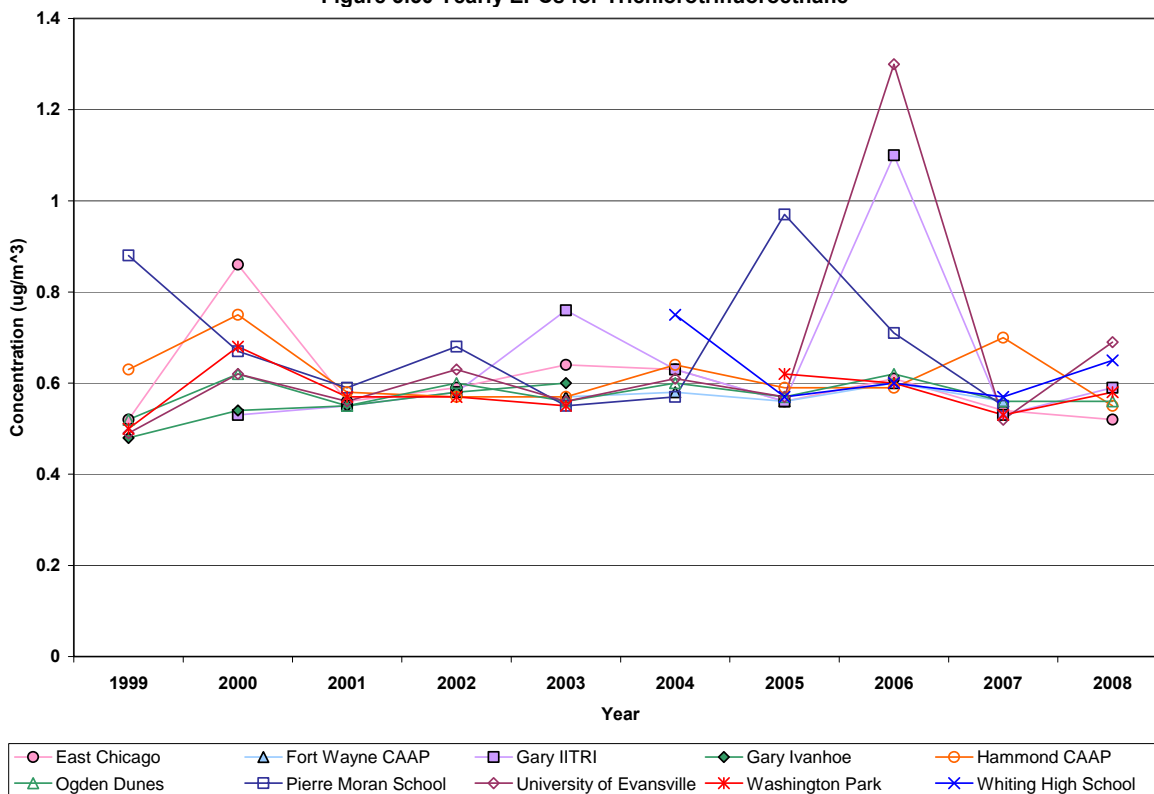
3.51 1,2,4-TRICHLOROBENZENE

3.51.1 GENERAL INFORMATION

1,2,4-Trichlorobenzene is an aromatic, colorless liquid that is insoluble in water. 1,2,4-Trichlorobenzene is used in the manufacturing process of dyes and herbicides. It is used as a heat transfer fluid in transformers, a degreaser, a lubricant, and as a solvent in chemical manufacturing

3.51.2 1,2,4-TRICHLOROBENZENE IN INDIANA

Pollutant	RfC (mg/m³)	Source
1,2,4-Trichlorobenzene	0.2	O(H)
CAS #	**RfC Rank**	**Target System**
120-82-1	22 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
	N/A	-
	IUR Rank	**WOE**
	-	D
	Acute RfC (mg/m³)	**Source3**
	Mol. Weight	**Mol. Formula**
	181.45	$C_6H_3Cl_3$
	Valid Samples	**Detection Rate**
	3902	0.95%
	Priority	
	III	

1,2,4-Trichlorobenzene has a very low detection rate statewide. In fact, it has only been detected in 37 of the 3,902 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,2,4-trichlorobenzene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,2,4-trichlorobenzene. However, HEAST had a RfC for 1,2,4-trichlorobenzene and this value was used for this study. The critical effect for 1,2,4-trichlorobenzene could not be determined. U.S. EPA's weight of evidence (WOE) classification of 1,2,4-trichlorobenzene places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of 1,2,4-trichlorobenzene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for 1,2,4-trichlorobenzene were insufficient to calculate exposure concentrations for any of the monitoring locations. However, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health.

Detection rates for 1,2,4-trichlorobenzene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,2,4-trichlorobenzene concentrations over time has been conducted.

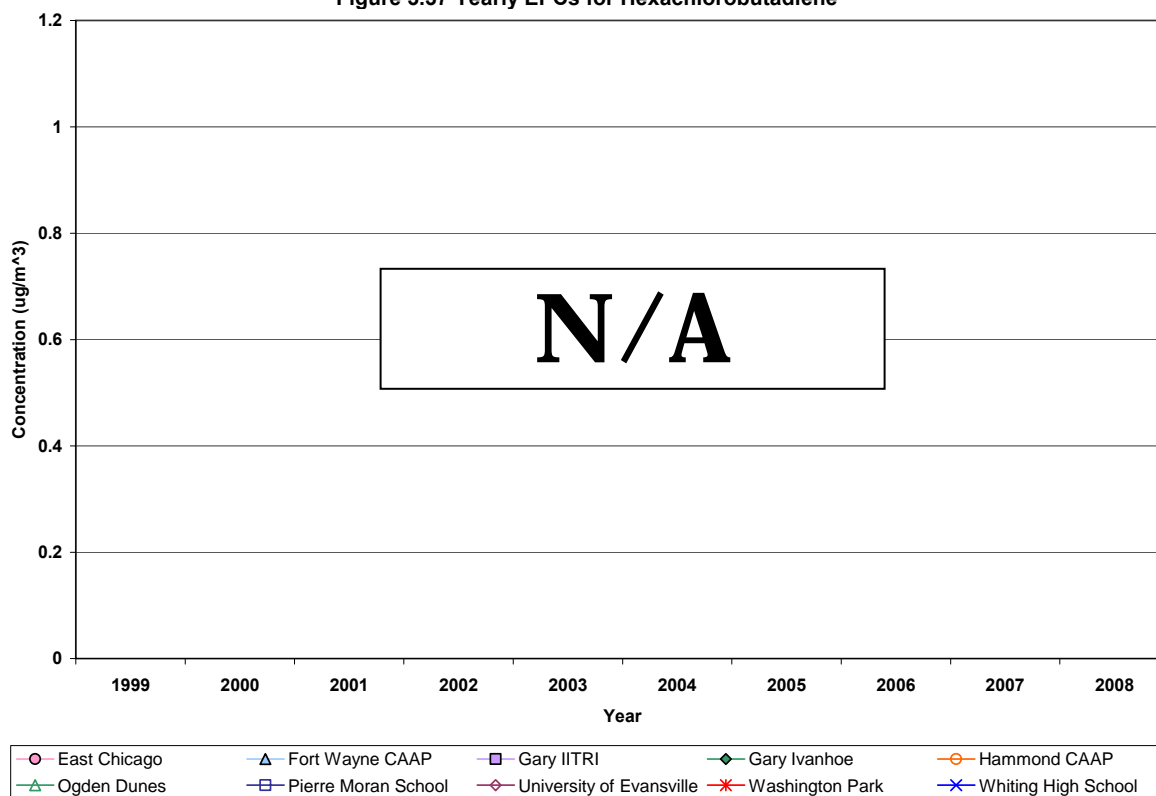| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	1.3%	446			
Fort Wayne CAAP	1.8%	226			
Gary IITRI	0.62%	481			
Gary Ivanhoe	1.1%	174			
Hammond CAAP	1%	493			
Ogden Dunes	0.4%	497			
Pierre Moran School	1%	395			
University of Evansville	0.23%	434			
Washington Park	1.2%	480			
Whiting High School	1.5%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and relatively low MDL, 1,2,4-trichlorobenzene has been placed in the middle prioritization category, Category III.

Table 3.51 Yearly EPCs for 1,2,4-Trichlorobenzene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago							0.59			
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.51 Yearly EPCs for 1,2,4-Trichlorobenzene

3.51.3 REFERENCES
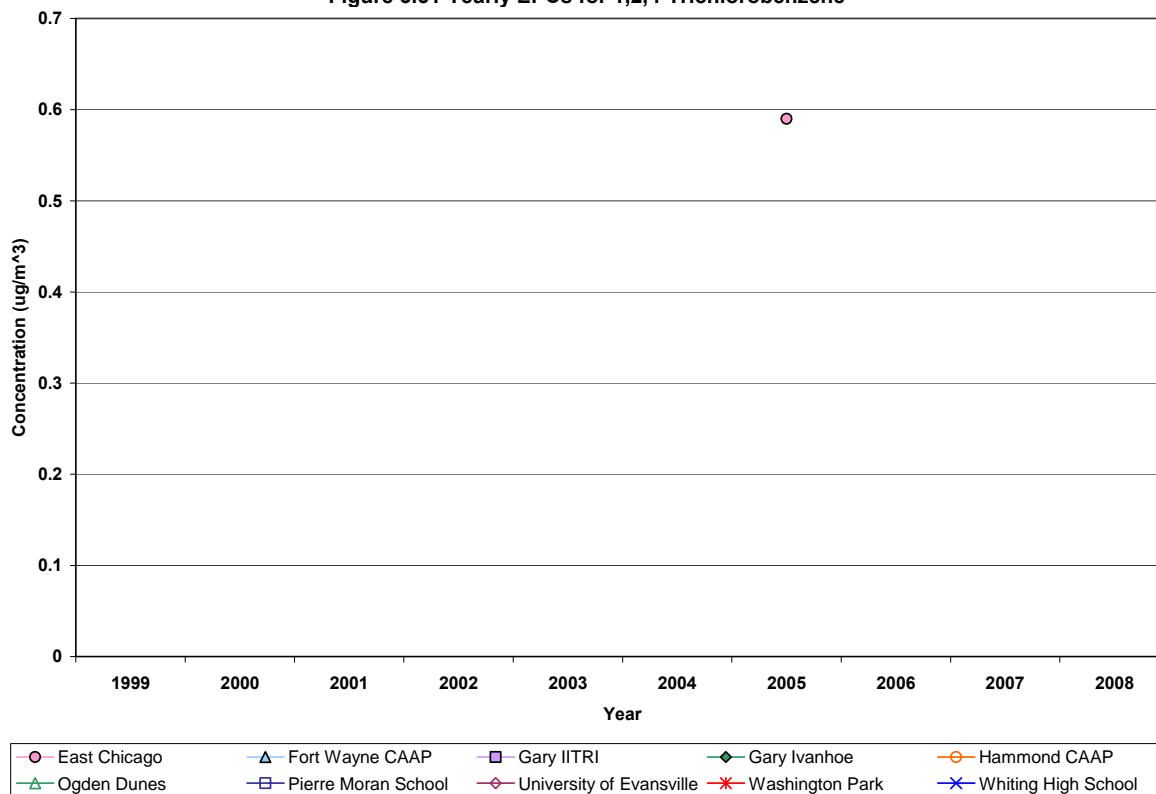
http://www.epa.gov/ttn/atw/hlthef/tri-zene.html
http://www.epa.gov/OGWDW/contaminants/dw_contamfs/124-tric.html

3.52 1,1,1-TRICHLOROETHANE

3.52.1 GENERAL INFORMATION

1,1,1-Trichloroethane is a synthetic chemical that does not occur naturally in the environment. 1,1,1-Trichloroethane is a colorless, nonflammable liquid that is insoluble in water. It has a sweet yet sharp odor, similar to that of chloroform. No 1,1,1-trichloroethane is supposed to be manufactured for domestic use in the United States after January 1, 2002 because it affects the ozone layer.

Pollutant	RfC (mg/m³)	Source
1,1,1-Trichloroethane	1	O(C)
CAS #	RfC Rank	Target System
71-55-6	36 of 53	Neurological
Synonyms	IUR ((µg/m³)⁻¹)	Source
Chloroethene	N/A	-
Methylchloroform	IUR Rank	WOE
Methyltrichloromethane	-	D
Trichloromethylmethane		
	Acute RfC (mg/m³)	Source3
	11	O(A)
	Mol. Weight	Mol. Formula
	133.4	$C_2H_3Cl_3$
	Valid Samples	Detection Rate
	3902	1.49%
	Priority	
	IV	

3.52.2 1,1,1-TRICHLOROETHANE IN INDIANA

1,1,1-Trichloroethane is not a commonly detected pollutant in Indiana's air. It has only been detected in about 58 of the 3,902 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,1,1-trichloroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,1,1-trichloroethane. However, Cal/EPA had a RfC for 1,1,1-trichloroethane and this value was used for this study. The critical effect for 1,1,1-trichloroethane is neurological in nature. U.S. EPA's weight of evidence (WOE) classification of 1,1,1-trichloroethane places it in Category D. This means that U.S. EPA has reviewed the data and found it inadequate to determine the toxicity of 1,1,1-trichloroethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates for 1,1,1-trichloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations except for Hammond CAAP. The exposure concentration calculated for Hammond CAAP is over 5,000 times lower than health protective levels. In addition, the median MDL is low enough to indicate that concentrations of the pollutant are insufficient to pose a risk to human health at the other monitoring locations as well.

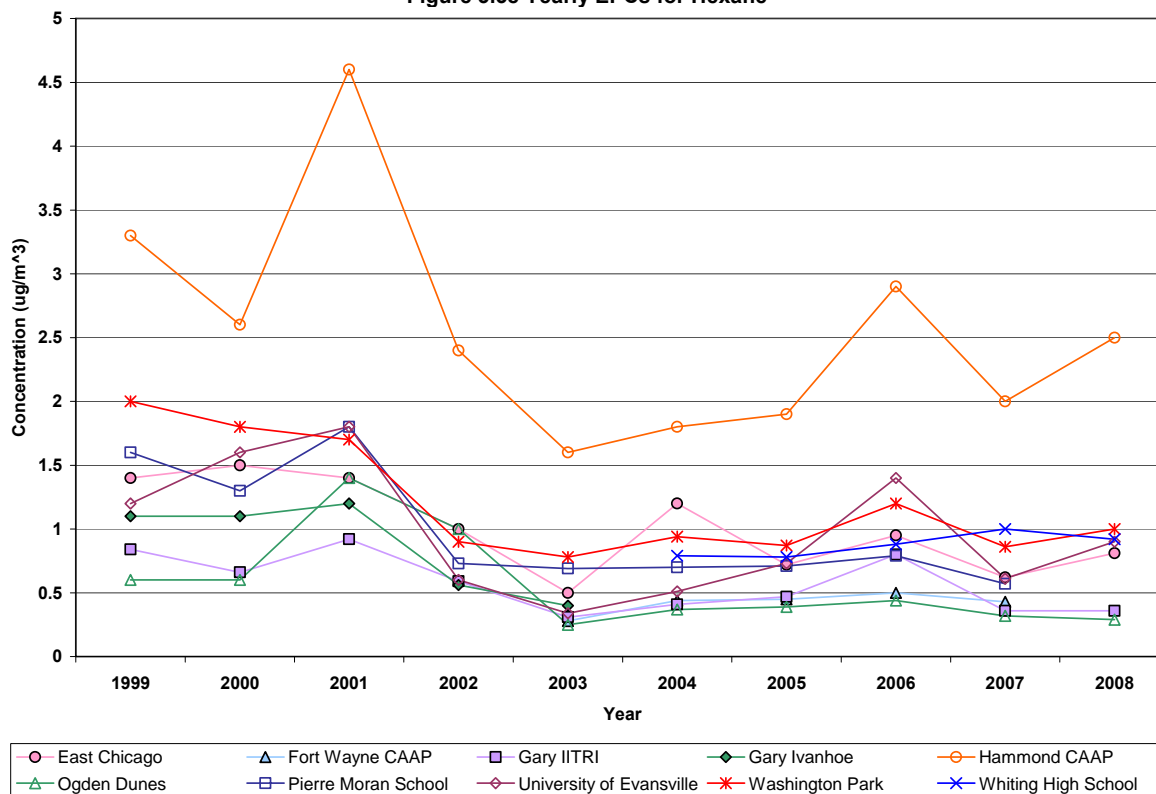| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.45%	446			
Fort Wayne CAAP	0%	226			
Gary IITRI	0.21%	481			
Gary Ivanhoe	0%	174			
Hammond CAAP	11%	493		0.00018	
Ogden Dunes	0%	497			
Pierre Moran School	0.25%	395			
University of Evansville	0.46%	434			
Washington Park	0%	480			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for 1,1,1-trichloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,2,4-trichlorobenzene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and very low MDL, 1,1,1-trichloroethane has been placed in the second lowest prioritization category, Category IV.

Table 3.52 Yearly EPCs for 1,1,1-Trichloroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										0.25	0.17
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.52 Yearly EPCs for 1,1,1-Trichloroethane

3.52.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts70.html
http://www.epa.gov/ttn/atw/hlthef/trichlor.html
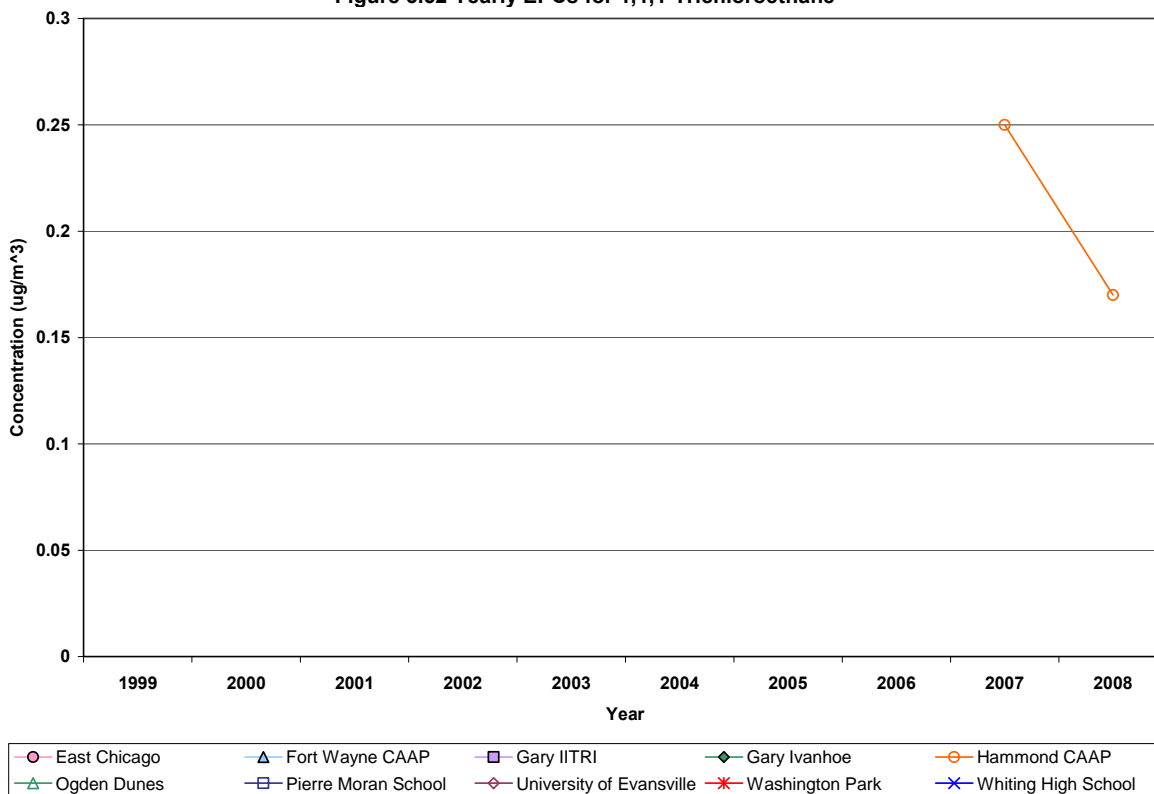
3.53 1,1,2-TRICHLOROETHANE

3.53.1 GENERAL INFORMATION

1,1,2-Trichloroethane is a colorless, sweet-odoring liquid. It does not burn easily, can be dissolved in water, and evaporates easily. It is not a persistent chemical in the atmosphere; its half-life in air is about forty-nine days. 1,1,2-Trichloroethane is primarily used in the production of 1,1-dichloroethene. It is also used as a solvent for chlorinated rubbers, fats, oils, waxes, and resins.

Pollutant	RfC (mg/m^3)	Source
1,1,2-Trichloroethane	0.4	O(C)
CAS #	**RfC Rank**	**Target System**
79-00-5	27 of 53	-
Synonyms	**IUR ((µg/m^3)$^{-1}$)**	**Source**
Ethane Trichloride	1.6x10^{-5}	O(I)
Vinyl Trichloride	**IUR Rank**	**WOE**
	11 of 24	C
	Acute RfC (mg/m^3)	**Source3**
	Mol. Weight	**Mol. Formula**
	133.4	$C_2H_3Cl_3$
	Valid Samples	**Detection Rate**
	3485	0.23%
	Priority	
	II	

3.53.2 1,1,2-TRICHLOROETHANE IN INDIANA

1,1,2-Trichloroethane has a very low detection rate statewide. In fact, it has only been detected in 8 of the 3,485 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about 1,1,2-trichloroethane's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for 1,1,2-trichloroethane. However, Cal/EPA had a RfC for 1,1,2-trichloroethane and this value was used for this study. The critical effect for 1,1,2-trichloroethane could not be determined. U.S. EPA's weight of evidence (WOE) classification of 1,1,2-trichloroethane places it in Category C. This means that 1,1,2-trichloroethane is a possible human carcinogen based on limited animal and/or human test data.

Detection rates for 1,1,2-trichloroethane were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 6.8 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for 1,1,2-trichloroethane were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in 1,1,2-trichloroethane concentrations over time has been conducted.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.51%	392			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	428			
Gary Ivanhoe	0%	122			
Hammond CAAP	0.23%	437			
Ogden Dunes	0.45%	445			
Pierre Moran School	0.29%	348			
University of Evansville	0.52%	383			
Washington Park	0%	429			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the very low detection rate, lack of trend data, and relatively high MDL, 1,1,2-trichloroethane has been placed in the second highest prioritization category, Category II.

Table 3.53 Yearly EPCs for 1,1,2-Trichloroethane

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.53 Yearly EPCs for 1,1,2-Trichloroethane

3.53.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/tri-etha.html
http://www.atsdr.cdc.gov/tfacts148.html
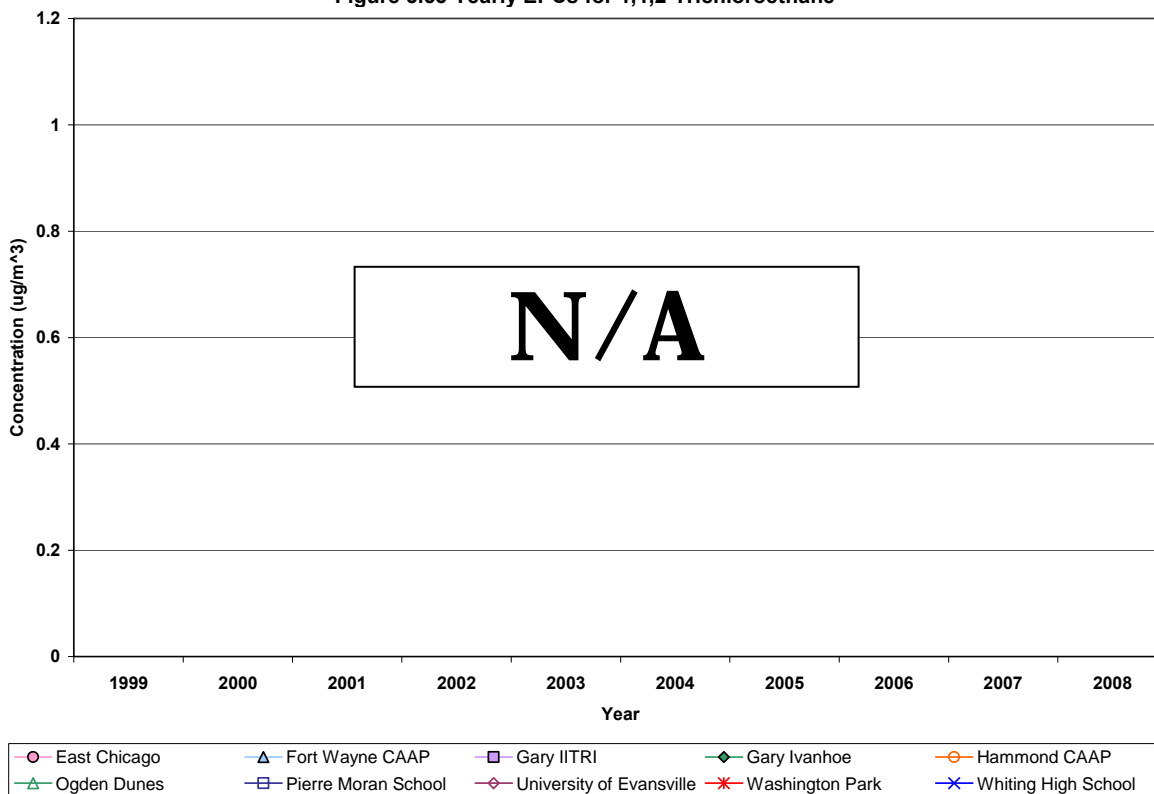
3.54 TRICHLOROETHENE (TCE)

3.54.1 GENERAL INFORMATION

Pollutant	RfC (mg/m^3)	Source
Trichloroethene	0.6	O(C)
CAS #	**RfC Rank**	**Target System**
79-01-6	30 of 53	-
Synonyms	**IUR ((μg/m^3)$^{-1}$)**	**Source**
Acetylene Trichloride 1-Chloro-2,2-Dichloroethylene Ethinyl Trichloride Ethylene Trichloride Trichlorethylene	2x10^{-6}	O(C)
	IUR Rank	**WOE**
	20 of 24	N/A
	Acute RfC (mg/m^3)	**Source3**
	11	O(A)
	Mol. Weight	**Mol. Formula**
	131.39	C_2HCl_3
	Valid Samples	**Detection Rate**
	4341	3.75%
	Priority	
	III	

Trichloroethene is a manufactured chemical that does not occur naturally. It is a nonflammable colorless liquid with a sweet odor similar to ether or chloroform. It is not a persistent chemical in the atmosphere; its half-life in air is about seven days. Most of the trichloroethene released into the atmosphere is from industrial degreasing operations. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers.

3.54.2 TRICHLOROETHENE IN INDIANA

Trichloroethene is not a commonly detected pollutant in Indiana's air. It has only been detected in about 4% of the 4,341 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about trichloroethene's impact on Indiana's air quality.

IRIS did not contain a reference concentration (RfC) for trichloroethene. However, Cal/EPA had a RfC for trichloroethene and this value was used for this study. The critical effect for trichloroethene could not be determined. IRIS is in the process of reassessing the carcinogenic potential of trichloroethene and has pulled the inhalation unit risk for the pollutant. However, Cal/EPA has an inhalation unit risk published for trichloroethene and this value was used in this study.

Only Whiting High School had detection rates sufficient to calculate an exposure concentration. The median MDL for trichloroethene results in a risk level slightly above U.S. EPA's 1 in 1,000,000 excess cancer risk level. However, the MDLs for trichloroethene have dropped significantly in the last two years and are now below the 1 in 1,000,000 risk level.

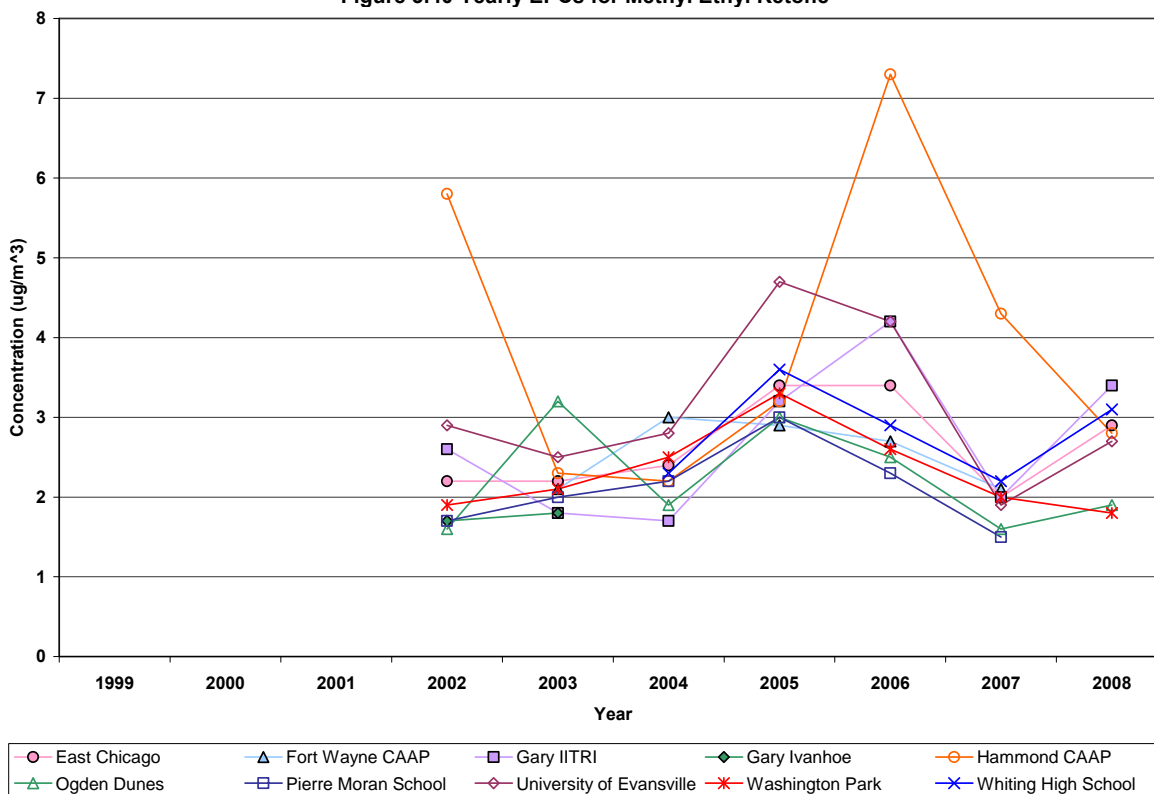| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	2.6%	504			
Fort Wayne CAAP	5.5%	254			
Gary IITRI	0.37%	541			
Gary Ivanhoe	2.4%	206			
Hammond CAAP	3.3%	547			
Ogden Dunes	2.5%	557			
Pierre Moran School	4%	445			
University of Evansville	7.1%	479			
Washington Park	4.3%	532			
Whiting High School	8%	275		0.00028	3.4x10^{-7}

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for trichloroethene were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in trichloroethene concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, trichloroethene has been placed in the middle prioritization category, Category III.

Table 3.54 Yearly EPCs for Trichloroethene

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago		2.1							0.17	
Fort Wayne CAAP									0.21	
Gary IITRI										
Gary Ivanhoe	1.4									
Hammond CAAP									0.50	
Ogden Dunes	1.6									
Pierre Moran School	1.3								0.20	
University of Evansville	1.1								0.42	0.32
Washington Park	1.7								0.17	
Whiting High School									0.18	0.27

Figure 3.54 Yearly EPCs for Trichloroethene

3.54.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/tri-ethy.html
http://www.atsdr.cdc.gov/tfacts19.html
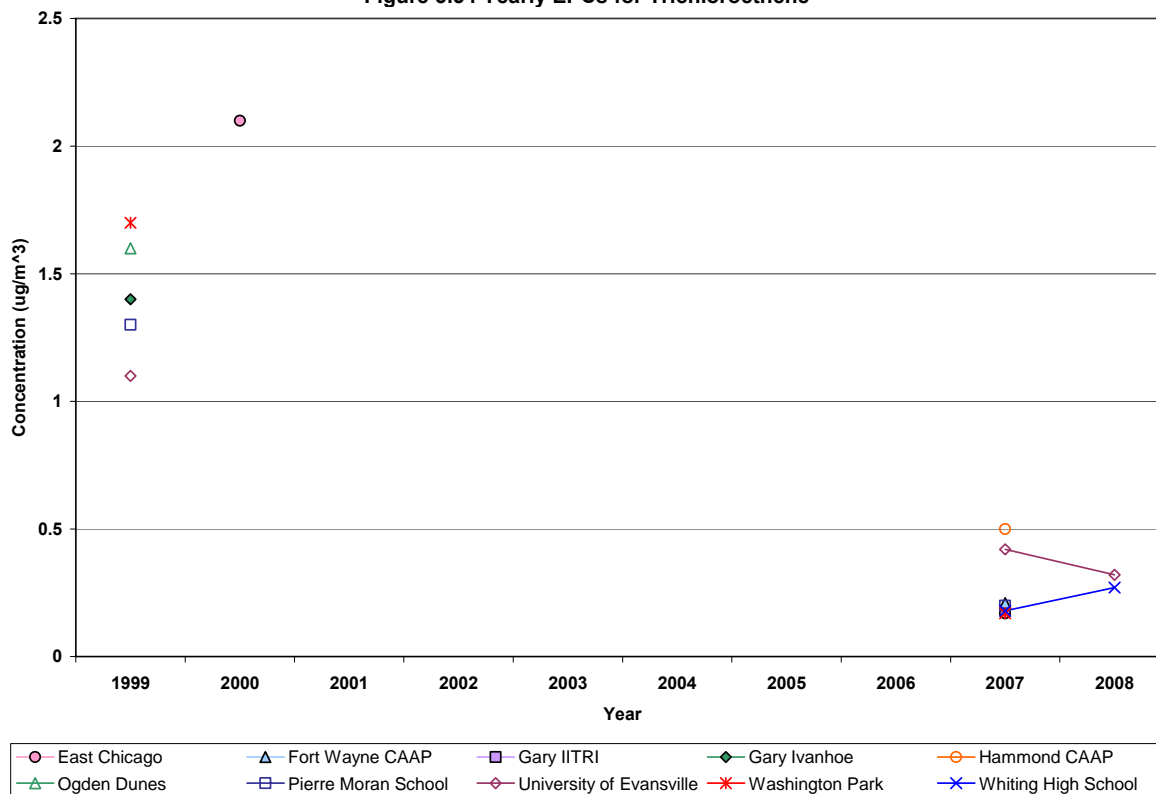
3.55 TRICHLOROFLUOROMETHANE (F-11)

3.55.1 GENERAL INFORMATION

Trichlorofluoromethane is a colorless, odorless, volatile liquid that turns into a gas at temperatures above 75°F. It is no longer manufactured in the United States due to its ozone depleting characteristics. Existing stocks of trichlorofluoromethane are allowed to be used. Trichlorofluoromethane is used as a refrigerant, solvent, and in fire extinguishers.

Pollutant	RfC (mg/m³)	Source
Trichlorofluoromethane	0.7	L(R(H))
CAS #	RfC Rank	Target System
75-69-4	32 of 53	-
Synonyms	IUR ((µg/m³)⁻¹)	Source
Fluorotrichloromethane Freon 11 Monofluorotrichloromethane	N/A	-
	IUR Rank	WOE
	-	N/A
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	137.37	CCl_3F
	Valid Samples	Detection Rate
	4341	88.5%
	Priority	
	III	

3.55.2 TRICHLOROFLUOROMETHANE IN INDIANA

Detections of trichlorofluoromethane are a common occurrence at ToxWatch monitors across the state. It has been found in about 9 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about trichlorofluoromethane.

IRIS did not contain a reference concentration (RfC) for trichlorofluoromethane. However, IDEM's Office of Land Quality had a RfC for trichlorofluoromethane and this value was used for this study. The critical effect for trichlorofluoromethane could not be determined. IRIS has not accessed the carcinogenicity of trichlorofluoromethane. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for trichlorofluoromethane ranged from 0.98 µg/m³ to 1.3 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the University of Evansville monitor, represents a value 500 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for trichlorofluoromethane at every monitoring location analyzed for this report. In addition, detection rates were sufficient to have high confidence in all reported trends. Concentration trends across the state appear to be steady or increasing for the most part.

Due to the high detection rate, steady or increasing trends, and relatively low exposure concentrations, trichlorofluoromethane has been placed in the middle prioritization category, Category III.

| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	89%	504	↗	0.0016	
Fort Wayne CAAP	87%	254	↔	0.0014	
Gary IITRI	89%	541	↗	0.0016	
Gary Ivanhoe	90%	206	↔	0.0016	
Hammond CAAP	89%	547	↗	0.0016	
Ogden Dunes	90%	557	↗	0.0014	
Pierre Moran School	87%	445	↔	0.0016	
University of Evansville	88%	479	↔	0.0019	
Washington Park	86%	532	↗	0.0014	
Whiting High School	90%	275	↗	0.0017	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result; HQ = Hazard Quotient; RE = Risk Estimate

Table 3.55 Yearly EPCs for Trichlorofluoromethane

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago	1.1	1.6	1.1	1.1	1.2	0.91	1.1	1.2	0.98	1.3
Fort Wayne CAAP					1.3	0.96	1.1	1.2	1.0	
Gary IITRI	0.77	1.3	1.1	1.0	1.3	0.90	1.3	2.0	0.98	1.4
Gary Ivanhoe	0.92	1.2	1.2	1.1	1.2					
Hammond CAAP	0.92	1.3	1.1	0.99	1.3	0.94	1.1	1.2	1.2	1.3
Ogden Dunes	0.84	1.2	1.1	1.1	1.1	0.89	1.1	1.2	1.0	1.4
Pierre Moran School	0.93	1.2	1.2	1.1	1.2	0.85	1.4	1.3	1.1	
University of Evansville	1.1	1.5	1.2	1.7	1.3	1.0	1.2	2.2	0.98	2.0
Washington Park	0.96	1.2	1.1	1.0	1.2	0.89	1.1	1.2	1.0	1.5
Whiting High School						1.0	1.1	1.2	1.0	1.7

Figure 3.55 Yearly EPCs for Trichlorofluoromethane

3.55.3 REFERENCES

http://nj.gov/health/eoh/rtkweb/documents/fs/1891.pdf
http://dhss.delaware.gov/dhss/dph/files/trichlfluorfaq.pdf
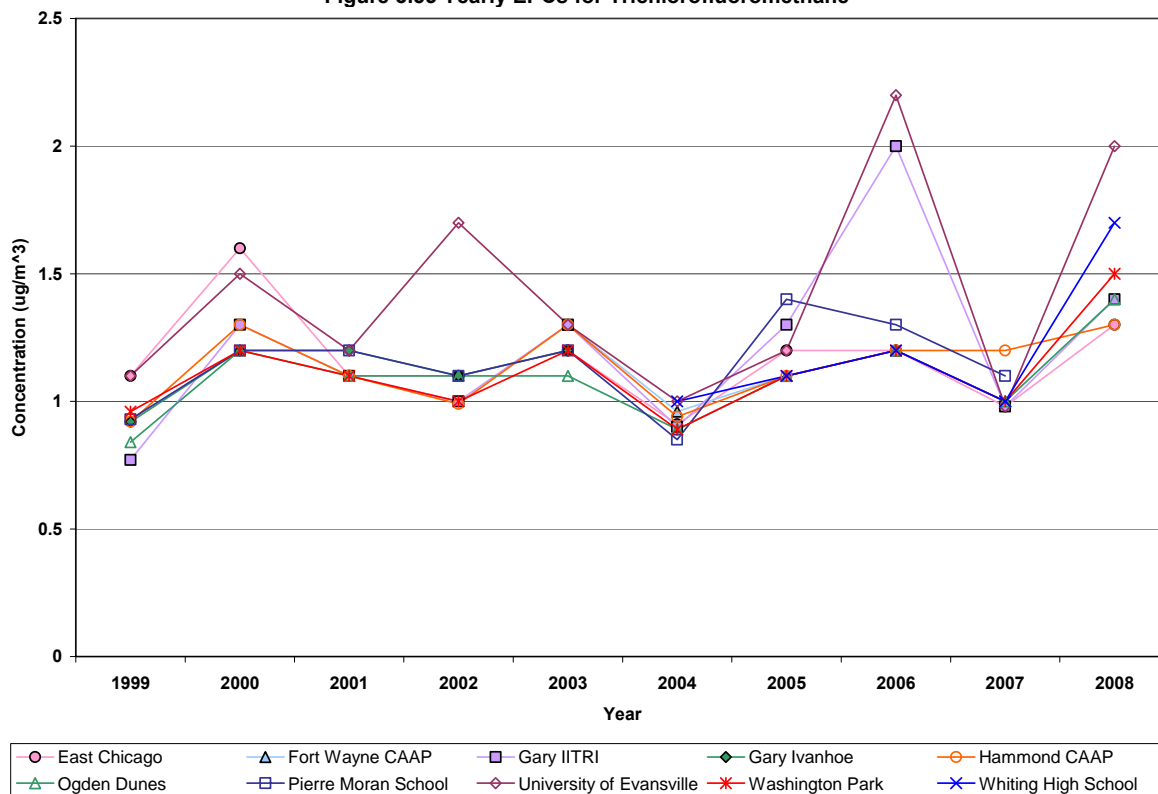
3.56 1,3,5-TRIMETHYLBENZENE

3.56.1 GENERAL INFORMATION

1,3,5-Trimethylbenzene is a clear, colorless, flammable liquid. It is insoluble in water. 1,3,5-trimethylbenzene is a naturally occurring chemical found in coal tar and crude oil. It is used to make dyes, solvents, paint thinners, and plastics. Sources of 1,3,5-trimethylbenzene are: gasoline-powered vehicles, coal-fired power stations, and waste treatment plants.

Pollutant	RfC (mg/m³)	Source
1,3,5-Trimethylbenzene	0.006	L(P)
CAS #	RfC Rank	Target System
108-67-8	6 of 53	-
Synonyms	IUR ((μg/m³)⁻¹)	Source
Mesitylene	N/A	-
	IUR Rank	WOE
	-	
	Acute RfC (mg/m³)	Source
	Mol. Weight	Mol. Formula
	120.19	C_9H_{12}
	Valid Samples	Detection Rate
	4341	17.9%
	Priority	
	II	

3.56.2 1,3,5-TRIMETHYLBENZENE IN INDIANA

Detections of 1,3,5-trimethylbenzene are a moderately common occurrence at ToxWatch monitors. It has been found in about 2 out of 10 valid samples analyzed for the pollutant. Detection rates this low allow only rough conclusions to be drawn about a pollutant's true impact on Indiana's air quality. The trimethylbenzene's (1,3,5- and 1,2,4-) make up a large portion of the neurological hazard index at the monitoring locations where they are found.

IRIS did not contain a reference concentration (RfC) for 1,3,5-trimethylbenzene. However, IDEM's Office of Land Quality had a RfC for 1,3,5-trimethylbenzene and this value was used for this study. IRIS has not accessed the carcinogenicity of 1,3,5-trimethylbenzene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for 1,3,5-Trimethylbenzene ranged from 0.38 μg/m³ to 1.6 μg/m³. The high end of this range is approaching levels that could pose a hazard to human health. The highest exposure concentration, calculated for the Gary Ivanhoe monitor, is only 3 times lower than health protective levels.

Concentration trend analysis was possible for some but not all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. The trends that were calculated were all decreasing.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	13%	504		0.065	
Fort Wayne CAAP	3.5%	254			
Gary IITRI	9.4%	541		0.063	
Gary Ivanhoe	36%	206	↘	0.27	
Hammond CAAP	18%	547		0.07	
Ogden Dunes	7%	557			
Pierre Moran School	32%	445	↘	0.12	
University of Evansville	26%	479	↘	0.15	
Washington Park	29%	532	↘	0.075	
Whiting High School	4.4%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the low detection rate, lack of complete and reliable trend data, and relatively high exposure concentrations, 1,3,5-trimethylbenzene has been placed in the second highest prioritization category, Category II.

Table 3.56 Yearly EPCs for 1,3,5-Trimethylbenzene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago	0.48	0.69	0.89							
Fort Wayne CAAP						0.64				
Gary IITRI	0.43	0.98	0.59							
Gary Ivanhoe	15	0.59	0.69							
Hammond CAAP	0.75	0.77	0.95				0.46	0.41	0.26	
Ogden Dunes	0.39	0.33	0.62							
Pierre Moran School	2.7	0.82	2.1	0.39		0.54	0.46	0.37	0.25	
University of Evansville	4.6	3.3	1.1			0.55	0.40	0.44	0.27	0.30
Washington Park	0.72	0.78	0.76	0.48		0.50	0.44	0.44	0.29	0.29
Whiting High School						0.58				

Figure 3.56 Yearly EPCs for 1,3,5-Trimethylbenzene

3.56.3 REFERENCES

http://cameochemicals.noaa.gov/chemical/4714
http://dhss.delaware.gov/dhss/dph/files/tmb135faq.pdf
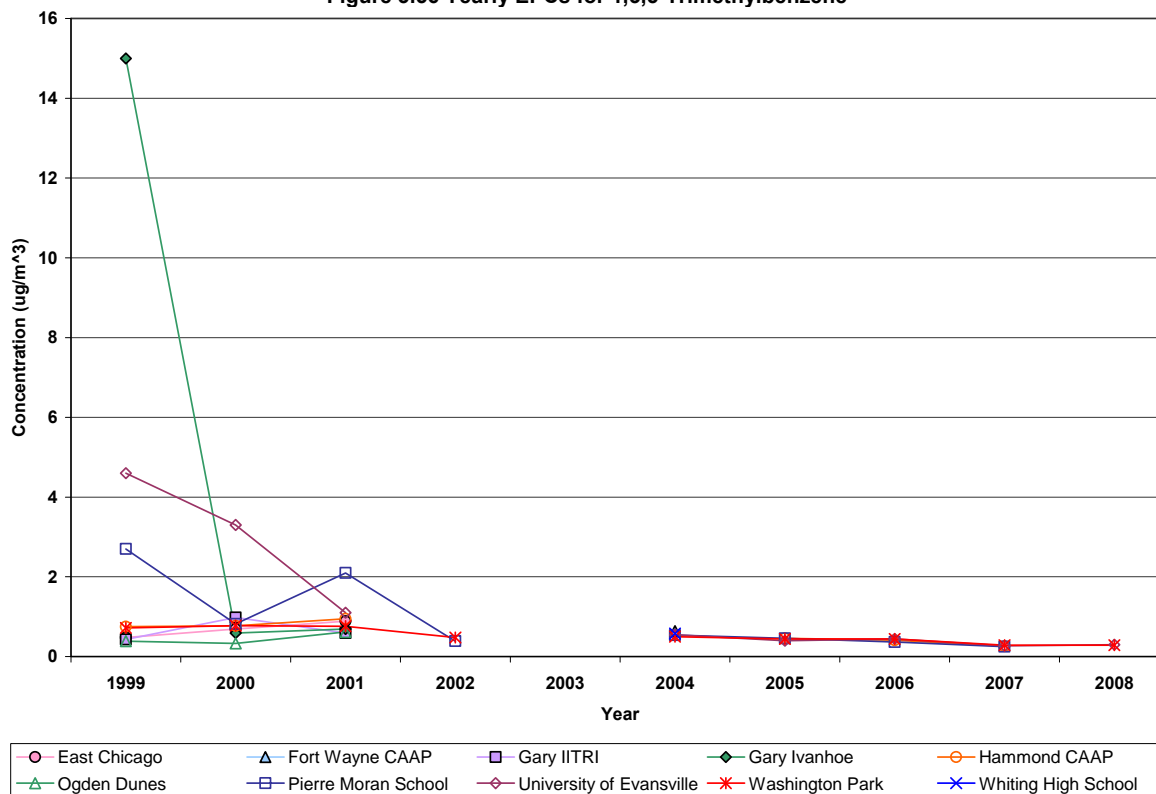
3.57 1,2,4-TRIMETHYLBENZENE

3.57.1 GENERAL INFORMATION

1,2,4-Trimethylbenzene is a clear, colorless, flammable liquid with a sweet odor. 1,2,4-Trimethylbenzene is a naturally occurring chemical found in coal tar and petroleum crude oil. It is a by-product of the production of gasoline. The majority of 1,2,4-trimethylbenzene is used as a gasoline additive.

Pollutant	RfC (mg/m³)	Source
1,2,4-Trimethylbenzene	0.007	L(R(p))
CAS #	**RfC Rank**	**Target System**
95-63-6	7 of 53	-
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Pseudocumene	N/A	-
Pseudocumol	**IUR Rank**	**WOE**
asymmetrical Trimethylbenzene	-	
	Acute RfC (mg/m³)	**Source**
	Mol. Weight	**Mol. Formula**
	120.19	C_9H_{12}
	Valid Samples	**Detection Rate**
	4341	46.92%
	Priority	
	II	

3.57.2 1,2,4-TRIMETHYLBENZENE IN INDIANA

Detections of 1,2,4-trimethylbenzene are a moderately common occurrence at ToxWatch monitors. It has been detected in about 47% of the 4,341 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality. The trimethylbenzene's (1,3,5- and 1,2,4-) make up a large portion of the neurological hazard index at the monitoring locations where they are found.

IRIS did not contain a reference concentration (RfC) for 1,2,4-trimethylbenzene. However, IDEM's Office of Land Quality had a RfC for 1,2,4-trimethylbenzene and this value was used for this study. The critical effect for 1,2,4-trimethylbenzene could not be determined. IRIS has not accessed the carcinogenicity of 1,2,4-trimethylbenzene. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for 1,2,4-Trimethylbenzene ranged from 0.30 µg/m³ to 5.7 µg/m³. The high end of this range is approaching levels that could pose a hazard to human health. The highest exposure concentration, calculated for the Gary Ivanhoe monitor, is only slightly lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for 1,2,4-Trimethylbenzene at every monitoring location analyzed for this report. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be decreasing for the most part.

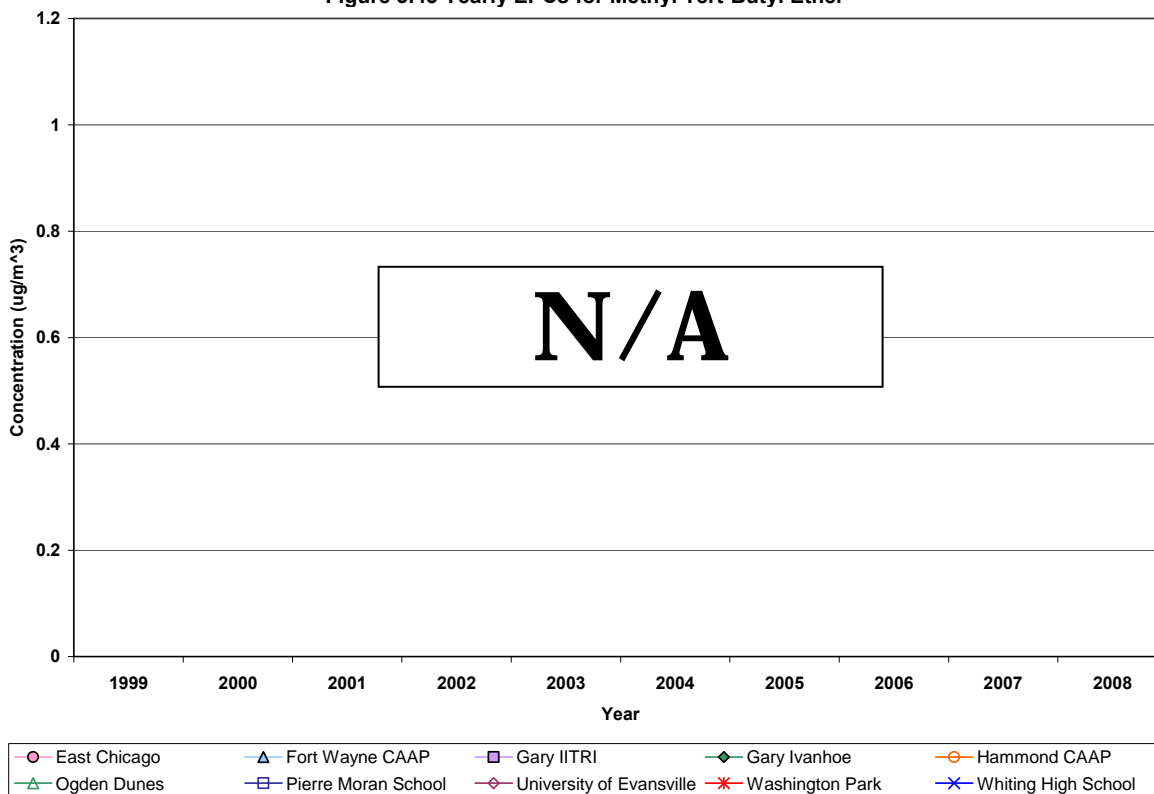| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	43%	504	↘	0.11	
Fort Wayne CAAP	31%	254	↗	0.043	
Gary IITRI	37%	541	↘	0.12	
Gary Ivanhoe	59%	206	↘	0.81	
Hammond CAAP	53%	547	↘	0.17	
Ogden Dunes	35%	557	↘	0.093	
Pierre Moran School	58%	445	↘	0.33	
University of Evansville	52%	479	↘	0.46	
Washington Park	59%	532	↘	0.19	
Whiting High School	41%	275	↗	0.047	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Due to the relatively low detection rate, lack of reliable trend data, apparent decreasing trends, and relatively high exposure concentrations, 1,2,4-Trimethylbenzene has been placed in the second highest prioritization category, Category II.

Table 3.57 Yearly EPCs for 1,2,4-Trimethylbenzene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago	2.6	3.5	2.2				0.52	0.56	0.30	0.28
Fort Wayne CAAP							0.52	0.51	0.33	
Gary IITRI	3.1	4.2	1.5				0.44	0.68	0.23	0.18
Gary Ivanhoe	54	3.4	1.7	0.57						
Hammond CAAP	5.6	4.1	1.7	0.63		0.43	0.69	0.65	0.46	0.41
Ogden Dunes	2.0	2.0	1.4					0.46	0.18	0.17
Pierre Moran School	14	3.6	6.8	1.1		0.5	0.76	0.71	0.45	
University of Evansville	20	15	3.4			0.52	0.72	1.1	0.53	0.66
Washington Park	4.0	3.9	2.1	0.81	0.90	0.89	0.74	0.99	0.71	0.67
Whiting High School						0.44	0.58	0.55	0.33	0.34

Figure 3.57 Yearly EPCs for 1,2,4-Trimethylbenzene

3.57.3 REFERENCES
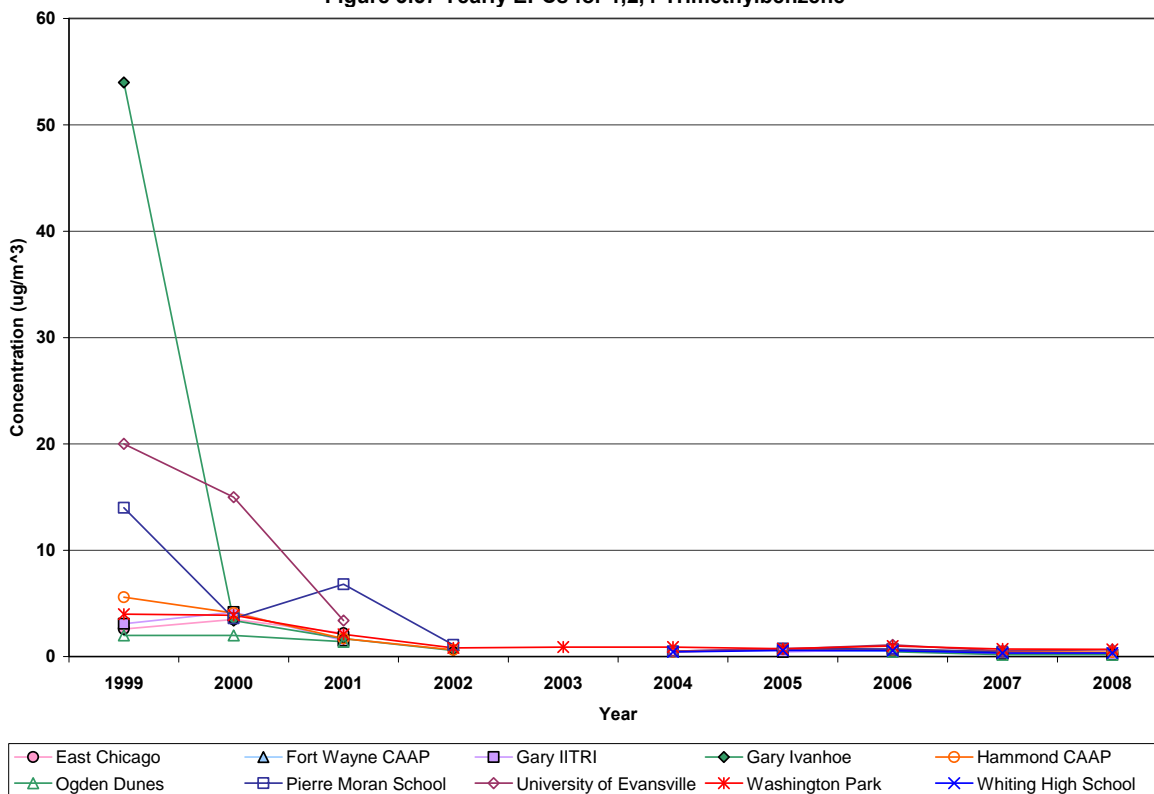
http://nj.gov/health/eoh/rtkweb/documents/fs/2716.pdf
http://www.epa.gov/opptintr/chemfact/s_trimet.txt
http://www.epa.gov/opptintr/chemfact/f_trimet.txt

3.58   VINYL ACETATE

3.58.1   GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Vinyl Acetate	0.2	O(I)
CAS #	**RfC Rank**	**Target System**
108-05-4	22 of 53	Respiratory
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
1-Acetoxyethylene Ethenyl Acetate	N/A	-
	IUR Rank	**WOE**
	-	N/A
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	86.09	$C_4H_6O_2$
	Valid Samples	**Detection Rate**
	1046	81.36%
	Priority	
	V	

Vinyl acetate is a clear, colorless liquid with a sweet, fruity odor. It is very flammable and is water-soluble. Vinyl chloride is not a persistent compound in the air, having a half-life of six hours. Vinyl acetate can be released to the atmosphere from factories that manufacture it or use it. Vinyl acetate is primarily used to make other industrial chemicals such as glues for the packaging and building industries. It is also used to make paints, textiles, and paper.

3.58.2   VINYL ACETATE IN INDIANA

Sampling for vinyl acetate only began in 2006 but detections of the pollutant have been a common occurrence at ToxWatch monitors across the state. It has been found in about 8 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and, if it continues, will allow IDEM to have a high level of confidence in the conclusions drawn about vinyl acetate.

The reference concentration (RfC) for vinyl acetate was found in IRIS. U.S. EPA has high confidence in this RfC. The critical effect for vinyl acetate is respiratory in nature. IRIS has not accessed the carcinogenicity of vinyl acetate. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Exposure concentrations calculated for vinyl acetate ranged from 2.4 µg/m³ to 10 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Hammond CAAP monitor, represents a value 20 times lower than health protective levels.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	80%	127	↘	0.022	
Fort Wayne CAAP	97%	71	↗	0.02	
Gary IITRI	77%	132	↘	0.017	
Gary Ivanhoe	0%	0			
Hammond CAAP	83%	134	↘	0.05	
Ogden Dunes	74%	133	↘	0.012	
Pierre Moran School	93%	70	↗	0.022	
University of Evansville	83%	121	↘	0.018	
Washington Park	76%	123	↘	0.023	
Whiting High School	82%	135	↘	0.023	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates were sufficient to conduct concentration trend analysis for vinyl acetate at nearly all monitoring locations. Concentration trends across the state appear to be decreasing for the most part.

Due to the high detection rate, apparent decreasing trends, and relatively low exposure concentrations, Vinyl Acetate has been placed in the lowest prioritization category, Category V.

Table 3.58 Yearly EPCs for Vinyl Acetate

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago								8.0	5.2	4.1
Fort Wayne CAAP								4.2	4.5	
Gary IITRI								5.5	4.8	2.4
Gary Ivanhoe										
Hammond CAAP								5.9	17	6.7
Ogden Dunes								2.1	3.4	2.6
Pierre Moran School								4.8	4.6	
University of Evansville								5.5	5.0	2.2
Washington Park								9.5	6.1	3.6
Whiting High School								6.3	6.4	3.5

Figure 3.58 Yearly EPCs for Vinyl Acetate

3.58.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/vinylace.html
http://www.atsdr.cdc.gov/tfacts59.html
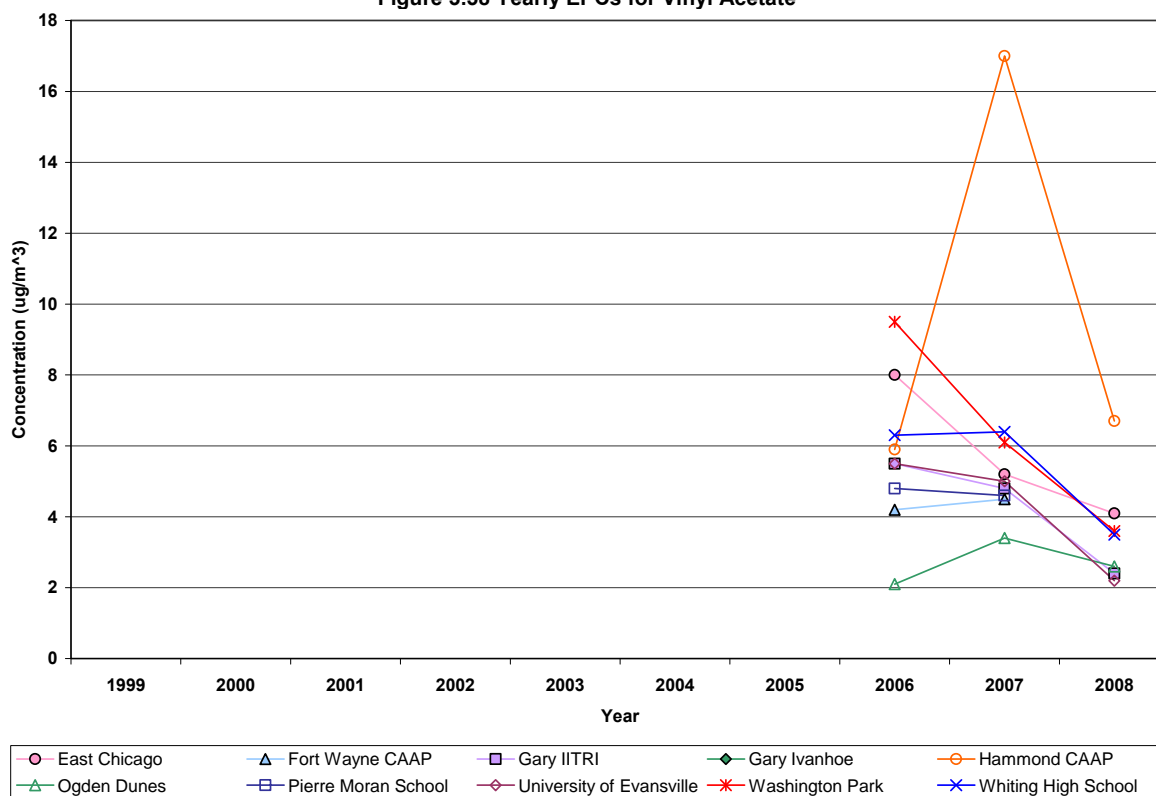
3.59 VINYL CHLORIDE

3.59.1 GENERAL INFORMATION

Pollutant	RfC (mg/m^3)	Source
Vinyl Chloride	0.1	O(I)
CAS #	**RfC Rank**	**Target System**
75-01-4	18 of 53	Hepatic
Synonyms	**IUR ((μg/m^3)$^{-1}$)**	**Source**
Chloroethylene	8.8x10^{-6}	O(I)
Chloroethene	**IUR Rank**	**WOE**
	14 of 24	A
	Acute RfC (mg/m^3)	**Source**
	1.3	O(A)
	Mol. Weight	**Mol. Formula**
	62.5	C$_2$H$_3$Cl
	Valid Samples	**Detection Rate**
	3211	0.09%
	Priority	
	III	

Vinyl chloride is a manufactured chemical that does not occur naturally. It is a colorless gas with a mild, sweet odor; is slightly soluble in water and is very flammable. The majority of vinyl chloride is used to make polyvinyl chloride (PVC). PVC is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is also used in making furniture, automobile upholstery, wall coverings, housewares, and automotive parts.

3.59.2 VINYL CHLORIDE IN INDIANA

Vinyl Chloride has a very low detection rate statewide. In fact, it has only been detected in 3 of the 3,211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about vinyl chloride's impact on Indiana's air quality.

The reference concentration (RfC) for vinyl chloride was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for vinyl chloride is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of vinyl chloride places it in Category A. This means that vinyl chloride is a known human carcinogen based on adequate human epidemiological data.

Detection rates for vinyl chloride were insufficient to calculate exposure concentrations for any of the monitoring locations. In addition, the median MDL corresponds to an increased cancer risk of 1.4 in 1,000,000. This is slightly above the negligible risk level of 1 in 1,000,000 set forth by U.S. EPA.

Detection rates for vinyl chloride were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in vinyl chloride concentrations over time has been conducted.

Due to the very low detection rate, lack of trend data, and relatively high MDL, vinyl chloride has been placed in the middle prioritization category, Category III.

Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0%	363			
Fort Wayne CAAP	0%	226			
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0.25%	397			
Pierre Moran School	0.32%	316			
University of Evansville	0%	359			
Washington Park	0%	387			
Whiting High School	0%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Table 3.59 Yearly EPCs for Vinyl Chloride

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP										
Gary IITRI										
Gary Ivanhoe				N/A						
Hammond CAAP										
Ogden Dunes										
Pierre Moran School										
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.59 Yearly EPCs for Vinyl Chloride

N/A

Legend: East Chicago, Fort Wayne CAAP, Gary IITRI, Gary Ivanhoe, Hammond CAAP, Ogden Dunes, Pierre Moran School, University of Evansville, Washington Park, Whiting High School

3.59.3 REFERENCES

http://www.atsdr.cdc.gov/tfacts20.html
http://www.epa.gov/ttn/atw/hlthef/vinylchl.html
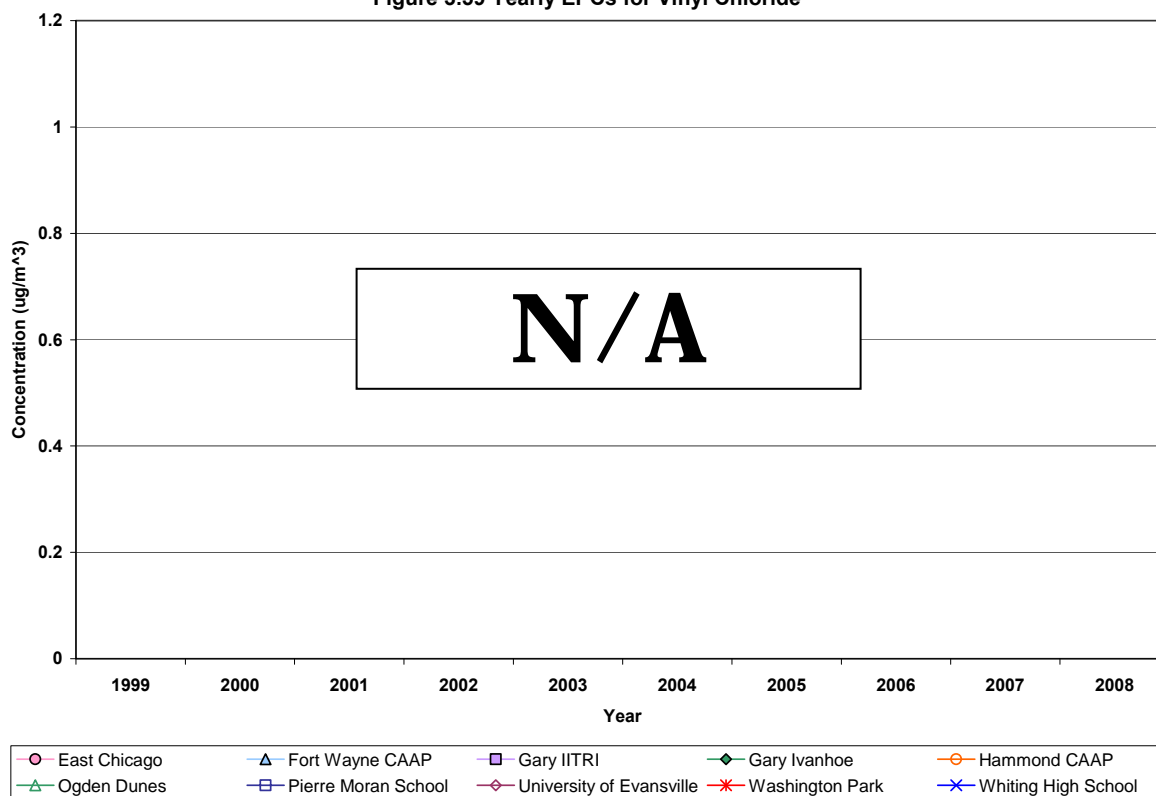
3.60 VINYLIDENE CHLORIDE

3.60.1 GENERAL INFORMATION

Pollutant	RfC (mg/m³)	Source
Vinylidene Chloride	0.2	O(I)
CAS #	**RfC Rank**	**Target System**
75-35-4	22 of 53	Hepatic
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
1,1-Dichloroethene	N/A	-
Vinylidene Dichloride	**IUR Rank**	**WOE**
	-	C
	Acute RfC (mg/m³)	**Source2**
	Mol. Weight	**Mol. Formula**
	96.94	$C_2H_2Cl_2$
	Valid Samples	**Detection Rate**
	3211	1.56%
	Priority	
	III	

Vinylidene chloride is a colorless liquid with a mild sweet odor resembling that of chloroform. It is only slightly soluble in water. Vinylidene chloride can be released to the atmosphere from factories that manufacture it or use it. The main use for vinylidene chloride is in the production of food packaging, such as SARAN® and VELON® wraps. Other uses include use as a flame retardant coating for fiber and carpet backing and in piping, coating for steel pipes, and adhesive applications.

3.60.2 VINYLIDENE CHLORIDE IN INDIANA

Vinylidene Chloride is not a commonly detected pollutant in Indiana's air. It has only been detected in about 2% of the 3211 valid samples analyzed for the pollutant. Detection rates this low make it very difficult to draw any conclusions about Vinylidene Chloride's impact on Indiana's air quality.

The reference concentration (RfC) for vinylidene chloride was found in IRIS. U.S. EPA has medium confidence in this RfC. The critical effect for vinylidene chloride is hepatic in nature. U.S. EPA's weight of evidence (WOE) classification of vinylidene chloride places it in Category C. This means that vinylidene chloride is a possible human carcinogen based on limited animal and/or human test data. Despite this, IRIS did not list an inhalation unit risk for the vinylidene chloride. No other source in the hierarchy contained an inhalation unit risk for the pollutant.

Detection rates were too low to calculate exposure concentrations for most monitors. The exception to this was the Fort Wayne CAAP monitor which had a hazard quotient of 0.0023. This indicates that concentrations at Fort Wayne CAAP are almost 500 times lower than levels that could pose a risk to human health.

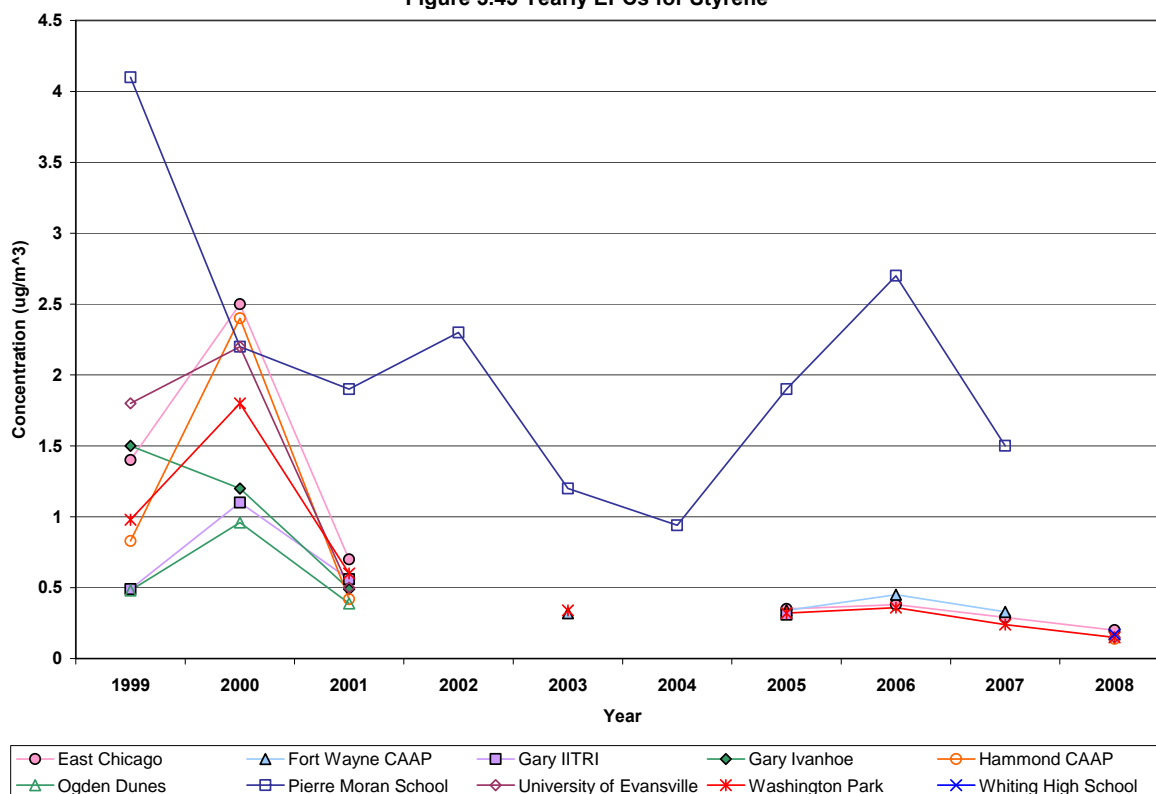| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	0.83%	363			
Fort Wayne CAAP	11%	226		0.0023	
Gary IITRI	0%	391			
Gary Ivanhoe	0%	105			
Hammond CAAP	0.26%	392			
Ogden Dunes	0.25%	397			
Pierre Moran School	5.4%	316			
University of Evansville	0.28%	359			
Washington Park	0%	387			
Whiting High School	0.73%	275			

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Detection rates for vinylidene chloride were too low to perform any kind of concentration trend analysis. As such, no analysis of the change in vinylidene chloride concentrations over time has been conducted.

Due to the very low detection rate and lack of trend data, vinylidene chloride has been placed in the middle prioritization category, Category III.

Table 3.60 Yearly EPCs for Vinylidene Chloride

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago										
Fort Wayne CAAP						0.51				
Gary IITRI										
Gary Ivanhoe										
Hammond CAAP										
Ogden Dunes										
Pierre Moran School							0.84			
University of Evansville										
Washington Park										
Whiting High School										

Figure 3.60 Yearly EPCs for Vinylidene Chloride

3.60.3 REFERENCES

http://www.epa.gov/ttn/atw/hlthef/di-ethyl.html
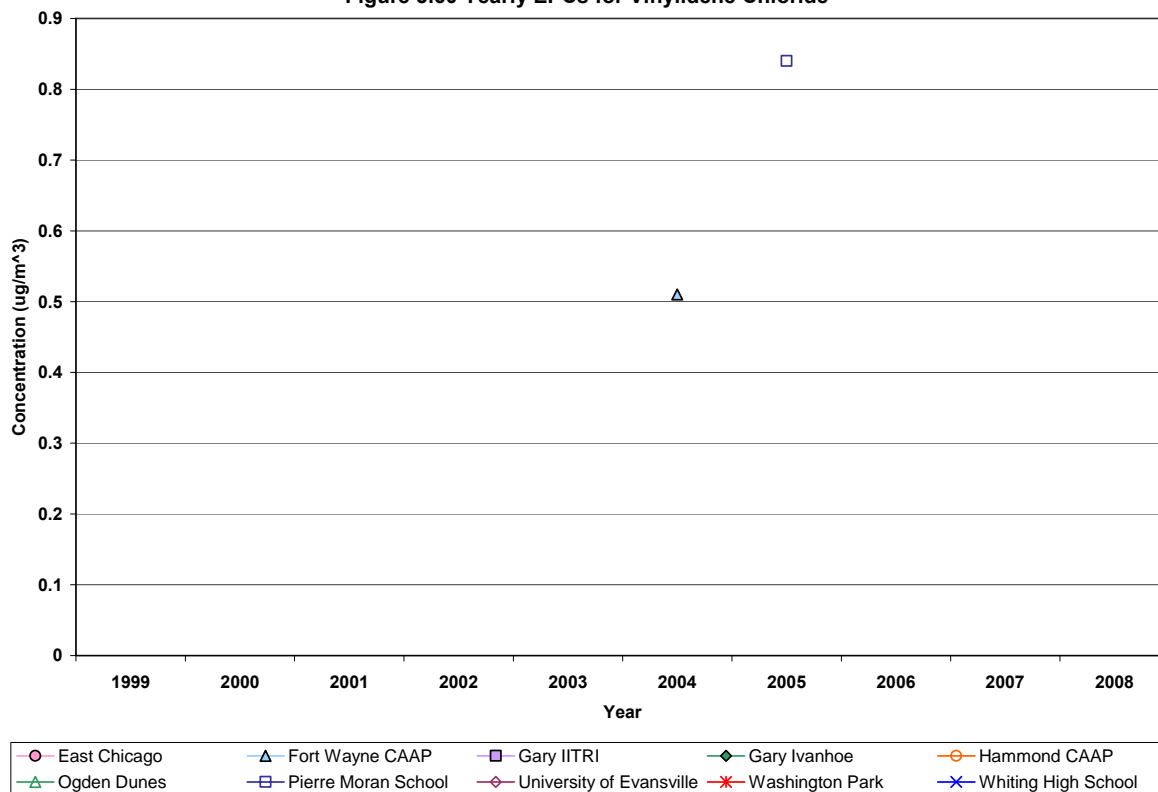
3.61 O-XYLENE

3.61.1 GENERAL INFORMATION

Xylenes are clear, colorless liquid chemicals with a strong, sweet odor. Xylenes are both man-made and found naturally in the environment. Xylenes occur naturally in petroleum and coal tar and can be detected in air, water and soil. Xylenes are added to gasoline to improve combustion and reduce "knocking" in engines. They are also used as solvents in making paints, drugs, dyes, insecticides, lacquers and enamels.

Pollutant	RfC (mg/m³)	Source
o-Xylene	0.1	O(I)
CAS #	RfC Rank	Target System
95-47-6	18 of 53	Neurological
Synonyms	IUR ((µg/m³)$^{-1}$)	Source
Dimethylbenzene	N/A	-
1,2-Dimethylbenzene	IUR Rank	WOE
	-	N/A
	Acute RfC (mg/m³)	Source
	8.7	O(A)
	Mol. Weight	Mol. Formula
	106.17	C_8H_{10}
	Valid Samples	Detection Rate
	4341	35.78%
	Priority	
	IV	

3.61.2 O-XYLENE IN INDIANA

Analytical procedures separate o-xylene from m&p-xylenes. Because of this, the two groups are discussed separately, despite the fact that they share the same toxicity data, molecular formula, critical effects, etc.

Detections of o-xylene are a moderately common occurrence at ToxWatch monitors. It has been detected in about 36% of the 4,341 valid samples analyzed for the pollutant. Detection rates of this quality allow moderately accurate conclusions to be drawn about a pollutant's true impact on Indiana's air quality.

Exposure concentrations calculated for o-Xylene ranged from 0.23 µg/m³ to 0.98 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Gary Ivanhoe monitor, represents a value 100 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for O-Xylene at nearly all monitoring locations. However, none of the monitoring locations had sufficient detection rates to place high confidence on the trend analysis that was performed. Concentration trends across the state appear to be decreasing for the most part.

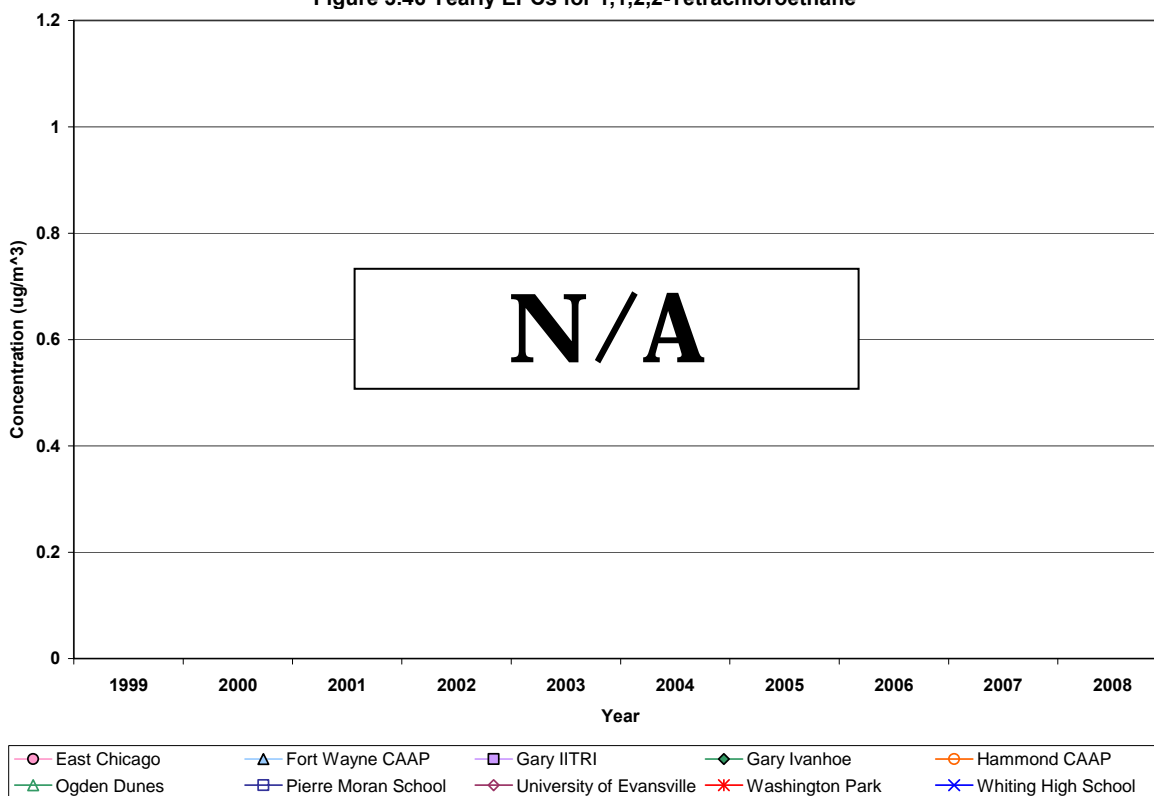| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	33%	504	↘	0.0049	
Fort Wayne CAAP	27%	254	↗	0.0025	
Gary IITRI	16%	541		0.0033	
Gary Ivanhoe	37%	206	↘	0.0098	
Hammond CAAP	43%	547	↔	0.0062	
Ogden Dunes	14%	557		0.0033	
Pierre Moran School	51%	445	↘	0.0067	
University of Evansville	44%	479	↘	0.0076	
Washington Park	58%	532	↘	0.0086	
Whiting High School	34%	275	↗	0.0023	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Based on the very low hazard quotients, generally decreasing trends, and moderate detection rate, o-Xylene has been placed in the second lowest prioritization category, Category IV.

Table 3.61 Yearly EPCs for o-Xylene

Monitoring Location	1999 μg/m³	2000 μg/m³	2001 μg/m³	2002 μg/m³	2003 μg/m³	2004 μg/m³	2005 μg/m³	2006 μg/m³	2007 μg/m³	2008 μg/m³
East Chicago	0.76	2.9	0.90			0.85	0.56	0.53	0.22	0.24
Fort Wayne CAAP						0.62	0.56	0.55	0.26	
Gary IITRI	0.56	1.6	1.2						0.18	0.17
Gary Ivanhoe	2.5	2.1	0.68	0.49						
Hammond CAAP	0.83	3.5	0.92	0.60	0.62	0.65	0.57	0.57	0.40	0.42
Ogden Dunes	0.48	1.5	1.1						0.16	0.15
Pierre Moran School	1.7	1.6	1.4	0.76	0.66	0.81	0.60	0.66	0.37	
University of Evansville	1.6	3.3	1.2	0.51	0.55	0.60	0.72	0.77	0.46	0.51
Washington Park	1.4	2.9	1.3	0.84	0.88	0.81	0.68	0.83	0.57	0.56
Whiting High School							0.63	0.50	0.25	0.26

Figure 3.61 Yearly EPCs for o-Xylene

3.61.3 REFERENCES

http://dhss.delaware.gov/dhss/dph/files/xylenesfaq.txt
http://nj.gov/health/eoh/rtkweb/documents/fs/2014.pdf
http://www.atsdr.cdc.gov/tfacts71.html
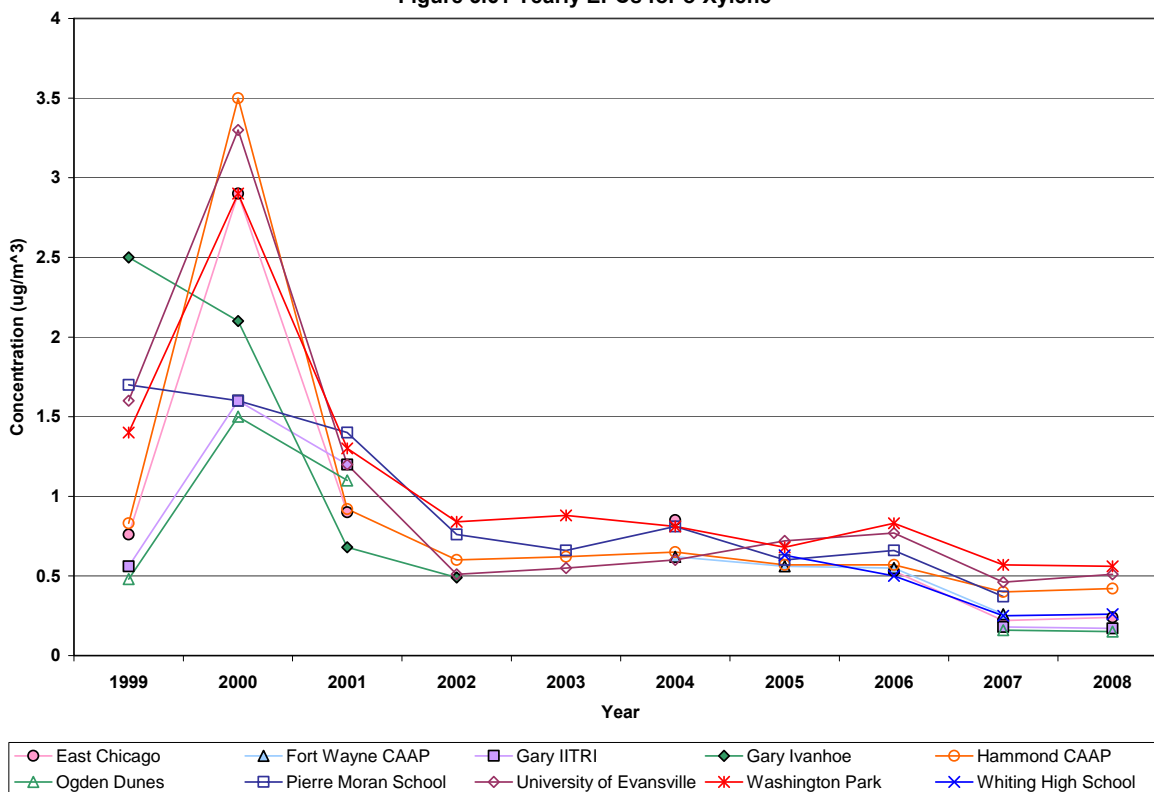
3.62 M&P-XYLENES

3.62.1 GENERAL INFORMATION

Xylenes are clear, colorless liquid chemicals with a strong, sweet odor. Xylenes are both man-made and found naturally in the environment. Xylenes occur naturally in petroleum and coal tar and can be detected in air, water and soil. Xylenes are added to gasoline to improve combustion and reduce "knocking" in engines. They are also used as solvents in making paints, drugs, dyes, insecticides, lacquers and enamels.

Pollutant	RfC (mg/m³)	Source
m&p-Xylenes	0.1	O(I)
CAS #	**RfC Rank**	**Target System**
1330-20-7	18 of 53	Neurological
Synonyms	**IUR ((µg/m³)⁻¹)**	**Source**
Dimethylbenzene	N/A	-
1,3-dimethylbenzene	**IUR Rank**	**WOE**
1,4-dimethylbenzene	-	N/A
	Acute RfC (mg/m³)	**Source**
	8.7	O(A)
	Mol. Weight	**Mol. Formula**
	318.5	C_8H_{10}
	Valid Samples	**Detection Rate**
	4341	80.35%
	Priority	
	V	

3.62.2 M&P-XYLENES IN INDIANA

Analytical procedures separate o-xylene from m&p-xylenes. Because of this, the two groups are discussed separately, despite the fact that they share the same toxicity data, molecular formula, critical effects, etc.

Detections of m&p-xylenes are a common occurrence at ToxWatch monitors across the state. It has been found in about 8 out of 10 valid samples analyzed for the pollutant. This is a very high detection rate and allows IDEM to have a high level of confidence in the conclusions drawn about m&p-xylenes.

Exposure concentrations calculated for m&p-xylenes ranged from 0.74 µg/m³ to 1.9 µg/m³. These concentrations are well below levels that could pose a hazard to human health. Even the highest exposure concentration, calculated at the Washington Park monitor, represents a value 50 times lower than health protective levels.

Detection rates were sufficient to conduct concentration trend analysis for m&m-xylenes at every monitoring location analyzed for this report. Concentration trends across the state appear to be decreasing for the most part.

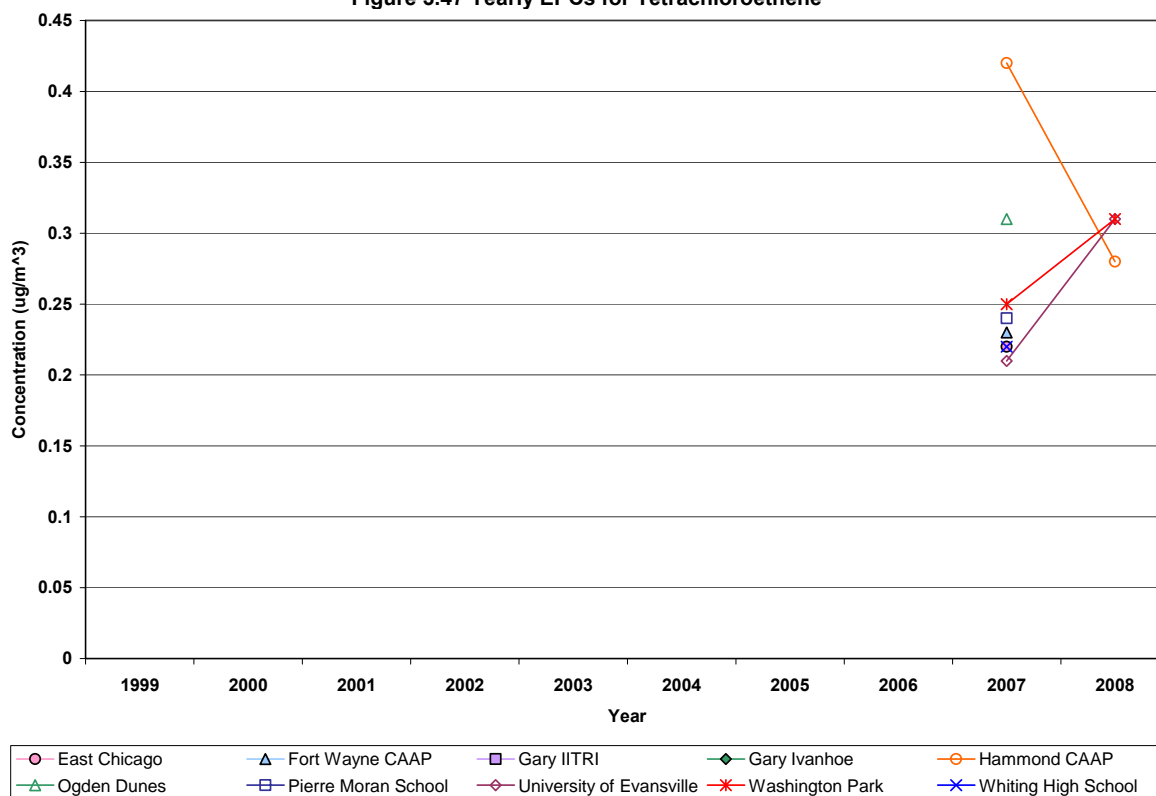| Monitoring Location	DR	#	Trend	HQ	RE
East Chicago	78%	504	↘	0.011	
Fort Wayne CAAP	83%	254	↗	0.0074	
Gary IITRI	68%	541	↘	0.0096	
Gary Ivanhoe	90%	206	↘	0.011	
Hammond CAAP	86%	547	↘	0.013	
Ogden Dunes	63%	557	↘	0.0075	
Pierre Moran School	92%	445	↘	0.016	
University of Evansville	83%	479	↘	0.013	
Washington Park	93%	532	↘	0.019	
Whiting High School	76%	275	↔	0.0075	

DR = Detection Rate; # = Number of Samples; Trend = Mann-Kendall Trend Result;
HQ = Hazard Quotient; RE = Risk Estimate

Because of the high detection rate, low hazard quotients, and overall decreasing trends, m&p-Xylenes have been placed in the lowest prioritization category, Category V.

Table 3.62 Yearly EPCs for m&p-Xylenes

Monitoring Location	1999 µg/m³	2000 µg/m³	2001 µg/m³	2002 µg/m³	2003 µg/m³	2004 µg/m³	2005 µg/m³	2006 µg/m³	2007 µg/m³	2008 µg/m³
East Chicago	1.8	2.1	2.7	0.66	0.59	2.4	0.74	0.76	0.62	0.68
Fort Wayne CAAP					0.83	1.2	0.74	0.69	0.68	
Gary IITRI	1.2	1.3	4.8	0.41	0.35	0.83	0.53	0.59	0.46	0.46
Gary Ivanhoe	1.8	1.6	1.4	0.56	0.64					
Hammond CAAP	2.1	2.2	2.5	1.0	1.1	1.3	1.1	0.91	1.1	1.3
Ogden Dunes	1.0	0.83	3.8	0.4	0.25	0.41	0.35	0.40	0.41	0.43
Pierre Moran School	3.3	2.5	3.4	1.2	1.4	1.5	1.1	1.2	0.98	
University of Evansville	2.1	2.7	2.9	0.71	0.86	1.1	1.0	1.1	1.2	1.3
Washington Park	3.6	3.6	3.2	1.7	2.2	1.8	1.4	1.5	1.5	1.5
Whiting High School						1.1	0.95	0.76	0.67	0.78

Figure 3.62 Yearly EPCs for m&p-Xylenes

3.62.3 REFERENCES

http://dhss.delaware.gov/dhss/dph/files/xylenesfaq.txt
http://nj.gov/health/eoh/rtkweb/documents/fs/2014.pdf
http://www.atsdr.cdc.gov/tfacts71.html
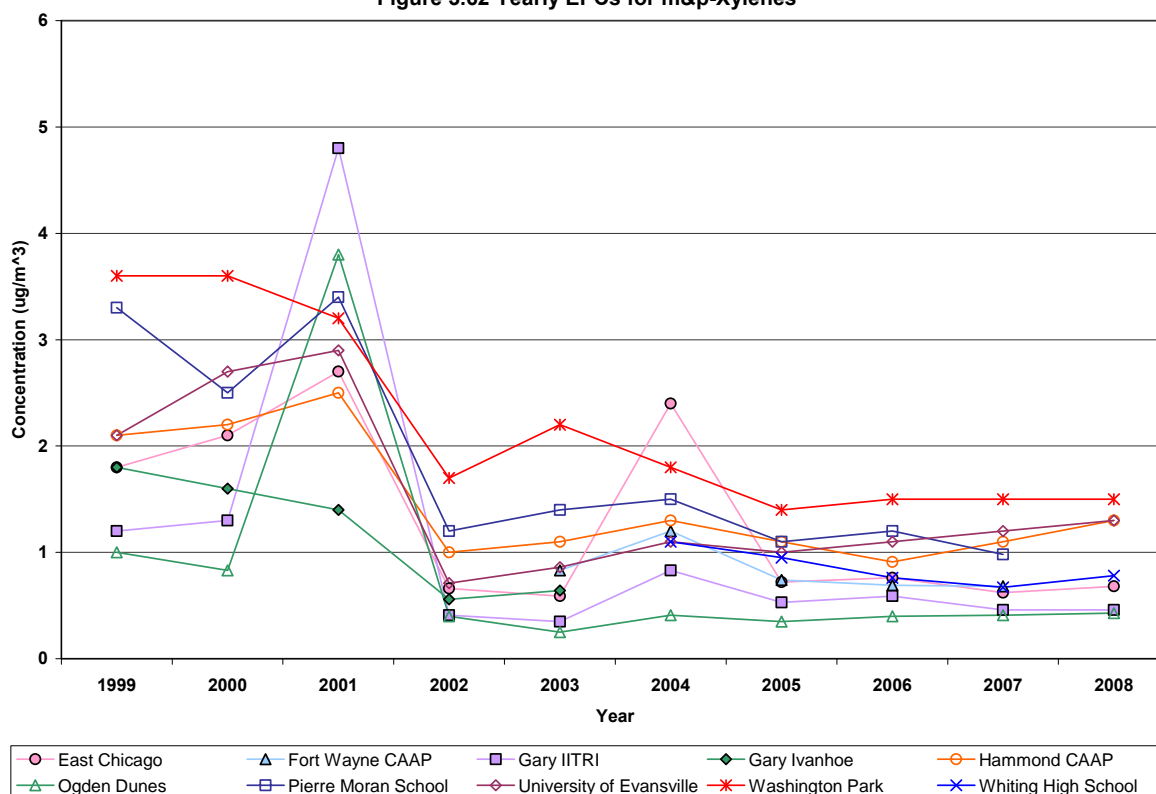
APPENDIX A

YEARLY SUMMARY TABLES

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	86%	29	1.1	0.83	3.0	3.0	1.3	0.03	O(I)	0.0000078	O(I)	0.045	1.0×10^{-5}
Bromomethane	74-83-9	0%	29	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	29	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	14%	29	0.69	0.51	2.2	2.2	0.87	1	O(C)			0.00087	N/A
Chloroethane	75-00-3	0%	29	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	29	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	79%	29	0.74	0.41	1.5	1.5	0.89	0.09	O(I)			0.0098	N/A
Cyclohexane	100-82-7	55%	29	0.38	0.23	1.2	1.0	0.45	6	I			0.000075	N/A
1,2-Dibromoethane	106-93-4	0%	29	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	29	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	3.4%	29	N/A	N/A	0.30	0.29	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	29	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	29	2.4	0.74	4.9	4.0	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	29	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	29	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	29	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	24%	29	0.42	0.19	1.1	0.87	0.49	1	O(A)	4.7×10^{-7}	O(I)	0.00049	2.3×10^{-7}
1,2-Dichloropropane	78-87-5	3.4%	29	N/A	N/A	4.9	1.3	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	29	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	29	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.4%	29	N/A	N/A	6.5	1.7	N/A					N/A	N/A
Ethylbenzene	100-41-4	93%	29	0.52	0.32	1.2	1.2	0.61	1	O(I)	0.0000025	C	0.00061	1.5×10^{-6}
p-Ethyltoluene	622-96-8	31%	29	0.32	0.28	1.7	0.69	0.42					N/A	N/A
Heptane	142-82-5	72%	29	0.49	0.41	1.5	1.5	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	3.4%	29	N/A	N/A	0.32	0.32	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	86%	29	1.1	0.88	3.3	2.9	1.3	0.7	O(I)			0.0019	N/A
Propene	115-07-1	100%	29	2.4	0.89	5.5	4.1	2.8	3	C			0.00092	N/A
Styrene	100-42-5	83%	29	1.1	1.1	5.1	3.2	1.4	1	O(I)			0.0014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	29	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	29	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	29	2.9	1.5	6.7	5.3	3.4	5	O(I)			0.00068	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	24%	29	0.48	0.092	0.84	0.71	0.52					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.4%	29	N/A	N/A	1.2	0.59	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	3.4%	29	N/A	N/A	2.3	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	3.4%	29	N/A	N/A	0.82	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	29	N/A	N/A	0.84	0.86	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	69%	29	0.96	0.52	2.9	1.9	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	52%	29	0.41	0.19	1.0	0.89	0.48	0.006	L(P)			0.08	N/A
1,2,4-Trimethylbenzene	95-63-6	90%	29	2.0	1.9	9.2	5.4	2.6	0.007	L(R(p))			0.37	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	29	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	29	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	52%	29	0.65	0.30	1.6	1.4	0.74	0.1	O(I)			0.0074	N/A
m+p-Xylenes	106-42-3	100%	29	1.5	0.87	3.4	3.3	1.8	0.1	O(I)			0.018	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	38	0.93	0.48	2.1	2.0	1.1	0.03	O(I)	0.0000078	O(I)	0.035	8.2×10^{-6}
Bromomethane	74-83-9	39%	38	0.066	0.14	0.78	0.35	0.11	0.005	O(I)			0.022	N/A
Carbon Tetrachloride	56-23-5	5.3%	38	1.8	0.069	2.1	1.7	1.8	0.19	O(D-A)	0.000015	O(I)	0.0096	2.7×10^{-5}
Chlorobenzene	108-90-7	2.6%	38	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	26%	38	0.17	0.34	1.1	1.1	0.26	10	O(I)			0.000026	N/A
Chloroform	67-66-3	2.6%	38	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	100%	38	1.3	0.70	4.4	3.1	1.5	0.09	O(I)			0.016	N/A
Cyclohexane	100-82-7	66%	38	0.41	0.26	1.3	1.1	0.48	6	I			0.00008	N/A
1,2-Dibromoethane	106-93-4	2.6%	38	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.3%	38	N/A	N/A	0.30	0.30	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	18%	38	0.13	0.22	0.78	0.72	0.19	0.8	O(I)	0.000011	O(C)	0.00024	2.1×10^{-6}
o-Dichlorobenzene	95-50-1	2.6%	38	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	89%	38	2.6	1.3	7.7	5.9	3.0	1.5	ACGIH			0.002	N/A
1,1-Dichloroethane	75-34-3	5.3%	38	0.13	0.073	0.45	0.41	0.15	0.5	O(H)	0.0000016	O(C)	0.0003	2.4×10^{-7}
1,2-Dichloroethane	107-06-2	13%	38	0.053	0.089	0.45	0.28	0.077	2.4	O(A)	0.000026	O(I)	0.000032	2.0×10^{-6}
c-1,2-Dichloroethene	156-59-2	16%	38	0.17	0.38	0.75	0.51	0.28	0.03	R			0.0094	N/A
Dichloromethane	75-09-2	37%	38	0.59	0.52	2.7	2.0	0.73	1	O(A)	4.7×10^{-7}	O(I)	0.00073	3.4×10^{-7}
1,2-Dichloropropane	78-87-5	32%	38	0.22	0.36	1.3	0.92	0.32	0.004	O(I)	0.000019	O(R)	0.08	6.1×10^{-6}
c-1,3-Dichloropropene	10061-01-3	7.9%	38	0.24	0.77	1.2	1.2	0.45					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	21%	38	0.23	0.45	0.77	0.77	0.36	0.02	L(IDEM)	0.000004		0.018	1.5×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	38	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	100%	38	0.56	0.33	1.3	1.2	0.65	1	O(I)	0.0000025	C	0.00065	1.6×10^{-6}
p-Ethyltoluene	622-96-8	68%	38	0.43	0.59	3.3	2.0	0.59					N/A	N/A
Heptane	142-82-5	97%	38	0.94	0.98	5.8	2.4	1.2	0.43	ACGIH			0.0029	N/A
Hexachlorobutadiene	87-68-3	11%	38	0.34	0.91	0.75	0.75	0.61	0.09	O(P-C)	0.000022	O(I)	0.0068	1.3×10^{-5}
Hexane	110-54-3	100%	38	1.3	0.84	3.9	2.7	1.5	0.7	O(I)			0.0022	N/A
Propene	115-07-1	100%	38	2.4	4.8	30	8.4	3.8	3	C			0.0013	N/A
Styrene	100-42-5	84%	38	1.5	3.3	20	5.5	2.5	1	O(I)			0.0025	N/A
1,1,2,2-Tetrachloroethane	79-34-5	21%	38	0.11	0.20	0.41	0.41	0.17			0.000058	O(I)	N/A	9.9×10^{-6}
Tetrachloroethene (PCE)	127-18-4	18%	38	0.12	0.29	1.4	0.88	0.20	0.27	O(A)	0.0000059	O(C)	0.00075	1.2×10^{-6}
Toluene	108-88-3	100%	38	12	45	290	12	25	5	O(I)			0.005	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	76%	38	0.74	0.41	2.6	1.5	0.84					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	38	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	2.6%	38	N/A	N/A	1.1	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	16%	38	0.10	0.21	1.0	0.44	0.16	0.4	O(P-C)	0.000016	O(I)	0.0004	2.5×10^{-6}
Trichloroethene (TCE)	79-01-6	13%	38	1.9	0.59	5.1	2.3	2.1	0.6	O(C)	0.000002	O(C)	0.0035	4.2×10^{-6}
Trichlorofluoromethane (F-11)	75-69-4	95%	38	1.3	0.67	4.7	2.4	1.6	0.7	L(R(h))			0.0022	N/A
1,3,5-Trimethylbenzene	108-67-8	45%	38	0.49	0.64	3.7	2.2	0.69	0.006	L(P)			0.11	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	38	3.0	2.0	8.4	7.9	3.5	0.007	L(R(p))			0.50	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	7.9%	38	0.033	0.059	0.51	0.51	0.051	0.1	O(I)	0.0000088	O(I)	0.00051	4.5×10^{-7}
Vinylidene Chloride	75-35-4	5.3%	38	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	74%	38	1.8	3.9	18	16	3.0	0.1	O(I)			0.03	N/A
m+p-Xylenes	106-42-3	100%	38	1.7	1.2	5.6	4.8	2.1	0.1	O(I)			0.021	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	50	1.2	0.64	3.6	2.7	1.4	0.03	O(I)	0.0000078	O(I)	0.046	1.1×10^{-5}
Bromomethane	74-83-9	4.0%	50	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	2.0%	50	N/A	N/A	0.82	0.82	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	4.0%	50	N/A	N/A	0.18	0.18	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	8.0%	50	0.032	0.055	0.24	0.24	0.048	10	O(I)			0.0000048	N/A
Chloroform	67-66-3	6.0%	50	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	90%	50	0.78	0.43	2.0	1.7	0.89	0.09	O(I)			0.0098	N/A
Cyclohexane	100-82-7	76%	50	0.41	0.24	1.0	0.93	0.48	6	I			0.00008	N/A
1,2-Dibromoethane	106-93-4	0%	50	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	50	N/A	N/A	0.48	0.48	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	4.0%	50	0.24	0.84	0.54	0.54	0.45	0.8	O(I)	0.000011	O(C)	0.00056	5.0×10^{-6}
o-Dichlorobenzene	95-50-1	0%	50	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	50	2.1	0.69	3.2	3.1	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	10%	50	N/A	N/A	1.3	1.3	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	2.0%	50	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	2.0%	50	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	42%	50	0.52	1.9	13	1.5	1.0	1	O(A)	4.7×10^{-7}	O(I)	0.001	4.7×10^{-7}
1,2-Dichloropropane	78-87-5	0%	50	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	50	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	2.0%	50	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.0%	50	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	50	0.69	1.0	6.6	2.6	0.95	1	O(I)	0.0000025	C	0.00095	2.4×10^{-6}
p-Ethyltoluene	622-96-8	88%	50	0.69	0.69	3.9	2.4	0.84					N/A	N/A
Heptane	142-82-5	100%	50	0.90	1.3	9.2	2.9	1.2	0.43	ACGIH			0.0029	N/A
Hexachlorobutadiene	87-68-3	0%	50	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	50	1.2	0.88	4.1	3.4	1.4	0.7	O(I)			0.0021	N/A
Propene	115-07-1	98%	50	2.6	2.1	12	6.9	3.1	3	C			0.001	N/A
Styrene	100-42-5	56%	50	0.51	0.72	5.1	1.2	0.68	1	O(I)			0.00068	N/A
1,1,2,2-Tetrachloroethane	79-34-5	10%	50	0.12	0.29	0.48	0.48	0.20			0.000058	O(I)	N/A	1.2×10^{-5}
Tetrachloroethene (PCE)	127-18-4	6.0%	50	0.20	0.31	1.6	0.41	0.27	0.27	O(A)	0.0000059	O(C)	0.001	1.6×10^{-6}
Toluene	108-88-3	100%	50	5.7	12	87	11	8.7	5	O(I)			0.0017	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	38%	50	0.26	0.27	0.77	0.65	0.32					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	2.0%	50	N/A	N/A	0.54	0.54	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	6.0%	50	0.071	0.15	0.98	0.98	0.11	1	O(C)			0.00011	N/A
1,1,2-Trichloroethane	79-00-5	6.0%	50	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	50	N/A	N/A	0.32	0.32	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	86%	50	1.0	0.29	1.8	1.6	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	56%	50	0.64	0.98	6.8	2.2	0.89	0.006	L(P)			0.15	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	50	1.7	2.1	11	7.9	2.2	0.007	L(R(p))			0.31	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	50	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	2.0%	50	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	68%	50	0.74	0.56	3.8	1.9	0.91	0.1	O(I)			0.0091	N/A
m+p-Xylenes	106-42-3	100%	50	2.0	2.7	18	6.1	2.7	0.1	O(I)			0.027	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	54	10	9.0	31	29	12	31	A			0.0004	N/A
Benzene	71-43-2	85%	54	0.83	1.0	7.8	1.7	1.1	0.03	O(I)	0.0000078	O(I)	0.035	8.2x10⁻⁶
Benzyl Chloride	100-44-7	1.9%	54	N/A	N/A	0.45	0.46	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	7.4%	54	N/A	N/A	0.33	0.31	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	54	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	13%	54	0.05	0.081	0.43	0.43	0.07	0.005	O(I)			0.014	N/A
1,3-Butadiene	106-99-0	20%	54	0.12	0.19	0.60	0.60	0.17	0.002	O(I)	0.00003	O(I)	0.083	5.0x10⁻⁶
Carbon Disulfide	75-15-0	9.3%	54	0.04	0.11	0.59	0.47	0.065	0.7	O(I)			0.000093	N/A
Carbon Tetrachloride	56-23-5	1.9%	54	N/A	N/A	0.063	0.063	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	54	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	7.4%	54	0.04	0.069	0.69	0.69	0.055	10	O(I)			0.0000055	N/A
Chloroform	67-66-3	15%	54	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	85%	54	1.6	2.7	14	9.3	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	41%	54	0.15	0.34	2.4	0.48	0.23	6	I			0.000039	N/A
Dibromochloromethane	124-48-1	0%	54	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	54	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.9%	54	N/A	N/A	0.82	0.84	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	1.9%	54	N/A	N/A	0.35	0.35	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	1.9%	54	N/A	N/A	0.06	0.06	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	94%	54	4.3	11	80	22	6.9	1.5	ACGIH			0.0046	N/A
1,1-Dichloroethane	75-34-3	7.4%	54	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.9%	54	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.9%	54	N/A	N/A	0.079	0.079	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	3.7%	54	N/A	N/A	0.079	0.079	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	26%	54	0.14	0.29	1.6	0.69	0.21	1	O(A)	4.7x10⁻⁷	O(I)	0.00021	9.8x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	54	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	54	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.7%	54	N/A	N/A	0.14	0.13	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	5.6%	54	N/A	N/A	2.5	2.4	N/A					N/A	N/A
1,4-Dioxane	123-91-1	1.9%	54	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	93%	54	35	35	150	99	43	100	L(IDEM)			0.00043	N/A
Ethyl Acetate	141-78-6	70%	54	0.27	0.40	2.3	1.4	0.36	0.37	ACGIH			0.00097	N/A
Ethylbenzene	100-41-4	56%	54	0.18	0.23	1.3	0.74	0.23	1	O(I)	0.0000025	C	0.00023	5.9x10⁻⁷
p-Ethyltoluene	622-96-8	20%	54	0.089	0.14	0.74	0.35	0.12					N/A	N/A
Heptane	142-82-5	80%	54	0.30	0.41	2.7	0.94	0.40	0.43	ACGIH			0.00092	N/A
Hexachlorobutadiene	87-68-3	0%	54	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	76%	54	0.74	1.1	7.8	2.2	0.99	0.7	O(I)			0.0014	N/A
Isopropanol	67-63-0	57%	54	1.0	0.91	3.9	3.2	1.2	7	C			0.00018	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	81%	54	1.7	1.7	6.7	5.6	2.1	5	I			0.00042	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	28%	54	0.25	0.53	2.9	2.0	0.38	3	O(I)			0.00013	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	26%	54	0.25	0.61	2.5	2.1	0.40	0.057	L(I)			0.007	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	19%	54	0.058	0.12	0.72	0.25	0.083	3	O(I)	2.6×10^{-7}	O(C)	0.000028	2.2×10^{-8}
Propene	115-07-1	96%	54	3.3	4.1	15	13	4.3	3	C			0.0014	N/A
Styrene	100-42-5	9.3%	54	0.072	0.12	0.55	0.29	0.10	1	O(I)			0.0001	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.9%	54	N/A	N/A	0.069	0.069	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	11%	54	N/A	N/A	0.99	1.0	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	50%	54	0.14	0.17	0.97	0.41	0.18	0.035	R			0.0051	N/A
Toluene	108-88-3	91%	54	1.4	1.4	7.2	4.9	1.7	5	O(I)			0.00035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	39%	54	0.57	0.092	0.84	0.84	0.59					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	54	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	11%	54	N/A	N/A	1.0	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	54	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	7.4%	54	0.081	0.24	1.2	1.2	0.14	0.6	O(C)	0.000002	O(C)	0.00023	2.8×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	94%	54	1.0	0.29	1.5	1.5	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	22%	54	0.084	0.11	0.34	0.33	0.11	0.006	L(P)			0.019	N/A
1,2,4-Trimethylbenzene	95-63-6	13%	54	0.15	0.27	1.3	0.64	0.21	0.007	L(R(p))			0.03	N/A
Vinyl Chloride	75-01-4	1.9%	54	N/A	N/A	0.18	0.18	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	54	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	13%	54	0.16	0.30	1.1	0.61	0.23	0.1	O(I)			0.0023	N/A
m+p-Xylenes	106-42-3	80%	54	0.52	0.61	3.5	2.1	0.65	0.1	O(I)			0.0065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	58	13	6.9	44	23	14	31	A			0.00046	N/A
Benzene	71-43-2	97%	58	0.77	0.35	1.9	1.6	0.86	0.03	O(I)	0.0000078	O(I)	0.029	6.7x10⁻⁶
Benzyl Chloride	100-44-7	0%	58	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	5.2%	58	N/A	N/A	0.13	0.13	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	58	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	43%	58	0.081	0.12	0.42	0.43	0.11	0.005	O(I)			0.022	N/A
1,3-Butadiene	106-99-0	31%	58	0.16	0.33	1.6	1.2	0.24	0.002	O(I)	0.00003	O(I)	0.12	7.3x10⁻⁶
Carbon Disulfide	75-15-0	78%	58	0.30	0.31	1.3	1.1	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	1.7%	58	N/A	N/A	0.19	0.19	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	1.7%	58	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	24%	58	0.11	0.11	0.80	0.79	0.13	10	O(I)			0.000013	N/A
Chloroform	67-66-3	47%	58	N/A	N/A	0.098	0.059	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	88%	58	0.99	0.70	5.4	2.1	1.2	0.09	O(I)			0.013	N/A
Cyclohexane	100-82-7	50%	58	0.13	0.20	1.4	0.24	0.18	6	I			0.000029	N/A
Dibromochloromethane	124-48-1	3.4%	58	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	58	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	12%	58	0.19	0.29	1.5	1.1	0.25					N/A	N/A
p-Dichlorobenzene	106-46-7	12%	58	0.21	0.33	1.6	1.3	0.29	0.8	O(I)	0.000011	O(C)	0.00036	3.2x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	58	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	76%	58	2.0	1.0	3.5	3.3	2.2	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	58	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	58	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	14%	58	N/A	N/A	0.20	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	16%	58	N/A	N/A	0.28	0.25	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	53%	58	0.33	0.66	3.0	2.9	0.49	1	O(A)	4.7x10⁻⁷	O(I)	0.00049	2.3x10⁻⁷
1,2-Dichloropropane	78-87-5	1.7%	58	N/A	N/A	0.18	0.18	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.7%	58	N/A	N/A	0.045	0.045	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.7%	58	N/A	N/A	0.091	0.091	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	43%	58	0.098	0.32	1.8	1.7	0.17					N/A	N/A
1,4-Dioxane	123-91-1	6.9%	58	N/A	N/A	0.36	0.36	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	58	66	38	180	140	71	100	L(IDEM)			0.00071	N/A
Ethyl Acetate	141-78-6	90%	58	0.40	0.47	2.2	1.6	0.50	0.37	ACGIH			0.0014	N/A
Ethylbenzene	100-41-4	78%	58	0.20	0.20	1.3	0.56	0.24	1	O(I)	0.0000025	C	0.00024	6.0x10⁻⁷
p-Ethyltoluene	622-96-8	34%	58	0.12	0.10	0.39	0.34	0.14					N/A	N/A
Heptane	142-82-5	76%	58	0.23	0.16	0.86	0.66	0.26	0.43	ACGIH			0.00061	N/A
Hexachlorobutadiene	87-68-3	0%	58	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	93%	58	0.49	0.39	2.0	1.6	0.56	0.7	O(I)			0.0008	N/A
Isopropanol	67-63-0	88%	58	0.91	0.71	3.9	2.1	1.1	7	C			0.00015	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	98%	58	2.0	1.0	5.7	3.8	2.2	5	I			0.00045	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	43%	58	0.18	0.30	170	170	0.25	3	O(I)			0.000085	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	41%	58	0.19	0.23	2.2	2.3	0.25	0.057	L(I)			0.0043	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	22%	58	0.065	0.097	0.28	0.28	0.09	3	O(I)	2.6×10^{-7}	O(C)	0.00003	2.3×10^{-8}
Propene	115-07-1	100%	58	2.6	4.8	21	19	3.6	3	C			0.0012	N/A
Styrene	100-42-5	21%	58	0.085	0.14	0.30	0.29	0.12	1	O(I)			0.00012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	58	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	33%	58	0.14	0.17	0.95	0.95	0.18	0.27	O(A)	0.0000059	O(C)	0.00065	1.0×10^{-6}
Tetrahydrofuran (THF)	109-99-9	88%	58	0.15	0.17	0.97	0.56	0.19	0.035	R			0.0053	N/A
Toluene	108-88-3	100%	58	1.5	1.0	5.6	3.8	1.7	5	O(I)			0.00035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	26%	58	0.58	0.28	2.5	0.64	0.64					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	58	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	55%	58	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	58	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	26%	58	0.12	0.17	0.89	0.91	0.16	0.6	O(C)	0.000002	O(C)	0.00027	3.2×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	58	1.1	0.22	2.0	1.3	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	24%	58	0.12	0.16	0.74	0.38	0.15	0.006	L(P)			0.025	N/A
1,2,4-Trimethylbenzene	95-63-6	10%	58	0.17	0.28	0.43	0.43	0.24	0.007	L(R(p))			0.034	N/A
Vinyl Chloride	75-01-4	3.4%	58	N/A	N/A	0.051	0.051	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	58	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	41%	58	0.14	0.19	0.61	0.56	0.18	0.1	O(I)			0.0018	N/A
m+p-Xylenes	106-42-3	93%	58	0.52	0.43	2.0	1.6	0.61	0.1	O(I)			0.0061	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	96%	55	9.3	5.7	24	22	11	31	A			0.00035	N/A
Benzene	71-43-2	91%	55	0.70	0.45	2.0	1.8	0.80	0.03	O(I)	0.0000078	O(I)	0.027	6.2×10^{-6}
Benzyl Chloride	100-44-7	9.1%	55	0.62	0.44	2.0	1.6	0.73	0.00066	ACGIH	0.000049	O(C)	1.1	3.6×10^{-5}
Bromodichloromethane	75-27-4	25%	55	0.074	0.048	0.71	0.74	0.08			0.000037	C	N/A	3.0×10^{-6}
Bromoform	75-25-2	0%	55	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	42%	55	0.43	0.54	1.2	1.0	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	25%	55	0.082	0.14	0.91	0.31	0.11	0.002	O(I)	0.00003	O(I)	0.057	3.4×10^{-6}
Carbon Disulfide	75-15-0	36%	55	0.062	0.062	0.28	0.28	0.078	0.7	O(I)			0.00011	N/A
Carbon Tetrachloride	56-23-5	5.5%	55	0.27	0.36	0.75	0.75	0.36	0.19	O(D-A)	0.000015	O(I)	0.0019	5.4×10^{-6}
Chlorobenzene	108-90-7	7.3%	55	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	3.6%	55	0.079	0.40	0.45	0.45	0.17	10	O(I)			0.000017	N/A
Chloroform	67-66-3	5.5%	55	0.063	0.14	0.50	0.49	0.098	0.098	O(A)	0.000023	I	0.001	2.2×10^{-6}
Chloromethane	74-87-3	78%	55	0.43	0.29	1.8	0.87	0.49	0.09	O(I)			0.0055	N/A
Cyclohexane	100-82-7	29%	55	0.32	0.93	6.7	0.58	0.55	6	I			0.000092	N/A
Dibromochloromethane	124-48-1	9.1%	55	0.24	0.63	0.97	0.94	0.38			0.000027	C	N/A	1.0×10^{-5}
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	11%	55	0.25	0.72	0.63	0.60	0.42					N/A	N/A
p-Dichlorobenzene	106-46-7	13%	55	0.22	0.55	1.0	1.0	0.34	0.8	O(I)	0.000011	O(C)	0.00043	3.8×10^{-6}
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.81	0.84	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	78%	55	1.4	0.69	3.3	2.4	1.5	1.5	ACGIH			0.001	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	20%	55	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N
t-1,2-Dichloroethene	156-60-5	31%	55	0.099	0.13	0.40	0.40	0.13	0.06	R			0.0021	N/A
c-1,2-Dichloroethene	156-59-2	42%	55	0.11	0.17	0.41	0.40	0.15	0.03	R			0.0051	N/A
Dichloromethane	75-09-2	22%	55	0.16	0.38	2.6	0.49	0.25	1	O(A)	4.7×10^{-7}	O(I)	0.00025	1.2×10^{-7}
1,2-Dichloropropane	78-87-5	3.6%	55	0.16	0.83	0.46	0.46	0.36	0.004	O(I)	0.000019	O(R)	0.09	6.8×10^{-6}
c-1,3-Dichloropropene	10061-01-3	1.8%	55	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.6%	55	N/A	N/A	0.47	0.45	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	36%	55	0.45	0.70	3.5	1.8	0.62					N/A	N/A
1,4-Dioxane	123-91-1	15%	55	0.068	0.18	0.60	0.61	0.11	3.6	O(D-A)	0.0000077	O(C)	0.000031	8.6×10^{-7}
Ethanol	64-17-5	91%	55	20	18	72	66	24	100	L(IDEM)			0.00024	N/A
Ethyl Acetate	141-78-6	67%	55	0.47	1.4	10	1.8	0.79	0.37	ACGIH			0.0021	N/A
Ethylbenzene	100-41-4	49%	55	0.41	0.95	6.7	1.6	0.65	1	O(I)	0.0000025	C	0.00065	1.6×10^{-6}
p-Ethyltoluene	622-96-8	31%	55	0.21	0.25	0.69	0.59	0.27					N/A	N/A
Heptane	142-82-5	69%	55	0.38	0.70	5.2	0.78	0.53	0.43	ACGIH			0.0012	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	87%	55	0.81	1.8	13	2.9	1.2	0.7	O(I)			0.0018	N/A
Isopropanol	67-63-0	58%	55	0.54	0.69	2.9	2.5	0.71	7	C			0.0001	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	55	2.0	1.6	7.9	5.9	2.4	5	I			0.00047	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	15%	55	0.13	0.45	0.37	0.37	0.23	3	O(I)			0.000077	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	29%	55	0.70	2.5	13	7.8	1.3	0.057	L(I)			0.022	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	16%	55	0.047	0.13	0.72	0.40	0.079	3	O(I)	2.6×10^{-7}	O(C)	0.000026	2.1×10^{-8}
Propene	115-07-1	95%	55	1.3	1.5	9.5	3.4	1.7	3	C			0.00055	N/A
Styrene	100-42-5	16%	55	0.20	0.47	0.66	0.68	0.30	1	O(I)			0.0003	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.8%	55	N/A	N/A	0.70	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	15%	55	0.075	0.081	0.79	0.81	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	76%	55	0.21	0.44	3.1	0.91	0.32	0.035	R			0.0093	N/A
Toluene	108-88-3	98%	55	1.2	1.3	7.2	3.8	1.5	5	O(I)			0.00031	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	16%	55	0.57	0.21	0.84	0.84	0.62					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	15%	55	0.082	0.098	0.54	0.54	0.10	1	O(C)			0.0001	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	55	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	20%	55	N/A	N/A	0.55	0.54	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	85%	55	0.84	0.25	1.6	1.2	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	27%	55	0.19	0.37	0.69	0.64	0.28	0.006	L(P)			0.047	N/A
1,2,4-Trimethylbenzene	95-63-6	22%	55	0.14	0.24	0.54	0.45	0.20	0.007	L(R(p))			0.028	N/A
Vinyl Chloride	75-01-4	5.5%	55	N/A	N/A	0.061	0.061	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.8%	55	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	31%	55	0.39	0.91	4.8	2.4	0.61	0.1	O(I)			0.0061	N/A
m+p-Xylenes	106-42-3	69%	55	1.4	4.0	27	6.5	2.4	0.1	O(I)			0.024	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	95%	57	7.9	8.3	31	29	9.8	31	A			0.00031	N/A
Benzene	71-43-2	84%	57	0.80	0.86	5.8	2.3	0.99	0.03	O(I)	0.0000078	O(I)	0.033	7.7×10^{-6}
Benzyl Chloride	100-44-7	49%	57	1.2	1.1	3.7	3.6	1.5	0.00066	ACGIH	0.000049	O(C)	2.3	7.4×10^{-5}
Bromodichloromethane	75-27-4	11%	57	0.10	0.19	0.36	0.36	0.15			0.000037	C	N/A	5.5×10^{-6}
Bromoform	75-25-2	0%	57	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	47%	57	0.43	0.50	2.1	1.7	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	26%	57	0.095	0.12	0.62	0.24	0.12	0.002	O(I)	0.00003	O(I)	0.062	3.7×10^{-6}
Carbon Disulfide	75-15-0	14%	57	0.062	0.14	0.16	0.16	0.096	0.7	O(I)			0.00014	N/A
Carbon Tetrachloride	56-23-5	18%	57	0.13	0.25	1.6	0.52	0.19	0.19	O(D-A)	0.000015	O(I)	0.00099	2.8×10^{-6}
Chlorobenzene	108-90-7	0%	57	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	7.0%	57	0.14	0.79	5.2	0.45	0.32	10	O(I)			0.000032	N/A
Chloroform	67-66-3	23%	57	0.054	0.028	0.20	0.13	0.059	0.098	O(A)	0.000023	I	0.0006	1.3×10^{-6}
Chloromethane	74-87-3	77%	57	0.66	0.64	3.0	2.0	0.82	0.09	O(I)			0.0092	N/A
Cyclohexane	100-82-7	70%	57	0.69	1.1	3.5	3.4	0.93	6	I			0.00015	N/A
Dibromochloromethane	124-48-1	1.8%	57	N/A	N/A	0.51	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	11%	57	0.078	0.12	0.29	0.29	0.11					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	57	0.084	0.17	0.36	0.35	0.13	0.8	O(I)	0.000011	O(C)	0.00016	1.4×10^{-6}
o-Dichlorobenzene	95-50-1	0%	57	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	91%	57	1.8	1.2	5.9	3.8	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	1.8%	57	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	14%	57	0.045	0.049	0.27	0.27	0.057	2.4	O(A)	0.000026	O(I)	0.000024	1.5×10^{-6}
t-1,2-Dichloroethene	156-60-5	8.8%	57	0.12	0.014	0.16	0.16	0.13	0.06	R			0.0021	N/A
c-1,2-Dichloroethene	156-59-2	11%	57	0.067	0.20	0.36	0.19	0.11	0.03	R			0.0038	N/A
Dichloromethane	75-09-2	40%	57	0.24	0.31	1.1	1.1	0.31	1	O(A)	4.7×10^{-7}	O(I)	0.00031	1.5×10^{-7}
1,2-Dichloropropane	78-87-5	3.5%	57	0.69	6.0	33	0.25	2.1	0.004	O(I)	0.000019	O(R)	0.53	4.0×10^{-5}
c-1,3-Dichloropropene	10061-01-3	5.3%	57	0.10	0.13	0.19	0.19	0.14					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	12%	57	0.086	0.20	0.27	0.24	0.14	0.02	L(IDEM)	0.000004		0.0068	5.4×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	32%	57	0.51	0.77	3.4	2.1	0.70					N/A	N/A
1,4-Dioxane	123-91-1	25%	57	0.086	0.17	0.85	0.86	0.13	3.6	O(D-A)	0.0000077	O(C)	0.000035	9.7×10^{-7}
Ethanol	64-17-5	67%	57	10	15	55	49	14	100	L(IDEM)			0.00014	N/A
Ethyl Acetate	141-78-6	82%	57	0.94	2.1	14	5.8	1.4	0.37	ACGIH			0.0039	N/A
Ethylbenzene	100-41-4	70%	57	0.24	0.18	1.0	0.65	0.28	1	O(I)	0.0000025	C	0.00028	7.1×10^{-7}
p-Ethyltoluene	622-96-8	44%	57	0.22	0.27	1.2	1.0	0.28					N/A	N/A
Heptane	142-82-5	74%	57	0.32	0.45	3.2	1.1	0.41	0.43	ACGIH			0.00095	N/A
Hexachlorobutadiene	87-68-3	8.8%	57	0.13	0.18	1.1	1.1	0.16	0.09	O(P-C)	0.000022	O(I)	0.0018	3.5×10^{-6}
Hexane	110-54-3	82%	57	0.63	0.63	3.4	2.3	0.77	0.7	O(I)			0.0011	N/A
Isopropanol	67-63-0	89%	57	1.9	2.0	12	5.7	2.3	7	C			0.00033	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	57	2.8	2.9	15	10	3.5	5	I			0.00071	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	37%	57	0.34	0.57	3.6	1.1	0.45	3	O(I)			0.00015	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	46%	57	1.2	4.5	30	7.8	2.3	0.057	L(I)			0.04	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	14%	57	0.079	0.26	0.29	0.30	0.14	3	O(I)	2.6×10^{-7}	O(C)	0.000047	3.7×10^{-8}
Propene	115-07-1	96%	57	1.9	2.2	16	4.5	2.4	3	C			0.0008	N/A
Styrene	100-42-5	19%	57	0.11	0.21	1.0	0.64	0.16	1	O(I)			0.00016	N/A
1,1,2,2-Tetrachloroethane	79-34-5	12%	57	2.7	7.5	7.4	7.5	4.5			0.000058	O(I)	N/A	2.6×10^{-4}
Tetrachloroethene (PCE)	127-18-4	30%	57	0.14	0.16	0.61	0.43	0.17	0.27	O(A)	0.0000059	O(C)	0.00063	1.0×10^{-6}
Tetrahydrofuran (THF)	109-99-9	56%	57	0.23	0.25	1.4	0.59	0.29	0.035	R			0.0083	N/A
Toluene	108-88-3	86%	57	1.4	2.8	21	4.5	2.1	5	O(I)			0.00041	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	60%	57	0.38	0.27	0.77	0.69	0.45					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	8.8%	57	0.52	0.28	1.1	0.69	0.59	0.2	O(H)			0.0029	N/A
1,1,1-Trichloroethane	71-55-6	21%	57	0.082	0.082	0.24	0.24	0.10	1	O(C)			0.0001	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	57	N/A	N/A	0.41	0.41	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	8.8%	57	0.064	0.10	0.30	0.31	0.086	0.6	O(C)	0.000002	O(C)	0.00014	1.7×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	79%	57	0.96	0.56	3.4	1.7	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	18%	57	0.12	0.20	1.2	0.54	0.17	0.006	L(P)			0.029	N/A
1,2,4-Trimethylbenzene	95-63-6	37%	57	0.32	0.45	2.1	1.3	0.43	0.007	L(R(p))			0.061	N/A
Vinyl Chloride	75-01-4	12%	57	0.028	0.036	0.22	0.22	0.038	0.1	O(I)	0.0000088	O(I)	0.00038	3.4×10^{-7}
Vinylidene Chloride	75-35-4	19%	57	0.40	0.75	3.6	3.0	0.59	0.2	O(I)			0.003	N/A
o-Xylene	95-47-6	23%	57	0.16	0.21	0.91	0.87	0.21	0.1	O(I)			0.0021	N/A
m+p-Xylenes	106-42-3	88%	57	0.56	0.56	3.0	2.1	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	56	12	9.5	56	33	14	31	A			0.00046	N/A
Acrolein	107-02-8	92%	24	2.7	2.5	8.8	8.7	3.7	0.00002	O(I)			180	N/A
Benzene	71-43-2	98%	56	1.1	0.70	3.5	2.9	1.3	0.03	O(I)	0.0000078	O(I)	0.044	1.0×10^{-5}
Benzyl Chloride	100-44-7	0%	56	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	56	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	56	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	30%	56	0.58	0.36	2.0	1.6	0.66	0.005	O(I)			0.13	N/A
1,3-Butadiene	106-99-0	16%	56	0.091	0.18	0.82	0.18	0.13	0.002	O(I)	0.00003	O(I)	0.067	4.0×10^{-6}
Carbon Disulfide	75-15-0	16%	56	0.13	0.19	0.81	0.59	0.17	0.7	O(I)			0.00025	N/A
Carbon Tetrachloride	56-23-5	14%	56	0.19	0.26	0.44	0.38	0.25	0.19	O(D-A)	0.000015	O(I)	0.0013	3.8×10^{-6}
Chlorobenzene	108-90-7	3.6%	56	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	18%	56	0.034	0.034	0.11	0.10	0.042	10	O(I)			0.0000042	N/A
Chloroform	67-66-3	13%	56	0.068	0.12	0.30	0.30	0.098	0.098	O(A)	0.000023	I	0.001	2.2×10^{-6}
Chloromethane	74-87-3	100%	56	1.1	0.35	2.0	1.7	1.2	0.09	O(I)			0.013	N/A
Cyclohexane	100-82-7	52%	56	0.18	0.19	0.83	0.52	0.22	6	I			0.000037	N/A
Dibromochloromethane	124-48-1	0%	56	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	56	N/A	N/A	0.26	0.26	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	8.9%	56	0.096	0.16	0.60	0.32	0.13	0.8	O(I)	0.000011	O(C)	0.00017	1.5×10^{-6}
o-Dichlorobenzene	95-50-1	0%	56	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	56	2.3	0.84	4.3	3.6	2.5	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	56	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	8.9%	56	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.8%	56	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	56	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	25%	56	0.19	0.33	1.6	0.97	0.26	1	O(A)	4.7×10^{-7}	O(I)	0.00026	1.2×10^{-7}
1,2-Dichloropropane	78-87-5	1.8%	56	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	56	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	56	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	56	N/A	N/A	2.1	2.1	N/A					N/A	N/A
1,4-Dioxane	123-91-1	16%	56	0.079	0.14	0.43	0.40	0.11	3.6	O(D-A)	0.0000077	O(C)	0.000031	8.6×10^{-7}
Ethanol	64-17-5	95%	56	23	23	100	88	29	100	L(IDEM)			0.00029	N/A
Ethyl Acetate	141-78-6	80%	56	0.76	1.9	14	2.4	1.2	0.37	ACGIH			0.0032	N/A
Ethylbenzene	100-41-4	75%	56	0.26	0.23	1.1	0.78	0.32	1	O(I)	0.0000025	C	0.00032	7.9×10^{-7}
p-Ethyltoluene	622-96-8	36%	56	0.18	0.27	1.7	0.54	0.24					N/A	N/A
Heptane	142-82-5	95%	56	0.53	0.45	2.3	1.5	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	5.4%	56	0.14	0.31	0.38	0.39	0.21	0.09	O(P-C)	0.000022	O(I)	0.0024	4.7×10^{-6}
Hexane	110-54-3	91%	56	0.81	0.63	3.1	2.4	0.95	0.7	O(I)			0.0014	N/A
Isopropanol	67-63-0	95%	56	1.1	1.1	7.3	2.7	1.3	7	C			0.00019	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	100%	56	2.7	3.2	24	5.6	3.2	5	I			0.00065	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	13%	56	0.16	0.45	2.5	0.40	0.27	3	O(I)			0.000089	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	8.9%	56	0.086	0.16	0.74	0.39	0.12	0.057	L(I)			0.0022	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	56	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	56	2.1	1.1	4.1	3.8	2.4	3	C			0.0008	N/A
Styrene	100-42-5	21%	56	0.23	0.64	1.4	0.55	0.38	1	O(I)			0.00038	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	56	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	8.9%	56	0.14	0.35	0.33	0.33	0.22	0.27	O(A)	0.0000059	O(C)	0.0008	1.3×10^{-6}
Tetrahydrofuran (THF)	109-99-9	21%	56	0.047	0.065	0.24	0.16	0.062	0.035	R			0.0018	N/A
Toluene	108-88-3	100%	56	1.6	1.5	9.2	4.5	1.9	5	O(I)			0.00038	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	63%	56	0.40	0.29	0.77	0.77	0.47					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	56	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	14%	56	0.06	0.066	0.22	0.22	0.076	1	O(C)			0.000076	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	56	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.4%	56	N/A	N/A	0.13	0.13	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	91%	56	1.1	0.42	1.7	1.6	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	5.4%	56	0.10	0.31	0.34	0.34	0.18	0.006	L(P)			0.03	N/A
1,2,4-Trimethylbenzene	95-63-6	43%	56	0.37	0.42	1.3	0.98	0.47	0.007	L(R(p))			0.067	N/A
Vinyl Acetate	108-05-4	100%	20	4.6	8.1	39	23	8.1	0.2	O(I)			0.04	N/A
Vinyl Chloride	75-01-4	3.6%	56	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	56	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	21%	56	0.33	0.17	1.0	0.78	0.37	0.1	O(I)			0.0037	N/A
m+p-Xylenes	106-42-3	80%	56	0.65	0.65	3.2	2.3	0.78	0.1	O(I)			0.0078	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	89%	55	6.7	6.4	28	22	8.3	31	A			0.00027	N/A
Acrolein	107-02-8	68%	44	1.5	1.4	6.5	5.0	1.9	0.00002	O(I)			94	N/A
Benzene	71-43-2	93%	55	0.83	0.64	4.6	1.6	0.99	0.03	O(I)	0.0000078	O(I)	0.033	7.7×10^{-6}
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	55	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	3.6%	55	N/A	N/A	0.61	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	3.6%	55	0.20	0.0082	0.24	0.19	0.20	0.002	O(I)	0.00003	O(I)	0.10	6.0×10^{-6}
Carbon Disulfide	75-15-0	33%	55	0.18	0.056	0.37	0.31	0.19	0.7	O(I)			0.00028	N/A
Carbon Tetrachloride	56-23-5	62%	55	0.25	0.18	0.57	0.50	0.29	0.19	O(D-A)	0.000015	O(I)	0.0015	4.3×10^{-6}
Chlorobenzene	108-90-7	0%	55	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	55	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	11%	55	0.10	0.021	0.20	0.15	0.11	0.098	O(A)	0.000023	I	0.0011	2.5×10^{-6}
Chloromethane	74-87-3	85%	55	0.80	0.37	1.6	1.4	0.89	0.09	O(I)			0.0098	N/A
Cyclohexane	100-82-7	62%	55	0.72	4.1	30	0.34	1.7	6	I			0.00029	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.8%	55	N/A	N/A	0.36	0.09	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	47%	55	0.34	0.45	3.0	1.1	0.45	0.8	O(I)	0.000011	O(C)	0.00056	5.0×10^{-6}
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	85%	55	2.0	0.69	3.8	3.1	2.2	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	5.5%	55	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	55	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	45%	55	0.20	0.38	2.0	1.1	0.30	1	O(A)	4.7×10^{-7}	O(I)	0.0003	1.4×10^{-7}
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.8%	55	N/A	N/A	1.1	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	55	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	55	N/A	N/A	0.23	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	20%	55	0.21	0.21	1.4	0.65	0.26	3.6	O(D-A)	0.0000077	O(C)	0.000072	2.0×10^{-6}
Ethanol	64-17-5	55%	55	19	19	80	55	24	100	L(IDEM)			0.00024	N/A
Ethyl Acetate	141-78-6	67%	55	0.50	0.76	4.0	2.6	0.68	0.37	ACGIH			0.0018	N/A
Ethylbenzene	100-41-4	65%	55	0.20	0.10	0.61	0.48	0.22	1	O(I)	0.0000025	C	0.00022	5.5×10^{-7}
p-Ethyltoluene	622-96-8	18%	55	0.089	0.11	0.44	0.34	0.12					N/A	N/A
Heptane	142-82-5	84%	55	0.38	0.18	0.90	0.78	0.41	0.43	ACGIH			0.00095	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	85%	55	0.56	0.31	1.6	1.1	0.63	0.7	O(I)			0.00091	N/A
Isopropanol	67-63-0	55%	55	0.79	0.84	4.9	2.7	0.98	7	C			0.00014	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	93%	55	1.7	1.2	5.8	4.1	2.0	5	I			0.0004	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	67%	55	0.32	0.26	0.86	0.78	0.38	3	O(I)			0.00013	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	80%	55	0.53	0.53	3.1	1.5	0.66	0.057	L(I)			0.012	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	55	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	85%	55	0.84	0.64	3.1	2.2	1.0	3	C			0.00033	N/A
Styrene	100-42-5	9.1%	55	0.27	0.081	0.72	0.43	0.29	1	O(I)			0.00029	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	16%	55	0.095	0.081	0.34	0.34	0.12	0.27	O(A)	0.0000059	O(C)	0.00043	6.8×10^{-7}
Tetrahydrofuran (THF)	109-99-9	27%	55	0.10	0.17	0.86	0.56	0.14	0.035	R			0.004	N/A
Toluene	108-88-3	93%	55	1.0	0.72	3.4	2.7	1.2	5	O(I)			0.00024	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	82%	55	0.51	0.11	0.84	0.64	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	3.6%	55	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	15%	55	0.07	0.05	0.21	0.18	0.081	0.6	O(C)	0.000002	O(C)	0.00013	1.6×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	91%	55	0.90	0.34	1.6	1.3	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	3.6%	55	0.054	0.046	0.30	0.18	0.064	0.006	L(P)			0.011	N/A
1,2,4-Trimethylbenzene	95-63-6	76%	55	0.25	0.16	0.93	0.49	0.29	0.007	L(R(p))			0.041	N/A
Vinyl Acetate	108-05-4	93%	55	4.2	4.6	27	13	5.3	0.2	O(I)			0.026	N/A
Vinyl Chloride	75-01-4	0%	55	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.8%	55	N/A	N/A	0.63	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	71%	55	0.20	0.11	0.69	0.39	0.22	0.1	O(I)			0.0022	N/A
m+p-Xylenes	106-42-3	84%	55	0.52	0.35	2.2	1.4	0.61	0.1	O(I)			0.0061	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	94%	52	4.8	4.8	21	18	6.0	31	A			0.00019	N/A
Acrolein	107-02-8	94%	52	1.7	1.4	7.1	4.6	2.0	0.00002	O(I)			100	N/A
Benzene	71-43-2	100%	52	0.70	0.35	1.9	1.7	0.77	0.03	O(I)	0.0000078	O(I)	0.026	6.0x10⁻⁶
Benzyl Chloride	100-44-7	0%	52	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	52	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	35%	52	0.29	0.14	1.0	0.58	0.32	0.005	O(I)			0.064	N/A
1,3-Butadiene	106-99-0	54%	52	0.093	0.086	0.31	0.27	0.11	0.002	O(I)	0.00003	O(I)	0.057	3.4x10⁻⁶
Carbon Disulfide	75-15-0	17%	52	0.20	0.044	0.37	0.31	0.21	0.7	O(I)			0.0003	N/A
Carbon Tetrachloride	56-23-5	3.8%	52	0.31	0.024	0.44	0.28	0.32	0.19	O(D-A)	0.000015	O(I)	0.0017	4.8x10⁻⁶
Chlorobenzene	108-90-7	0%	52	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.9%	52	N/A	N/A	0.24	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	7.7%	52	0.15	0.018	0.24	0.17	0.15	0.098	O(A)	0.000023	I	0.0015	3.5x10⁻⁶
Chloromethane	74-87-3	96%	52	0.84	0.13	1.1	1.1	0.87	0.09	O(I)			0.0096	N/A
Cyclohexane	100-82-7	60%	52	0.17	0.11	0.55	0.45	0.19	6	I			0.000032	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	52	N/A	N/A	0.13	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	27%	52	0.29	0.16	0.96	0.72	0.33	0.8	O(I)	0.000011	O(C)	0.00041	3.6x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A	0.24	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	52	2.5	0.41	3.4	3.1	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	52	N/A	N/A	0.062	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	52	N/A	N/A	0.061	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.9%	52	N/A	N/A	0.28	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	73%	52	0.31	0.38	2.2	1.3	0.42	1	O(A)	4.7x10⁻⁷	O(I)	0.00042	2.0x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	52	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.8%	52	N/A	N/A	0.21	0.16	N/A					N/A	N/A
1,4-Dioxane	123-91-1	9.6%	52	0.15	0.021	0.25	0.18	0.15	3.6	O(D-A)	0.0000077	O(C)	0.000043	1.2x10⁻⁶
Ethanol	64-17-5	98%	52	31	32	130	120	39	100	L(IDEM)			0.00039	N/A
Ethyl Acetate	141-78-6	42%	52	0.26	0.40	2.3	1.2	0.36	0.37	ACGIH			0.00097	N/A
Ethylbenzene	100-41-4	29%	52	0.26	0.12	0.69	0.61	0.29	1	O(I)	0.0000025	C	0.00029	7.2x10⁻⁷
p-Ethyltoluene	622-96-8	9.6%	52	0.084	0.14	0.30	0.20	0.12					N/A	N/A
Heptane	142-82-5	90%	52	0.35	0.29	1.6	1.1	0.41	0.43	ACGIH			0.00095	N/A
Hexachlorobutadiene	87-68-3	3.8%	52	0.12	0.062	0.43	0.33	0.13	0.09	O(P-C)	0.000022	O(I)	0.0014	2.8x10⁻⁶
Hexane	110-54-3	94%	52	0.67	0.63	3.2	2.3	0.81	0.7	O(I)			0.0012	N/A
Isopropanol	67-63-0	92%	52	0.59	0.42	1.7	1.5	0.69	7	C			0.000098	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	96%	52	2.2	2.8	19	5.9	2.9	5	I			0.00058	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	46%	52	0.18	0.11	0.49	0.45	0.21	3	O(I)			0.000071	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	73%	52	0.26	0.18	1.0	0.66	0.30	0.057	L(I)			0.0053	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	1.9%	52	N/A	N/A	0.22	0.11	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	94%	52	1.3	1.1	5.6	3.8	1.6	3	C			0.00053	N/A
Styrene	100-42-5	13%	52	0.17	0.13	0.68	0.55	0.20	1	O(I)			0.0002	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	5.8%	52	0.081	0.075	0.47	0.25	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	23%	52	0.29	0.13	0.80	0.62	0.32	0.035	R			0.0093	N/A
Toluene	108-88-3	100%	52	1.2	1.2	5.6	4.5	1.5	5	O(I)			0.0003	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	100%	52	0.50	0.11	0.69	0.69	0.52					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.9%	52	N/A	N/A	0.37	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	52	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	1.9%	52	N/A	N/A	0.97	0.19	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	100%	52	1.2	0.19	1.5	1.5	1.3	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	0%	52	N/A	N/A	0.21	0.21	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	40%	52	0.24	0.18	0.89	0.69	0.28	0.007	L(R(p))			0.04	N/A
Vinyl Acetate	108-05-4	58%	52	2.8	5.3	25	18	4.2	0.2	O(I)			0.021	N/A
Vinyl Chloride	75-01-4	0%	52	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	52	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	46%	52	0.20	0.15	0.74	0.61	0.24	0.1	O(I)			0.0024	N/A
m+p-Xylenes	106-42-3	60%	52	0.56	0.48	2.6	1.8	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	28	13	2.9	20	19	14	31	A			0.00045	N/A
Benzene	71-43-2	100%	28	0.80	0.38	1.7	1.6	0.93	0.03	O(I)	0.0000078	O(I)	0.031	7.2x10⁻⁶
Benzyl Chloride	100-44-7	0%	28	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	28	N/A	N/A		N/A	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	28	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	61%	28	0.17	0.20	0.85	0.54	0.23	0.005	O(I)			0.047	N/A
1,3-Butadiene	106-99-0	57%	28	0.22	0.33	0.97	0.77	0.33	0.002	O(I)	0.00003	O(I)	0.17	9.9x10⁻⁶
Carbon Disulfide	75-15-0	89%	28	0.81	0.50	1.6	1.5	0.96	0.7	O(I)			0.0014	N/A
Carbon Tetrachloride	56-23-5	3.6%	28	N/A	N/A	0.13	0.13	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	3.6%	28	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	61%	28	0.19	0.13	0.80	0.79	0.24	10	O(I)			0.000024	N/A
Chloroform	67-66-3	43%	28	N/A	N/A	0.098	0.098	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	86%	28	1.3	1.6	8.8	4.3	1.8	0.09	O(I)			0.02	N/A
Cyclohexane	100-82-7	64%	28	0.065	0.069	0.24	0.24	0.089	6	I			0.000015	N/A
Dibromochloromethane	124-48-1	3.6%	28	N/A	N/A	0.43	0.43	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	28	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	32%	28	0.20	0.16	0.66	0.41	0.25					N/A	N/A
p-Dichlorobenzene	106-46-7	32%	28	0.20	0.19	0.72	0.47	0.27	0.8	O(I)	0.000011	O(C)	0.00034	3.0x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	28	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	61%	28	1.6	1.2	3.1	3.0	2.0	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	28	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	28	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	28	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	7.1%	28	N/A	N/A	0.04	0.04	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	86%	28	0.13	0.062	0.37	0.38	0.15	1	O(A)	4.7x10⁻⁷	O(I)	0.00015	7.0x10⁻⁸
1,2-Dichloropropane	78-87-5	3.6%	28	N/A	N/A	0.046	0.046	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	28	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.6%	28	N/A	N/A	0.091	0.091	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	61%	28	0.098	0.10	1.8	1.7	0.13					N/A	N/A
1,4-Dioxane	123-91-1	0%	28	N/A	N/A		N/A	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	28	120	77	260	250	140	100	L(IDEM)			0.0014	N/A
Ethyl Acetate	141-78-6	86%	28	0.17	0.083	0.43	0.32	0.19	0.37	ACGIH			0.00053	N/A
Ethylbenzene	100-41-4	89%	28	0.20	0.12	0.65	0.43	0.24	1	O(I)	0.0000025	C	0.00024	6.0x10⁻⁷
p-Ethyltoluene	622-96-8	64%	28	0.14	0.17	0.64	0.64	0.20					N/A	N/A
Heptane	142-82-5	50%	28	0.12	0.11	0.49	0.29	0.16	0.43	ACGIH			0.00037	N/A
Hexachlorobutadiene	87-68-3	0%	28	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	86%	28	0.26	0.14	0.67	0.49	0.31	0.7	O(I)			0.00044	N/A
Isopropanol	67-63-0	100%	28	5.2	9.1	46	22	8.1	7	C			0.0012	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	28	1.9	0.77	3.9	3.5	2.1	5	I			0.00042	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	64%	28	0.30	0.35	170	170	0.41	3	O(I)			0.00014	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	64%	28	0.30	0.26	2.2	2.3	0.39	0.057	L(I)			0.0068	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	28	N/A	N/A	0.28	0.28	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	96%	28	1.5	2.4	11	7.2	2.2	3	C			0.00075	N/A
Styrene	100-42-5	46%	28	0.12	0.15	0.47	0.40	0.17	1	O(I)			0.00017	N/A
1,1,2,2-Tetrachloroethane	79-34-5	3.6%	28	N/A	N/A	0.069	0.069	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	25%	28	0.095	0.095	0.92	0.95	0.13	0.27	O(A)	0.0000059	O(C)	0.00048	7.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	89%	28	0.086	0.062	0.26	0.26	0.11	0.035	R			0.003	N/A
Toluene	108-88-3	100%	28	1.4	0.75	4.4	2.8	1.6	5	O(I)			0.00032	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	43%	28	0.50	0.075	0.77	0.64	0.52					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	28	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	61%	28	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	28	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	43%	28	0.097	0.16	0.89	0.91	0.15	0.6	O(C)	0.000002	O(C)	0.00025	3.0×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	28	1.2	0.20	1.6	1.5	1.3	0.7	L(R(h))			0.0019	N/A
1,3,5-Trimethylbenzene	108-67-8	54%	28	0.11	0.14	0.64	0.43	0.16	0.006	L(P)			0.027	N/A
1,2,4-Trimethylbenzene	95-63-6	32%	28	0.16	0.26	1.3	0.59	0.25	0.007	L(R(p))			0.036	N/A
Vinyl Chloride	75-01-4	0%	28	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	11%	28	N/A	N/A	0.12	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	54%	28	0.20	0.21	0.91	0.65	0.26	0.1	O(I)			0.0026	N/A
m+p-Xylenes	106-42-3	96%	28	0.65	0.48	2.6	1.6	0.82	0.1	O(I)			0.0082	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	57	8.8	7.9	37	29	11	31	A			0.00035	N/A
Benzene	71-43-2	86%	57	0.57	0.30	1.4	1.3	0.64	0.03	O(I)	0.0000078	O(I)	0.021	5.0×10^{-6}
Benzyl Chloride	100-44-7	14%	57	0.57	0.37	1.7	1.5	0.67	0.00066	ACGIH	0.000049	O(C)	1.0	3.3×10^{-5}
Bromodichloromethane	75-27-4	11%	57	N/A	N/A	0.71	0.74	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	57	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	33%	57	0.38	0.39	1.1	0.81	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	33%	57	0.055	0.073	0.46	0.11	0.073	0.002	O(I)	0.00003	O(I)	0.036	2.2×10^{-6}
Carbon Disulfide	75-15-0	39%	57	0.044	0.034	0.28	0.28	0.05	0.7	O(I)			0.000071	N/A
Carbon Tetrachloride	56-23-5	0%	57	N/A	N/A	0.75	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	3.5%	57	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	14%	57	0.058	0.055	0.45	0.45	0.071	10	O(I)			0.0000071	N/A
Chloroform	67-66-3	1.8%	57	N/A	N/A	0.50	0.49	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	77%	57	0.43	0.37	2.3	0.95	0.54	0.09	O(I)			0.006	N/A
Cyclohexane	100-82-7	37%	57	0.15	0.34	2.2	0.45	0.23	6	I			0.000039	N/A
Dibromochloromethane	124-48-1	3.5%	57	0.13	0.32	0.97	0.94	0.20			0.000027	C	N/A	5.5×10^{-6}
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	11%	57	0.23	0.66	1.6	0.96	0.38					N/A	N/A
p-Dichlorobenzene	106-46-7	8.8%	57	0.44	0.84	1.4	1.0	0.66	0.8	O(I)	0.000011	O(C)	0.00083	7.3×10^{-6}
o-Dichlorobenzene	95-50-1	3.5%	57	0.10	0.42	2.3	0.84	0.20	0.6	R			0.00033	N/A
Dichlorodifluoromethane (F-12)	75-71-8	75%	57	1.4	0.84	5.0	2.8	1.6	1.5	ACGIH			0.0011	N/A
1,1-Dichloroethane	75-34-3	3.5%	57	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	18%	57	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	23%	57	0.048	0.048	0.40	0.40	0.06	0.06	R			0.00099	N/A
c-1,2-Dichloroethene	156-59-2	7.0%	57	N/A	N/A	0.41	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	26%	57	0.11	0.094	0.38	0.32	0.13	1	O(A)	4.7×10^{-7}	O(I)	0.00013	6.2×10^{-8}
1,2-Dichloropropane	78-87-5	0%	57	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	3.5%	57	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	7.0%	57	0.054	0.10	0.47	0.45	0.082	0.02	L(IDEM)	0.000004		0.0041	3.3×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	28%	57	0.29	0.55	2.0	1.7	0.43					N/A	N/A
1,4-Dioxane	123-91-1	5.3%	57	0.12	0.58	3.7	0.61	0.26	3.6	O(D-A)	0.0000077	O(C)	0.000071	2.0×10^{-6}
Ethanol	64-17-5	79%	57	18	24	150	66	23	100	L(IDEM)			0.00023	N/A
Ethyl Acetate	141-78-6	72%	57	0.11	0.11	0.43	0.40	0.13	0.37	ACGIH			0.00036	N/A
Ethylbenzene	100-41-4	49%	57	0.28	0.26	0.95	0.87	0.34	1	O(I)	0.0000025	C	0.00034	8.5×10^{-7}
p-Ethyltoluene	622-96-8	37%	57	0.16	0.22	0.89	0.54	0.22					N/A	N/A
Heptane	142-82-5	68%	57	0.22	0.18	0.61	0.57	0.26	0.43	ACGIH			0.0006	N/A
Hexachlorobutadiene	87-68-3	1.8%	57	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	67%	57	0.35	0.27	1.3	0.95	0.42	0.7	O(I)			0.0006	N/A
Isopropanol	67-63-0	77%	57	5.9	7.4	40	22	7.6	7	C			0.0011	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	57	2.3	3.0	16	11	3.0	5	I			0.00059	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	30%	57	0.23	0.98	7.0	1.3	0.45	3	O(I)			0.00015	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	39%	57	0.78	2.7	17	7.0	1.4	0.057	L(I)			0.024	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	11%	57	N/A	N/A	0.41	0.40	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	93%	57	0.81	0.64	2.2	1.9	0.96	3	C			0.00032	N/A
Styrene	100-42-5	23%	57	0.23	0.47	1.1	0.68	0.35	1	O(I)			0.00035	N/A
1,1,2,2-Tetrachloroethane	79-34-5	5.3%	57	0.29	0.40	0.70	0.69	0.39			0.000058	O(I)	N/A	2.3×10^{-5}
Tetrachloroethene (PCE)	127-18-4	28%	57	0.081	0.088	0.79	0.81	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	65%	57	0.10	0.12	0.56	0.38	0.13	0.035	R			0.0036	N/A
Toluene	108-88-3	100%	57	1.3	1.1	5.0	3.8	1.5	5	O(I)			0.0003	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	21%	57	0.49	0.36	0.84	0.84	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	57	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	28%	57	0.066	0.06	0.54	0.54	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	3.5%	57	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	16%	57	0.059	0.059	0.55	0.54	0.075	0.6	O(C)	0.000002	O(C)	0.00013	1.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	82%	57	0.90	0.27	1.7	1.5	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	44%	57	0.19	0.28	0.89	0.69	0.25	0.006	L(P)			0.042	N/A
1,2,4-Trimethylbenzene	95-63-6	26%	57	0.17	0.25	1.0	0.64	0.22	0.007	L(R(p))			0.032	N/A
Vinyl Chloride	75-01-4	40%	57	0.054	0.046	0.15	0.15	0.064	0.1	O(I)	0.0000088	O(I)	0.00064	5.6×10^{-7}
Vinylidene Chloride	75-35-4	53%	57	0.51	1.3	9.8	0.87	0.79	0.2	O(I)			0.004	N/A
o-Xylene	95-47-6	30%	57	0.26	0.52	1.9	1.8	0.39	0.1	O(I)			0.0039	N/A
m+p-Xylenes	106-42-3	86%	57	0.82	1.2	4.5	4.3	1.1	0.1	O(I)			0.011	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Acetone	67-64-1	91%	56	6.4	5.7	26	22	7.9	31	A			0.00025	N/A
Benzene	71-43-2	79%	56	0.54	0.35	1.7	1.0	0.61	0.03	O(I)	0.0000078	O(I)	0.02	4.7x10⁻⁶
Benzyl Chloride	100-44-7	43%	56	1.2	0.98	3.9	3.6	1.5	0.00066	ACGIH	0.000049	O(C)	2.3	7.4x10⁻⁵
Bromodichloromethane	75-27-4	3.6%	56	0.23	0.25	0.36	0.36	0.29			0.000037	C	N/A	1.1x10⁻⁵
Bromoform	75-25-2	0%	56	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	34%	56	0.43	0.32	2.5	0.70	0.50	0.005	O(I)			0.10	N/A
1,3-Butadiene	106-99-0	18%	56	0.053	0.066	0.12	0.11	0.069	0.002	O(I)	0.00003	O(I)	0.034	2.1x10⁻⁶
Carbon Disulfide	75-15-0	8.9%	56	0.062	0.16	0.16	0.16	0.10	0.7	O(I)			0.00014	N/A
Carbon Tetrachloride	56-23-5	7.1%	56	0.14	0.075	0.44	0.38	0.16	0.19	O(D-A)	0.000015	O(I)	0.00083	2.4x10⁻⁶
Chlorobenzene	108-90-7	0%	56	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	13%	56	0.34	2.6	17	0.45	0.95	10	O(I)			0.000095	N/A
Chloroform	67-66-3	14%	56	N/A	N/A	0.12	0.12	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	77%	56	0.51	0.47	1.9	1.5	0.62	0.09	O(I)			0.0069	N/A
Cyclohexane	100-82-7	61%	56	0.62	1.1	3.4	3.4	0.86	6	I			0.00014	N/A
Dibromochloromethane	124-48-1	0%	56	N/A	N/A	0.42	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	8.9%	56	0.12	0.39	2.0	0.72	0.21					N/A	N/A
p-Dichlorobenzene	106-46-7	11%	56	0.13	0.37	1.9	0.90	0.22	0.8	O(I)	0.000011	O(C)	0.00027	2.4x10⁻⁶
o-Dichlorobenzene	95-50-1	3.6%	56	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	91%	56	1.6	1.0	3.9	3.7	1.8	1.5	ACGIH			0.0012	N/A
1,1-Dichloroethane	75-34-3	1.8%	56	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.6%	56	N/A	N/A	0.27	0.27	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	13%	56	0.056	0.075	0.24	0.17	0.071	0.06	R			0.0012	N/A
c-1,2-Dichloroethene	156-59-2	7.1%	56	N/A	N/A	0.19	0.19	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	38%	56	0.19	0.26	1.1	0.83	0.25	1	O(A)	4.7x10⁻⁷	O(I)	0.00025	1.2x10⁻⁷
1,2-Dichloropropane	78-87-5	1.8%	56	N/A	N/A	0.25	0.25	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	7.1%	56	0.095	0.18	0.27	0.19	0.14					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	11%	56	0.059	0.059	0.27	0.25	0.073	0.02	L(IDEM)	0.000004		0.0036	2.9x10⁻⁷
Dichloro-Tetrafluoroethane (F-114)	76-14-2	41%	56	0.54	0.70	2.0	1.9	0.70					N/A	N/A
1,4-Dioxane	123-91-1	18%	56	0.086	0.26	0.85	0.86	0.15	3.6	O(D-A)	0.0000077	O(C)	0.000041	1.1x10⁻⁶
Ethanol	64-17-5	79%	56	9.3	14	65	49	13	100	L(IDEM)			0.00013	N/A
Ethyl Acetate	141-78-6	79%	56	0.43	0.76	4.2	2.6	0.61	0.37	ACGIH			0.0017	N/A
Ethylbenzene	100-41-4	77%	56	0.25	0.20	1.2	0.69	0.30	1	O(I)	0.0000025	C	0.0003	7.5x10⁻⁷
p-Ethyltoluene	622-96-8	43%	56	0.24	0.22	0.93	0.84	0.29					N/A	N/A
Heptane	142-82-5	68%	56	0.19	0.14	0.57	0.45	0.23	0.43	ACGIH			0.00052	N/A
Hexachlorobutadiene	87-68-3	7.1%	56	0.71	1.6	1.2	1.1	1.1	0.09	O(P-C)	0.000022	O(I)	0.012	2.4x10⁻⁵
Hexane	110-54-3	79%	56	0.35	0.25	1.2	0.84	0.42	0.7	O(I)			0.0006	N/A
Isopropanol	67-63-0	66%	56	1.5	7.4	56	3.0	3.2	7	C			0.00046	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	98%	56	2.3	2.7	20	5.6	3.0	5	I			0.00059	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	16%	56	0.21	0.57	0.98	0.57	0.34	3	O(I)			0.00011	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	43%	56	0.39	0.61	2.5	2.4	0.53	0.057	L(I)			0.0094	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	7.1%	56	0.043	0.083	0.29	0.30	0.065	3	O(I)	2.6×10^{-7}	O(C)	0.000022	1.7×10^{-8}
Propene	115-07-1	96%	56	1.2	0.74	3.5	3.4	1.4	3	C			0.00046	N/A
Styrene	100-42-5	20%	56	0.22	0.13	0.64	0.55	0.25	1	O(I)			0.00025	N/A
1,1,2,2-Tetrachloroethane	79-34-5	11%	56	2.7	8.2	7.4	7.5	4.6			0.000058	O(I)	N/A	2.7×10^{-4}
Tetrachloroethene (PCE)	127-18-4	25%	56	0.10	0.13	0.41	0.30	0.14	0.27	O(A)	0.0000059	O(C)	0.0005	8.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	46%	56	0.26	0.38	2.4	0.62	0.35	0.035	R			0.01	N/A
Toluene	108-88-3	86%	56	1.1	0.90	5.1	2.5	1.3	5	O(I)			0.00026	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	54%	56	0.35	0.30	0.77	0.64	0.42					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	5.4%	56	0.49	0.064	0.82	0.69	0.50	0.2	O(H)			0.0025	N/A
1,1,1-Trichloroethane	71-55-6	13%	56	0.076	0.11	0.24	0.24	0.10	1	O(C)			0.0001	N/A
1,1,2-Trichloroethane	79-00-5	5.4%	56	0.11	0.23	0.41	0.41	0.16	0.4	O(P-C)	0.000016	O(I)	0.00041	2.6×10^{-6}
Trichloroethene (TCE)	79-01-6	23%	56	0.10	0.13	0.43	0.38	0.13	0.6	O(C)	0.000002	O(C)	0.00022	2.7×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	77%	56	0.84	0.50	1.8	1.6	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	18%	56	0.13	0.17	0.54	0.34	0.17	0.006	L(P)			0.028	N/A
1,2,4-Trimethylbenzene	95-63-6	36%	56	0.29	0.31	1.5	0.98	0.36	0.007	L(R(p))			0.052	N/A
Vinyl Chloride	75-01-4	3.6%	56	N/A	N/A	0.22	0.22	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.6%	56	0.051	0.12	0.67	0.63	0.079	0.2	O(I)			0.0004	N/A
o-Xylene	95-47-6	34%	56	0.19	0.23	1.2	0.61	0.24	0.1	O(I)			0.0024	N/A
m+p-Xylenes	106-42-3	91%	56	0.65	0.56	3.8	1.6	0.78	0.1	O(I)			0.0078	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	97%	61	12	8.3	36	31	14	31	A			0.00045	N/A
Acrolein	107-02-8	93%	27	1.8	1.5	5.8	5.3	2.3	0.00002	O(I)			110	N/A
Benzene	71-43-2	95%	61	1.2	2.1	16	3.5	1.7	0.03	O(I)	0.0000078	O(I)	0.055	1.3×10^{-5}
Benzyl Chloride	100-44-7	0%	61	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	61	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	61	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	44%	61	0.43	0.58	2.4	2.0	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	20%	61	0.099	0.17	0.99	0.17	0.14	0.002	O(I)	0.00003	O(I)	0.069	4.1×10^{-6}
Carbon Disulfide	75-15-0	13%	61	0.075	0.11	0.62	0.11	0.10	0.7	O(I)			0.00014	N/A
Carbon Tetrachloride	56-23-5	9.8%	61	0.11	0.31	0.31	0.31	0.18	0.19	O(D-A)	0.000015	O(I)	0.00096	2.7×10^{-6}
Chlorobenzene	108-90-7	4.9%	61	0.06	0.14	0.11	0.11	0.092	1	O(C)			0.000092	N/A
Chloroethane	75-00-3	26%	61	0.032	0.025	0.11	0.10	0.037	10	O(I)			0.0000037	N/A
Chloroform	67-66-3	15%	61	0.054	0.054	0.30	0.30	0.068	0.098	O(A)	0.000023	I	0.0007	1.6×10^{-6}
Chloromethane	74-87-3	98%	61	0.95	0.37	1.7	1.5	1.0	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	33%	61	0.22	0.58	2.5	2.3	0.34	6	I			0.000057	N/A
Dibromochloromethane	124-48-1	0%	61	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	61	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.3%	61	N/A	N/A	0.26	0.26	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	61	0.09	0.17	0.96	0.44	0.13	0.8	O(I)	0.000011	O(C)	0.00017	1.5×10^{-6}
o-Dichlorobenzene	95-50-1	1.6%	61	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	97%	61	2.4	0.74	4.0	3.6	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	61	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	18%	61	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.6%	61	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	61	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	25%	61	0.14	0.26	1.1	0.94	0.19	1	O(A)	4.7×10^{-7}	O(I)	0.00019	9.1×10^{-8}
1,2-Dichloropropane	78-87-5	0%	61	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	61	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.6%	61	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.3%	61	0.10	0.27	2.1	2.1	0.17					N/A	N/A
1,4-Dioxane	123-91-1	15%	61	0.19	0.35	1.5	0.43	0.27	3.6	O(D-A)	0.0000077	O(C)	0.000075	2.1×10^{-6}
Ethanol	64-17-5	100%	61	33	32	170	99	40	100	L(IDEM)			0.0004	N/A
Ethyl Acetate	141-78-6	79%	61	0.50	0.97	5.5	3.5	0.72	0.37	ACGIH			0.0019	N/A
Ethylbenzene	100-41-4	87%	61	0.24	0.16	0.69	0.52	0.27	1	O(I)	0.0000025	C	0.00027	6.8×10^{-7}
p-Ethyltoluene	622-96-8	39%	61	0.16	0.17	0.59	0.59	0.19					N/A	N/A
Heptane	142-82-5	87%	61	0.30	0.18	0.70	0.66	0.34	0.43	ACGIH			0.0008	N/A
Hexachlorobutadiene	87-68-3	4.9%	61	0.24	0.19	1.3	0.39	0.28	0.09	O(P-C)	0.000022	O(I)	0.0031	6.1×10^{-6}
Hexane	110-54-3	87%	61	0.42	0.31	1.4	1.2	0.49	0.7	O(I)			0.0007	N/A
Isopropanol	67-63-0	93%	61	1.2	0.79	3.5	3.0	1.4	7	C			0.0002	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	97%	61	2.3	1.4	7.8	5.6	2.7	5	I			0.00053	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	8.2%	61	0.18	0.35	0.49	0.28	0.26	3	O(I)			0.000086	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	9.8%	61	0.12	0.53	2.6	0.78	0.24	0.057	L(I)			0.0042	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	3.3%	61	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	61	2.4	3.4	26	8.1	3.3	3	C			0.0011	N/A
Styrene	100-42-5	28%	61	0.32	0.43	2.3	0.89	0.42	1	O(I)			0.00042	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	61	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	11%	61	0.088	0.20	0.33	0.33	0.13	0.27	O(A)	0.0000059	O(C)	0.00048	7.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	23%	61	0.12	0.35	2.0	0.94	0.20	0.035	R			0.0056	N/A
Toluene	108-88-3	98%	61	1.3	0.79	3.5	2.9	1.5	5	O(I)			0.00029	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	66%	61	0.50	0.17	0.84	0.77	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.6%	61	N/A	N/A	0.89	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	8.2%	61	N/A	N/A	0.22	0.22	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	61	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	13%	61	0.081	0.17	1.1	0.29	0.12	0.6	O(C)	0.000002	O(C)	0.0002	2.4×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	95%	61	1.2	0.31	1.7	1.6	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	3.3%	61	0.054	0.054	0.34	0.34	0.064	0.006	L(P)			0.011	N/A
1,2,4-Trimethylbenzene	95-63-6	28%	61	0.48	0.20	1.2	0.98	0.54	0.007	L(R(p))			0.077	N/A
Vinyl Acetate	108-05-4	100%	19	2.7	3.5	13	12	4.2	0.2	O(I)			0.021	N/A
Vinyl Chloride	75-01-4	3.3%	61	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	61	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	16%	61	0.27	0.16	0.87	0.65	0.31	0.1	O(I)			0.0031	N/A
m+p-Xylenes	106-42-3	87%	61	0.56	0.52	2.3	1.8	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	96%	52	7.9	7.1	29	26	9.5	31	A			0.00031	N/A
Acrolein	107-02-8	88%	41	1.3	0.82	4.1	3.2	1.6	0.00002	O(I)			78	N/A
Benzene	71-43-2	98%	52	0.86	0.70	4.1	2.6	1.0	0.03	O(I)	0.0000078	O(I)	0.034	8.0×10^{-6}
Benzyl Chloride	100-44-7	0%	52	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	52	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	3.8%	52	0.089	0.13	0.74	0.62	0.12	0.005	O(I)			0.024	N/A
1,3-Butadiene	106-99-0	0%	52	N/A	N/A	0.18	0.18	N/A	0.002	O(I)	0.00003	O(I)	N/A	N/A
Carbon Disulfide	75-15-0	17%	52	0.056	0.068	0.28	0.22	0.072	0.7	O(I)			0.0001	N/A
Carbon Tetrachloride	56-23-5	62%	52	0.30	0.13	0.57	0.50	0.33	0.19	O(D-A)	0.000015	O(I)	0.0017	4.9×10^{-6}
Chlorobenzene	108-90-7	0%	52	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.9%	52	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	12%	52	0.059	0.042	0.24	0.15	0.068	0.098	O(A)	0.000023	I	0.0007	1.6×10^{-6}
Chloromethane	74-87-3	96%	52	0.87	0.33	1.6	1.4	0.95	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	38%	52	0.079	0.072	0.24	0.22	0.096	6	I			0.000016	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.9%	52	N/A	N/A	0.092	0.09	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	56%	52	0.28	0.40	2.0	1.2	0.38	0.8	O(I)	0.000011	O(C)	0.00047	4.2×10^{-6}
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	52	2.1	0.69	3.4	3.3	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.9%	52	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	52	N/A	N/A	0.17	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	52	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	31%	52	0.097	0.11	0.35	0.31	0.12	1	O(A)	4.7×10^{-7}	O(I)	0.00012	5.7×10^{-8}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	52	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.9%	52	N/A	N/A	0.28	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	15%	52	0.18	0.43	1.9	1.4	0.28	3.6	O(D-A)	0.0000077	O(C)	0.000078	2.2×10^{-6}
Ethanol	64-17-5	58%	52	20	20	94	55	25	100	L(IDEM)			0.00025	N/A
Ethyl Acetate	141-78-6	60%	52	0.35	0.61	3.3	2.0	0.50	0.37	ACGIH			0.0014	N/A
Ethylbenzene	100-41-4	77%	52	0.20	0.091	0.48	0.43	0.22	1	O(I)	0.0000025	C	0.00022	5.5×10^{-7}
p-Ethyltoluene	622-96-8	13%	52	0.069	0.064	0.30	0.25	0.084					N/A	N/A
Heptane	142-82-5	73%	52	0.30	0.12	0.78	0.53	0.32	0.43	ACGIH			0.00075	N/A
Hexachlorobutadiene	87-68-3	0%	52	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	52	0.39	0.19	0.92	0.84	0.42	0.7	O(I)			0.0006	N/A
Isopropanol	67-63-0	71%	52	0.86	0.86	4.8	3.0	1.1	7	C			0.00015	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	98%	52	1.8	1.1	4.5	4.4	2.0	5	I			0.00041	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	58%	52	0.36	0.23	1.3	0.86	0.41	3	O(I)			0.00014	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	94%	52	0.61	0.78	5.2	1.9	0.82	0.057	L(I)			0.014	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	52	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	92%	52	0.60	0.50	2.8	1.9	0.72	3	C			0.00024	N/A
Styrene	100-42-5	25%	52	0.14	0.26	1.2	0.77	0.21	1	O(I)			0.00021	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	19%	52	0.095	0.095	0.61	0.24	0.12	0.27	O(A)	0.0000059	O(C)	0.00043	6.8x10⁻⁷
Tetrahydrofuran (THF)	109-99-9	19%	52	0.089	0.15	0.71	0.47	0.13	0.035	R			0.0036	N/A
Toluene	108-88-3	98%	52	1.1	0.60	3.5	2.4	1.2	5	O(I)			0.00024	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	92%	52	0.53	0.11	0.77	0.73	0.56					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	1.9%	52	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	31%	52	0.11	0.12	0.54	0.46	0.13	0.6	O(C)	0.000002	O(C)	0.00022	2.7x10⁻⁷
Trichlorofluoromethane (F-11)	75-69-4	98%	52	0.96	0.30	1.5	1.5	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	5.8%	52	0.054	0.038	0.25	0.18	0.064	0.006	L(P)			0.011	N/A
1,2,4-Trimethylbenzene	95-63-6	90%	52	0.28	0.18	0.79	0.69	0.32	0.007	L(R(p))			0.046	N/A
Vinyl Acetate	108-05-4	100%	52	3.5	3.4	16	12	4.6	0.2	O(I)			0.023	N/A
Vinyl Chloride	75-01-4	0%	52	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	52	N/A	N/A	0.12	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	83%	52	0.23	0.12	0.65	0.52	0.26	0.1	O(I)			0.0026	N/A
m+p-Xylenes	106-42-3	96%	52	0.61	0.33	1.8	1.3	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	89%	37	1.9	2.8	12	11	2.7	0.03	O(I)	0.0000078	O(I)	0.091	2.1×10^{-5}
Bromomethane	74-83-9	0%	37	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	37	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	37	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	37	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	37	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	86%	37	0.87	0.37	1.5	1.5	0.97	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	49%	37	0.25	0.072	0.41	0.41	0.28	6	I			0.000046	N/A
1,2-Dibromoethane	106-93-4	0%	37	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	37	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.4%	37	0.31	0.041	0.48	0.30	0.32	0.8	O(I)	0.000011	O(C)	0.0004	3.5×10^{-6}
o-Dichlorobenzene	95-50-1	0%	37	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	95%	37	2.1	0.79	3.8	3.6	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	37	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	37	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	37	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	8.1%	37	0.35	0.024	0.45	0.42	0.35	1	O(A)	4.7×10^{-7}	O(I)	0.00035	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	0%	37	N/A	N/A	0.67	0.69	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	37	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	2.7%	37	N/A	N/A	0.045	0.045	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	8.1%	37	0.59	0.91	4.0	3.0	0.84					N/A	N/A
Ethylbenzene	100-41-4	86%	37	0.30	0.21	1.1	0.65	0.36	1	O(I)	0.0000025	C	0.00036	9.0×10^{-7}
p-Ethyltoluene	622-96-8	32%	37	0.28	0.27	1.7	0.64	0.35					N/A	N/A
Heptane	142-82-5	65%	37	0.30	0.20	0.78	0.70	0.36	0.43	ACGIH			0.00084	N/A
Hexachlorobutadiene	87-68-3	0%	37	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	73%	37	0.63	0.70	4.0	1.5	0.84	0.7	O(I)			0.0012	N/A
Propene	115-07-1	100%	37	1.7	0.58	3.5	3.3	1.9	3	C			0.00063	N/A
Styrene	100-42-5	32%	37	0.37	0.41	2.6	0.72	0.51	1	O(I)			0.00051	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	37	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	37	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	95%	37	2.7	5.3	33	11	4.1	5	O(I)			0.00083	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	0%	37	N/A	N/A	0.45	0.44	N/A					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	37	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	37	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	37	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	37	N/A	N/A	0.84	0.86	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	59%	37	0.67	0.25	1.4	1.3	0.79	0.7	L(R(h))			0.0011	N/A
1,3,5-Trimethylbenzene	108-67-8	32%	37	0.37	0.20	1.3	0.69	0.43	0.006	L(P)			0.071	N/A
1,2,4-Trimethylbenzene	95-63-6	95%	37	2.5	2.2	8.9	7.4	3.1	0.007	L(R(p))			0.44	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	37	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	37	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	22%	37	0.52	0.18	1.1	0.95	0.56	0.1	O(I)			0.0056	N/A
m+p-Xylenes	106-42-3	100%	37	1.0	0.61	3.3	2.4	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	98%	46	2.7	5.4	29	19	4.1	0.03	O(I)	0.0000078	O(I)	0.14	3.2×10^{-5}
Bromomethane	74-83-9	15%	46	0.05	0.097	0.35	0.35	0.074	0.005	O(I)			0.015	N/A
Carbon Tetrachloride	56-23-5	4.3%	46	0.35	0.21	0.69	0.69	0.40	0.19	O(D-A)	0.000015	O(I)	0.0021	6.0×10^{-6}
Chlorobenzene	108-90-7	0%	46	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	24%	46	0.045	0.058	0.63	0.63	0.061	10	O(I)			0.0000061	N/A
Chloroform	67-66-3	6.5%	46	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	100%	46	1.0	0.23	1.6	1.5	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	24%	46	0.25	0.13	0.79	0.55	0.28	6	I			0.000047	N/A
1,2-Dibromoethane	106-93-4	0%	46	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	46	N/A	N/A	0.30	0.30	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	6.5%	46	N/A	N/A	0.24	0.24	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	46	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	46	2.6	0.74	4.0	3.7	2.7	1.5	ACGIH			0.0018	N/A
1,1-Dichloroethane	75-34-3	2.2%	46	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	46	N/A	N/A	0.28	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	4.3%	46	N/A	N/A	0.51	0.51	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	13%	46	0.11	0.23	0.69	0.62	0.17	1	O(A)	4.7×10^{-7}	O(I)	0.00017	8.2×10^{-8}
1,2-Dichloropropane	78-87-5	20%	46	0.11	0.097	0.65	0.65	0.13	0.004	O(I)	0.000019	O(R)	0.033	2.5×10^{-6}
c-1,3-Dichloropropene	10061-01-3	0%	46	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	4.3%	46	0.068	0.15	0.77	0.77	0.11	0.02	L(IDEM)	0.000004		0.0054	4.4×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.2%	46	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	96%	46	0.30	0.18	1.0	0.69	0.35	1	O(I)	0.0000025	C	0.00035	8.7×10^{-7}
p-Ethyltoluene	622-96-8	35%	46	0.43	1.4	9.4	0.54	0.79					N/A	N/A
Heptane	142-82-5	93%	46	0.33	0.21	1.1	0.86	0.38	0.43	ACGIH			0.00089	N/A
Hexachlorobutadiene	87-68-3	0%	46	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	83%	46	0.56	0.35	1.7	1.3	0.67	0.7	O(I)			0.00096	N/A
Propene	115-07-1	96%	46	1.1	0.89	4.5	2.9	1.4	3	C			0.00045	N/A
Styrene	100-42-5	48%	46	0.68	1.5	10	2.3	1.1	1	O(I)			0.0011	N/A
1,1,2,2-Tetrachloroethane	79-34-5	11%	46	0.082	0.12	0.41	0.41	0.11			0.000058	O(I)	N/A	6.4×10^{-6}
Tetrachloroethene (PCE)	127-18-4	13%	46	0.081	0.095	0.75	0.75	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Toluene	108-88-3	100%	46	2.3	3.0	20	6.8	3.1	5	O(I)			0.00061	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	37%	46	0.51	0.084	0.69	0.69	0.53					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	46	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	2.2%	46	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	2.2%	46	N/A	N/A	0.44	0.44	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	46	N/A	N/A	0.81	0.81	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	96%	46	1.2	0.33	1.9	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	22%	46	0.54	1.7	11	0.59	0.98	0.006	L(P)			0.16	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	46	3.0	4.9	33	12	4.2	0.007	L(R(p))			0.60	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	8.7%	46	0.031	0.054	0.51	0.51	0.046	0.1	O(I)	0.0000088	O(I)	0.00046	4.1x10⁻⁷
Vinylidene Chloride	75-35-4	2.2%	46	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	30%	46	0.95	2.4	15	5.2	1.6	0.1	O(I)			0.016	N/A
m+p-Xylenes	106-42-3	98%	46	1.0	1.2	8.2	2.1	1.3	0.1	O(I)			0.013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	56	3.1	5.1	31	18	4.1	0.03	O(I)	0.0000078	O(I)	0.14	3.2×10^{-5}
Bromomethane	74-83-9	16%	56	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	3.6%	56	0.38	0.094	0.88	0.82	0.41	0.19	O(D-A)	0.000015	O(I)	0.0022	6.1×10^{-6}
Chlorobenzene	108-90-7	7.1%	56	0.11	0.14	0.83	0.33	0.15	1	O(C)			0.00015	N/A
Chloroethane	75-00-3	21%	56	0.045	0.069	0.40	0.24	0.061	10	O(I)			0.0000061	N/A
Chloroform	67-66-3	3.6%	56	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	95%	56	0.82	0.35	1.7	1.4	0.91	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	46%	56	0.30	0.17	0.89	0.72	0.34	6	I			0.000057	N/A
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.4%	56	0.10	0.34	0.48	0.48	0.18					N/A	N/A
p-Dichlorobenzene	106-46-7	18%	56	0.37	0.96	2.9	1.9	0.59	0.8	O(I)	0.000011	O(C)	0.00074	6.5×10^{-6}
o-Dichlorobenzene	95-50-1	1.8%	56	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	56	2.2	0.64	3.1	3.0	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	5.4%	56	0.069	0.23	1.3	1.3	0.12	0.5	O(H)	0.0000016	O(C)	0.00024	1.9×10^{-7}
1,2-Dichloroethane	107-06-2	1.8%	56	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	56	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	8.9%	56	0.059	0.12	0.42	0.38	0.087	1	O(A)	4.7×10^{-7}	O(I)	0.000087	4.1×10^{-8}
1,2-Dichloropropane	78-87-5	0%	56	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	56	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	56	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	56	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	56	0.91	4.0	30	1.1	1.8	1	O(I)	0.0000025	C	0.0018	4.6×10^{-6}
p-Ethyltoluene	622-96-8	77%	56	0.44	0.45	2.5	1.7	0.54					N/A	N/A
Heptane	142-82-5	89%	56	0.40	0.30	1.6	1.0	0.49	0.43	ACGIH			0.0011	N/A
Hexachlorobutadiene	87-68-3	3.6%	56	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	56	0.70	0.92	6.3	2.4	0.92	0.7	O(I)			0.0013	N/A
Propene	115-07-1	100%	56	2.1	1.4	5.9	5.2	2.4	3	C			0.0008	N/A
Styrene	100-42-5	48%	56	0.43	0.51	3.6	1.2	0.55	1	O(I)			0.00055	N/A
1,1,2,2-Tetrachloroethane	79-34-5	8.9%	56	N/A	N/A	0.48	0.48	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	3.6%	56	N/A	N/A	0.41	0.41	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	56	3.4	8.3	62	7.9	5.3	5	O(I)			0.0011	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	27%	56	0.54	0.032	0.69	0.61	0.55					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	7.1%	56	0.12	0.47	0.54	0.54	0.23	0.2	O(H)			0.0011	N/A
1,1,1-Trichloroethane	71-55-6	3.6%	56	0.082	0.20	0.98	0.98	0.13	1	O(C)			0.00013	N/A
1,1,2-Trichloroethane	79-00-5	3.6%	56	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	56	N/A	N/A	0.32	0.32	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	86%	56	1.1	0.26	1.7	1.6	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	43%	56	0.48	0.44	2.4	1.9	0.59	0.006	L(P)			0.098	N/A
1,2,4-Trimethylbenzene	95-63-6	91%	56	1.2	1.1	5.6	4.4	1.5	0.007	L(R(p))			0.21	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	1.8%	56	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	56	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	30%	56	0.78	1.8	13	1.6	1.2	0.1	O(I)			0.012	N/A
m+p-Xylenes	106-42-3	100%	56	2.4	10	77	3.9	4.8	0.1	O(I)			0.048	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	53	9.3	7.1	33	26	11	31	A			0.00036	N/A
Benzene	71-43-2	92%	53	1.4	1.6	6.8	5.7	1.8	0.03	O(I)	0.0000078	O(I)	0.061	1.4x10⁻⁵
Benzyl Chloride	100-44-7	1.9%	53	N/A	N/A	0.45	0.46	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	3.8%	53	N/A	N/A	0.20	0.19	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	53	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	13%	53	0.05	0.10	0.42	0.43	0.074	0.005	O(I)			0.015	N/A
1,3-Butadiene	106-99-0	13%	53	0.13	0.31	0.66	0.60	0.21	0.002	O(I)	0.00003	O(I)	0.10	6.2x10⁻⁶
Carbon Disulfide	75-15-0	13%	53	0.096	0.37	0.45	0.47	0.18	0.7	O(I)			0.00026	N/A
Carbon Tetrachloride	56-23-5	1.9%	53	N/A	N/A	0.13	0.13	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	1.9%	53	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	9.4%	53	N/A	N/A	0.69	0.69	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	23%	53	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	87%	53	1.6	3.1	15	11	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	25%	53	0.072	0.15	0.93	0.34	0.11	6	I			0.000018	N/A
Dibromochloromethane	124-48-1	0%	53	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	53	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.8%	53	0.072	0.15	0.84	0.84	0.11					N/A	N/A
p-Dichlorobenzene	106-46-7	7.5%	53	0.078	0.17	0.96	0.35	0.12	0.8	O(I)	0.000011	O(C)	0.00015	1.3x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	53	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	53	5.4	15	83	46	9.4	1.5	ACGIH			0.0063	N/A
1,1-Dichloroethane	75-34-3	3.8%	53	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.9%	53	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	3.8%	53	N/A	N/A	0.16	0.15	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.9%	53	N/A	N/A	0.04	0.04	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	13%	53	0.08	0.08	0.37	0.38	0.097	1	O(A)	4.7x10⁻⁷	O(I)	0.000097	4.6x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	53	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	53	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.9%	53	N/A	N/A	0.091	0.091	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	5.7%	53	N/A	N/A	2.3	2.3	N/A					N/A	N/A
1,4-Dioxane	123-91-1	1.9%	53	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	94%	53	32	50	340	110	44	100	L(IDEM)			0.00044	N/A
Ethyl Acetate	141-78-6	55%	53	0.13	0.18	0.94	0.54	0.17	0.37	ACGIH			0.00047	N/A
Ethylbenzene	100-41-4	43%	53	0.11	0.16	1.0	0.36	0.15	1	O(I)	0.0000025	C	0.00015	3.8x10⁻⁷
p-Ethyltoluene	622-96-8	21%	53	0.11	0.14	0.54	0.33	0.14					N/A	N/A
Heptane	142-82-5	64%	53	0.17	0.23	1.6	0.45	0.23	0.43	ACGIH			0.00053	N/A
Hexachlorobutadiene	87-68-3	1.9%	53	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	66%	53	0.35	0.60	4.3	0.92	0.53	0.7	O(I)			0.00075	N/A
Isopropanol	67-63-0	42%	53	0.93	1.3	8.8	2.4	1.2	7	C			0.00018	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	83%	53	1.9	2.4	17	5.0	2.5	5	I			0.0005	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	32%	53	0.11	0.15	2.0	2.0	0.15	3	O(I)			0.000049	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	30%	53	0.23	0.61	2.1	2.1	0.37	0.057	L(I)			0.0065	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	1.9%	53	N/A	N/A	0.25	0.25	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	53	3.1	7.2	49	12	4.8	3	C			0.0016	N/A
Styrene	100-42-5	3.8%	53	0.064	0.15	0.29	0.29	0.10	1	O(I)			0.0001	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.9%	53	N/A	N/A	0.069	0.069	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	15%	53	N/A	N/A	0.99	1.0	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	38%	53	0.30	1.3	9.3	0.97	0.62	0.035	R			0.018	N/A
Toluene	108-88-3	91%	53	0.83	0.90	5.9	2.2	1.1	5	O(I)			0.00021	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	38%	53	0.56	0.084	0.92	0.77	0.58					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.9%	53	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	5.7%	53	N/A	N/A	1.0	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	1.9%	53	N/A	N/A	0.055	0.055	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	3.8%	53	N/A	N/A	1.2	1.2	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	94%	53	0.96	0.24	1.5	1.4	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	15%	53	0.11	0.24	0.64	0.33	0.17	0.006	L(P)			0.029	N/A
1,2,4-Trimethylbenzene	95-63-6	7.5%	53	0.10	0.30	1.2	0.38	0.17	0.007	L(R(p))			0.025	N/A
Vinyl Chloride	75-01-4	7.5%	53	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.8%	53	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	11%	53	0.10	0.16	0.91	0.48	0.14	0.1	O(I)			0.0014	N/A
m+p-Xylenes	106-42-3	68%	53	0.28	0.43	2.8	1.1	0.39	0.1	O(I)			0.0039	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	60	150	1000	8000	43	380	31	A			0.012	N/A
Benzene	71-43-2	93%	60	2.2	3.8	17	16	3.0	0.03	O(I)	0.0000078	O(I)	0.10	2.4x10⁻⁵
Benzyl Chloride	100-44-7	0%	60	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	60	N/A	N/A		N/A	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	60	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	37%	60	0.11	0.19	0.70	0.47	0.15	0.005	O(I)			0.03	N/A
1,3-Butadiene	106-99-0	42%	60	0.24	0.44	2.3	1.1	0.33	0.002	O(I)	0.00003	O(I)	0.17	9.9x10⁻⁶
Carbon Disulfide	75-15-0	67%	60	0.75	2.2	10	7.5	1.2	0.7	O(I)			0.0018	N/A
Carbon Tetrachloride	56-23-5	0%	60	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	60	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	10%	60	0.12	0.37	1.6	1.3	0.21	10	O(I)			0.000021	N/A
Chloroform	67-66-3	37%	60	N/A	N/A	0.098	0.068	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	60	1.2	1.1	8.2	2.7	1.4	0.09	O(I)			0.016	N/A
Cyclohexane	100-82-7	60%	60	0.079	0.069	0.31	0.24	0.093	6	I			0.000015	N/A
Dibromochloromethane	124-48-1	0%	60	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	20%	60	0.31	1.0	7.3	0.43	0.54					N/A	N/A
p-Dichlorobenzene	106-46-7	22%	60	0.36	1.1	8.5	0.66	0.60	0.8	O(I)	0.000011	O(C)	0.00075	6.6x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	60	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	80%	60	2.1	1.1	3.7	3.4	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	60	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	60	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	60	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.7%	60	N/A	N/A	0.079	0.079	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	63%	60	0.11	0.087	0.37	0.38	0.13	1	O(A)	4.7x10⁻⁷	O(I)	0.00013	6.2x10⁻⁸
1,2-Dichloropropane	78-87-5	3.3%	60	N/A	N/A	1.4	1.4	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.7%	60	N/A	N/A	0.045	0.045	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	60	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	37%	60	0.084	0.068	1.8	1.7	0.098					N/A	N/A
1,4-Dioxane	123-91-1	6.7%	60	N/A	N/A	0.79	0.72	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	60	38	26	130	93	43	100	L(IDEM)			0.00043	N/A
Ethyl Acetate	141-78-6	78%	60	0.14	0.13	0.76	0.40	0.17	0.37	ACGIH			0.00046	N/A
Ethylbenzene	100-41-4	60%	60	0.11	0.074	0.35	0.23	0.13	1	O(I)	0.0000025	C	0.00013	3.3x10⁻⁷
p-Ethyltoluene	622-96-8	22%	60	0.13	0.16	0.64	0.45	0.16					N/A	N/A
Heptane	142-82-5	58%	60	0.12	0.094	0.37	0.29	0.14	0.43	ACGIH			0.00033	N/A
Hexachlorobutadiene	87-68-3	0%	60	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	75%	60	0.25	0.17	0.70	0.67	0.29	0.7	O(I)			0.00042	N/A
Isopropanol	67-63-0	90%	60	84	620	4800	69	220	7	C			0.032	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	100%	60	1.6	0.91	6.0	3.2	1.8	5	I			0.00037	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	18%	60	3.3	24	180	170	8.6	3	O(I)			0.0029	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	38%	60	0.27	0.66	4.8	2.3	0.41	0.057	L(I)			0.0072	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	1.7%	60	N/A	N/A	0.28	0.28	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	97%	60	1.9	3.4	20	12	2.6	3	C			0.00086	N/A
Styrene	100-42-5	15%	60	0.098	0.13	0.60	0.29	0.13	1	O(I)			0.00013	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	60	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	28%	60	0.081	0.068	0.92	0.95	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	62%	60	0.094	0.097	0.35	0.27	0.12	0.035	R			0.0034	N/A
Toluene	108-88-3	97%	60	0.98	0.60	2.6	2.5	1.1	5	O(I)			0.00022	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	43%	60	0.49	0.73	4.7	0.61	0.65					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	60	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	52%	60	N/A	N/A	0.16	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	60	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	23%	60	0.081	0.097	0.89	0.91	0.10	0.6	O(C)	0.000002	O(C)	0.00017	2.0×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	60	1.2	0.28	2.6	1.7	1.3	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	17%	60	0.11	0.20	0.64	0.38	0.15	0.006	L(P)			0.025	N/A
1,2,4-Trimethylbenzene	95-63-6	8.3%	60	0.12	0.18	0.44	0.43	0.16	0.007	L(R(p))			0.022	N/A
Vinyl Chloride	75-01-4	1.7%	60	N/A	N/A	0.026	0.026	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	5.0%	60	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	23%	60	0.087	0.13	0.46	0.48	0.12	0.1	O(I)			0.0012	N/A
m+p-Xylenes	106-42-3	80%	60	0.28	0.25	1.0	0.82	0.34	0.1	O(I)			0.0034	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	60	8.8	5.7	26	22	10	31	A			0.00032	N/A
Benzene	71-43-2	97%	60	1.9	2.9	14	12	2.5	0.03	O(I)	0.0000078	O(I)	0.083	1.9×10^{-5}
Benzyl Chloride	100-44-7	10%	60	0.51	0.18	1.2	1.0	0.57	0.00066	ACGIH	0.000049	O(C)	0.86	2.8×10^{-5}
Bromodichloromethane	75-27-4	6.7%	60	N/A	N/A	0.71	0.74	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	1.7%	60	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	43%	60	0.39	0.47	1.5	1.1	0.50	0.005	O(I)			0.10	N/A
1,3-Butadiene	106-99-0	28%	60	0.40	2.7	19	0.66	0.97	0.002	O(I)	0.00003	O(I)	0.49	2.9×10^{-5}
Carbon Disulfide	75-15-0	58%	60	1.2	1.3	5.7	4.4	1.5	0.7	O(I)			0.0021	N/A
Carbon Tetrachloride	56-23-5	1.7%	60	N/A	N/A	0.88	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	5.0%	60	0.06	0.14	0.61	0.60	0.092	1	O(C)			0.000092	N/A
Chloroethane	75-00-3	48%	60	0.18	0.25	1.0	0.69	0.24	10	O(I)			0.000024	N/A
Chloroform	67-66-3	8.3%	60	N/A	N/A	0.50	0.49	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	78%	60	0.45	0.29	1.5	1.1	0.51	0.09	O(I)			0.0057	N/A
Cyclohexane	100-82-7	27%	60	0.10	0.19	0.55	0.41	0.15	6	I			0.000025	N/A
Dibromochloromethane	124-48-1	6.7%	60	0.10	0.20	0.97	0.94	0.15			0.000027	C	N/A	4.1×10^{-6}
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.3%	60	0.09	0.23	0.63	0.60	0.14					N/A	N/A
p-Dichlorobenzene	106-46-7	6.7%	60	0.34	3.0	17	1.0	1.0	0.8	O(I)	0.000011	O(C)	0.0013	1.1×10^{-5}
o-Dichlorobenzene	95-50-1	3.3%	60	0.20	0.84	4.9	0.84	0.40	0.6	R			0.00066	N/A
Dichlorodifluoromethane (F-12)	75-71-8	85%	60	1.5	0.54	4.5	2.3	1.6	1.5	ACGIH			0.0011	N/A
1,1-Dichloroethane	75-34-3	0%	60	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	23%	60	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	8.3%	60	0.064	0.23	0.40	0.40	0.12	0.06	R			0.0019	N/A
c-1,2-Dichloroethene	156-59-2	13%	60	0.044	0.051	0.41	0.40	0.055	0.03	R			0.0018	N/A
Dichloromethane	75-09-2	13%	60	0.12	0.17	0.32	0.32	0.16	1	O(A)	4.7×10^{-7}	O(I)	0.00016	7.5×10^{-8}
1,2-Dichloropropane	78-87-5	0%	60	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.7%	60	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	5.0%	60	N/A	N/A	0.47	0.45	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	25%	60	0.30	0.50	1.7	1.5	0.41					N/A	N/A
1,4-Dioxane	123-91-1	5.0%	60	0.047	0.11	0.60	0.61	0.072	3.6	O(D-A)	0.0000077	O(C)	0.00002	5.5×10^{-7}
Ethanol	64-17-5	90%	60	24	27	190	71	30	100	L(IDEM)			0.0003	N/A
Ethyl Acetate	141-78-6	77%	60	0.18	0.27	1.5	0.86	0.24	0.37	ACGIH			0.00064	N/A
Ethylbenzene	100-41-4	38%	60	0.20	0.22	1.2	0.52	0.25	1	O(I)	0.0000025	C	0.00025	6.2×10^{-7}
p-Ethyltoluene	622-96-8	33%	60	0.16	0.25	0.93	0.59	0.22					N/A	N/A
Heptane	142-82-5	60%	60	0.21	0.18	0.74	0.49	0.25	0.43	ACGIH			0.00059	N/A
Hexachlorobutadiene	87-68-3	3.3%	60	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	73%	60	0.34	0.20	0.95	0.84	0.39	0.7	O(I)			0.00055	N/A
Isopropanol	67-63-0	65%	60	1.4	7.6	59	2.0	3.2	7	C			0.00046	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	88%	60	1.5	0.94	5.6	3.2	1.7	5	I			0.00034	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	30%	60	0.11	0.19	0.41	0.37	0.16	3	O(I)			0.000052	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	37%	60	0.57	2.9	21	1.4	1.2	0.057	L(I)			0.021	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	27%	60	0.058	0.14	0.41	0.40	0.09	3	O(I)	2.6×10^{-7}	O(C)	0.00003	2.3×10^{-8}
Propene	115-07-1	92%	60	1.2	1.7	13	2.6	1.5	3	C			0.00051	N/A
Styrene	100-42-5	23%	60	0.10	0.26	0.66	0.68	0.16	1	O(I)			0.00016	N/A
1,1,2,2-Tetrachloroethane	79-34-5	3.3%	60	0.21	1.0	0.70	0.69	0.45			0.000058	O(I)	N/A	2.6×10^{-5}
Tetrachloroethene (PCE)	127-18-4	20%	60	0.075	0.059	0.79	0.81	0.088	0.27	O(A)	0.0000059	O(C)	0.00033	5.2×10^{-7}
Tetrahydrofuran (THF)	109-99-9	65%	60	0.11	0.10	0.35	0.32	0.13	0.035	R			0.0037	N/A
Toluene	108-88-3	98%	60	0.87	0.75	4.7	2.1	1.1	5	O(I)			0.00021	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	17%	60	0.52	0.38	0.84	0.84	0.61					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.7%	60	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	17%	60	0.066	0.076	0.54	0.54	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	1.7%	60	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	30%	60	0.059	0.032	0.55	0.54	0.064	0.6	O(C)	0.000002	O(C)	0.00011	1.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	87%	60	0.84	0.22	1.5	1.3	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	35%	60	0.12	0.22	0.65	0.64	0.17	0.006	L(P)			0.028	N/A
1,2,4-Trimethylbenzene	95-63-6	20%	60	0.14	0.26	0.49	0.39	0.20	0.007	L(R(p))			0.029	N/A
Vinyl Chloride	75-01-4	8.3%	60	0.051	0.14	0.82	0.061	0.082	0.1	O(I)	0.0000088	O(I)	0.00082	7.2×10^{-7}
Vinylidene Chloride	75-35-4	3.3%	60	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	25%	60	0.13	0.30	1.7	0.69	0.20	0.1	O(I)			0.002	N/A
m+p-Xylenes	106-42-3	68%	60	0.52	0.82	4.8	3.3	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	58	9.3	9.3	42	36	11	31	A			0.00037	N/A
Benzene	71-43-2	83%	58	2.5	4.5	20	16	3.5	0.03	O(I)	0.0000078	O(I)	0.12	2.7×10^{-5}
Benzyl Chloride	100-44-7	40%	58	1.3	1.0	3.7	3.6	1.5	0.00066	ACGIH	0.000049	O(C)	2.3	7.4×10^{-5}
Bromodichloromethane	75-27-4	5.2%	58	0.15	0.45	0.36	0.36	0.26			0.000037	C	N/A	9.7×10^{-6}
Bromoform	75-25-2	0%	58	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	41%	58	0.47	0.33	2.2	1.1	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	19%	58	0.066	0.12	0.62	0.19	0.093	0.002	O(I)	0.00003	O(I)	0.046	2.8×10^{-6}
Carbon Disulfide	75-15-0	10%	58	0.053	0.11	0.50	0.25	0.078	0.7	O(I)			0.00011	N/A
Carbon Tetrachloride	56-23-5	8.6%	58	0.14	0.069	0.44	0.33	0.16	0.19	O(D-A)	0.000015	O(I)	0.00083	2.4×10^{-6}
Chlorobenzene	108-90-7	0%	58	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	8.6%	58	0.053	0.17	0.45	0.45	0.092	10	O(I)			0.0000092	N/A
Chloroform	67-66-3	19%	58	0.054	0.045	0.12	0.12	0.063	0.098	O(A)	0.000023	I	0.00065	1.5×10^{-6}
Chloromethane	74-87-3	79%	58	0.64	0.54	2.0	1.7	0.76	0.09	O(I)			0.0085	N/A
Cyclohexane	100-82-7	69%	58	0.83	1.2	3.5	3.4	1.1	6	I			0.00018	N/A
Dibromochloromethane	124-48-1	0%	58	N/A	N/A	0.42	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	1.7%	58	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	14%	58	0.096	0.14	0.48	0.38	0.13					N/A	N/A
p-Dichlorobenzene	106-46-7	19%	58	0.14	0.26	1.7	0.41	0.20	0.8	O(I)	0.000011	O(C)	0.00025	2.2×10^{-6}
o-Dichlorobenzene	95-50-1	1.7%	58	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	58	1.8	1.1	4.1	3.9	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	58	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	6.9%	58	0.069	0.15	0.27	0.27	0.11	2.4	O(A)	0.000026	O(I)	0.000044	2.7×10^{-6}
t-1,2-Dichloroethene	156-60-5	22%	58	0.083	0.099	0.28	0.24	0.11	0.06	R			0.0018	N/A
c-1,2-Dichloroethene	156-59-2	10%	58	0.048	0.063	0.19	0.19	0.059	0.03	R			0.002	N/A
Dichloromethane	75-09-2	26%	58	0.24	0.24	1.0	0.73	0.29	1	O(A)	4.7×10^{-7}	O(I)	0.00029	1.4×10^{-7}
1,2-Dichloropropane	78-87-5	3.4%	58	0.069	0.18	0.25	0.25	0.11	0.004	O(I)	0.000019	O(R)	0.028	2.1×10^{-6}
c-1,3-Dichloropropene	10061-01-3	5.2%	58	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	10%	58	0.054	0.05	0.32	0.16	0.064	0.02	L(IDEM)	0.000004		0.0032	2.5×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	33%	58	0.52	0.69	1.9	1.9	0.68					N/A	N/A
1,4-Dioxane	123-91-1	19%	58	0.24	1.0	6.6	0.86	0.47	3.6	O(D-A)	0.0000077	O(C)	0.00013	3.6×10^{-6}
Ethanol	64-17-5	83%	58	10	14	57	48	14	100	L(IDEM)			0.00014	N/A
Ethyl Acetate	141-78-6	78%	58	0.94	2.4	13	7.6	1.5	0.37	ACGIH			0.004	N/A
Ethylbenzene	100-41-4	66%	58	0.18	0.12	0.74	0.40	0.21	1	O(I)	0.0000025	C	0.00021	5.2×10^{-7}
p-Ethyltoluene	622-96-8	41%	58	0.18	0.15	0.39	0.39	0.21					N/A	N/A
Heptane	142-82-5	60%	58	0.22	0.17	0.94	0.57	0.26	0.43	ACGIH			0.0006	N/A
Hexachlorobutadiene	87-68-3	6.9%	58	0.96	0.039	1.2	1.1	0.97	0.09	O(P-C)	0.000022	O(I)	0.011	2.1×10^{-5}
Hexane	110-54-3	76%	58	0.39	0.34	1.8	1.2	0.46	0.7	O(I)			0.00065	N/A
Isopropanol	67-63-0	72%	58	3.0	5.9	36	16	4.4	7	C			0.00063	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	58	2.7	2.4	13	10	3.2	5	I			0.00065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	34%	58	0.32	0.61	3.5	1.7	0.45	3	O(I)			0.00015	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	41%	58	0.53	0.94	5.3	2.8	0.74	0.057	L(I)			0.013	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	12%	58	0.16	0.51	2.9	1.1	0.27	3	O(I)	2.6x10^{-7}	O(C)	0.000089	6.9x10^{-8}
Propene	115-07-1	100%	58	1.4	0.88	3.9	2.9	1.6	3	C			0.00054	N/A
Styrene	100-42-5	19%	58	0.12	0.23	0.38	0.35	0.17	1	O(I)			0.00017	N/A
1,1,2,2-Tetrachloroethane	79-34-5	12%	58	2.3	10	7.4	7.5	4.6			0.000058	O(I)	N/A	2.7x10^{-4}
Tetrachloroethene (PCE)	127-18-4	16%	58	0.088	0.14	0.30	0.30	0.12	0.27	O(A)	0.0000059	O(C)	0.00045	7.2x10^{-7}
Tetrahydrofuran (THF)	109-99-9	66%	58	0.28	0.41	3.0	0.59	0.38	0.035	R			0.011	N/A
Toluene	108-88-3	84%	58	0.90	0.83	3.7	2.9	1.1	5	O(I)			0.00022	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	66%	58	0.41	0.21	0.77	0.69	0.46					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.4%	58	0.63	0.11	1.2	0.69	0.65	0.2	O(H)			0.0033	N/A
1,1,1-Trichloroethane	71-55-6	14%	58	0.076	0.098	0.24	0.24	0.098	1	O(C)			0.000098	N/A
1,1,2-Trichloroethane	79-00-5	1.7%	58	N/A	N/A	0.41	0.41	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	12%	58	0.07	0.097	0.30	0.31	0.091	0.6	O(C)	0.000002	O(C)	0.00015	1.8x10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	88%	58	1.1	0.67	4.4	2.0	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	16%	58	0.14	0.23	0.84	0.34	0.20	0.006	L(P)			0.033	N/A
1,2,4-Trimethylbenzene	95-63-6	24%	58	0.19	0.30	0.93	0.69	0.26	0.007	L(R(p))			0.037	N/A
Vinyl Chloride	75-01-4	3.4%	58	N/A	N/A	0.22	0.22	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.7%	58	N/A	N/A	0.62	0.63	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	19%	58	0.10	0.16	0.74	0.56	0.14	0.1	O(I)			0.0014	N/A
m+p-Xylenes	106-42-3	88%	58	0.43	0.39	2.2	1.3	0.52	0.1	O(I)			0.0052	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	57	14	20	150	36	19	31	A			0.0006	N/A
Acrolein	107-02-8	100%	27	1.6	1.1	4.4	3.9	2.0	0.00002	O(I)			100	N/A
Benzene	71-43-2	98%	57	2.2	4.8	37	6.4	3.2	0.03	O(I)	0.0000078	O(I)	0.11	2.5x10⁻⁵
Benzyl Chloride	100-44-7	1.8%	57	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	1.8%	57	N/A	N/A	0.54	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	1.8%	57	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	46%	57	0.70	3.0	22	1.6	1.4	0.005	O(I)			0.28	N/A
1,3-Butadiene	106-99-0	21%	57	0.064	0.088	0.18	0.17	0.086	0.002	O(I)	0.00003	O(I)	0.043	2.6x10⁻⁶
Carbon Disulfide	75-15-0	7.0%	57	0.14	0.53	3.5	0.23	0.26	0.7	O(I)			0.00038	N/A
Carbon Tetrachloride	56-23-5	14%	57	0.25	0.88	6.1	0.35	0.45	0.19	O(D-A)	0.000015	O(I)	0.0024	6.8x10⁻⁶
Chlorobenzene	108-90-7	0%	57	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	25%	57	0.042	0.048	0.10	0.10	0.053	10	O(I)			0.0000053	N/A
Chloroform	67-66-3	19%	57	0.059	0.13	0.73	0.30	0.088	0.098	O(A)	0.000023	I	0.0009	2.0x10⁻⁶
Chloromethane	74-87-3	100%	57	1.4	2.7	22	1.7	2.1	0.09	O(I)			0.023	N/A
Cyclohexane	100-82-7	37%	57	0.23	0.55	2.5	2.4	0.34	6	I			0.000057	N/A
Dibromochloromethane	124-48-1	1.8%	57	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	7.0%	57	0.14	0.10	0.66	0.36	0.16					N/A	N/A
p-Dichlorobenzene	106-46-7	5.3%	57	0.072	0.084	0.54	0.27	0.09	0.8	O(I)	0.000011	O(C)	0.00011	9.9x10⁻⁷
o-Dichlorobenzene	95-50-1	1.8%	57	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	57	3.3	6.9	55	3.8	4.9	1.5	ACGIH			0.0033	N/A
1,1-Dichloroethane	75-34-3	0%	57	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	14%	57	0.053	0.13	0.73	0.15	0.081	2.4	O(A)	0.000026	O(I)	0.000034	2.1x10⁻⁶
t-1,2-Dichloroethene	156-60-5	1.8%	57	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	5.3%	57	0.091	0.11	0.14	0.14	0.12	0.03	R			0.004	N/A
Dichloromethane	75-09-2	16%	57	0.28	0.90	6.5	0.97	0.49	1	O(A)	4.7x10⁻⁷	O(I)	0.00049	2.3x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	57	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.8%	57	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.8%	57	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	57	N/A	N/A	2.1	2.1	N/A					N/A	N/A
1,4-Dioxane	123-91-1	18%	57	0.19	0.36	1.8	0.61	0.28	3.6	O(D-A)	0.0000077	O(C)	0.000077	2.1x10⁻⁶
Ethanol	64-17-5	98%	57	31	42	260	130	40	100	L(IDEM)			0.0004	N/A
Ethyl Acetate	141-78-6	70%	57	0.58	1.0	6.5	2.5	0.79	0.37	ACGIH			0.0021	N/A
Ethylbenzene	100-41-4	56%	57	0.22	0.52	3.7	0.43	0.33	1	O(I)	0.0000025	C	0.00033	8.4x10⁻⁷
p-Ethyltoluene	622-96-8	30%	57	0.14	0.18	0.59	0.59	0.18					N/A	N/A
Heptane	142-82-5	88%	57	0.37	0.33	2.4	0.78	0.45	0.43	ACGIH			0.001	N/A
Hexachlorobutadiene	87-68-3	5.3%	57	0.18	0.31	0.38	0.39	0.25	0.09	O(P-C)	0.000022	O(I)	0.0027	5.4x10⁻⁶
Hexane	110-54-3	82%	57	0.56	0.99	7.5	1.3	0.77	0.7	O(I)			0.0011	N/A
Isopropanol	67-63-0	100%	57	2.1	2.7	19	5.9	2.7	7	C			0.00039	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	98%	57	3.0	5.3	41	7.1	4.1	5	I			0.00083	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	14%	57	0.14	0.39	2.0	0.45	0.23	3	O(I)			0.000078	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	14%	57	0.26	0.70	3.3	1.4	0.41	0.057	L(I)			0.0072	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	57	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	96%	57	2.4	4.6	37	4.6	3.4	3	C			0.0011	N/A
Styrene	100-42-5	3.5%	57	0.22	0.023	0.34	0.34	0.22	1	O(I)			0.00022	N/A
1,1,2,2-Tetrachloroethane	79-34-5	3.5%	57	0.17	0.75	0.37	0.37	0.35			0.000058	O(I)	N/A	2.0×10^{-5}
Tetrachloroethene (PCE)	127-18-4	8.8%	57	0.088	0.21	1.2	0.33	0.14	0.27	O(A)	0.0000059	O(C)	0.0005	8.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	33%	57	0.065	0.086	0.30	0.27	0.086	0.035	R			0.0024	N/A
Toluene	108-88-3	96%	57	1.2	2.5	19	2.3	1.7	5	O(I)			0.00035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	65%	57	0.71	1.5	11	0.84	1.1					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.8%	57	N/A	N/A	0.48	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	18%	57	0.076	0.16	0.98	0.22	0.11	1	O(C)			0.00011	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	57	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	12%	57	0.081	0.13	0.64	0.13	0.11	0.6	O(C)	0.000002	O(C)	0.00019	2.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	93%	57	1.5	2.5	19	1.7	2.0	0.7	L(R(h))			0.0029	N/A
1,3,5-Trimethylbenzene	108-67-8	3.5%	57	0.22	0.54	0.34	0.34	0.35	0.006	L(P)			0.058	N/A
1,2,4-Trimethylbenzene	95-63-6	26%	57	0.47	0.74	5.5	0.74	0.64	0.007	L(R(p))			0.091	N/A
Vinyl Acetate	108-05-4	100%	18	3.4	4.9	19	15	5.6	0.2	O(I)			0.028	N/A
Vinyl Chloride	75-01-4	3.5%	57	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	57	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	8.8%	57	0.20	0.56	3.8	0.33	0.33	0.1	O(I)			0.0033	N/A
m+p-Xylenes	106-42-3	72%	57	0.43	0.65	4.6	1.2	0.61	0.1	O(I)			0.0061	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	85%	55	6.7	10	74	22	9.0	31	A			0.00029	N/A
Acrolein	107-02-8	80%	44	1.4	1.2	5.1	3.7	1.7	0.00002	O(I)			84	N/A
Benzene	71-43-2	89%	55	1.7	2.7	20	4.1	2.3	0.03	O(I)	0.0000078	O(I)	0.077	1.8×10^{-5}
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	55	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	0%	55	N/A	N/A	0.61	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	1.8%	55	N/A	N/A	0.27	0.18	N/A	0.002	O(I)	0.00003	O(I)	N/A	N/A
Carbon Disulfide	75-15-0	18%	55	0.075	0.12	0.72	0.34	0.10	0.7	O(I)			0.00015	N/A
Carbon Tetrachloride	56-23-5	69%	55	0.30	0.12	0.50	0.50	0.33	0.19	O(D-A)	0.000015	O(I)	0.0017	4.9×10^{-6}
Chlorobenzene	108-90-7	0%	55	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.8%	55	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	1.8%	55	N/A	N/A	0.15	0.12	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	87%	55	0.78	0.39	1.4	1.4	0.87	0.09	O(I)			0.0096	N/A
Cyclohexane	100-82-7	73%	55	3.2	15	98	24	6.5	6	I			0.0011	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	7.3%	55	0.066	0.031	0.18	0.13	0.072					N/A	N/A
p-Dichlorobenzene	106-46-7	40%	55	0.17	0.22	1.0	0.78	0.23	0.8	O(I)	0.000011	O(C)	0.00029	2.5×10^{-6}
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	85%	55	1.9	0.79	3.3	2.9	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	55	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	55	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	36%	55	0.13	0.18	1.0	0.45	0.17	1	O(A)	4.7×10^{-7}	O(I)	0.00017	8.0×10^{-8}
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.8%	55	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	55	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	5.5%	55	0.16	0.14	0.98	0.25	0.19					N/A	N/A
1,4-Dioxane	123-91-1	18%	55	0.20	0.20	1.3	0.61	0.24	3.6	O(D-A)	0.0000077	O(C)	0.000068	1.9×10^{-6}
Ethanol	64-17-5	60%	55	20	33	200	82	28	100	L(IDEM)			0.00028	N/A
Ethyl Acetate	141-78-6	51%	55	0.23	0.24	0.86	0.72	0.29	0.37	ACGIH			0.00078	N/A
Ethylbenzene	100-41-4	51%	55	0.15	0.048	0.35	0.28	0.16	1	O(I)	0.0000025	C	0.00016	4.1×10^{-7}
p-Ethyltoluene	622-96-8	13%	55	0.21	1.1	7.6	0.39	0.47					N/A	N/A
Heptane	142-82-5	82%	55	0.29	0.19	1.0	0.57	0.33	0.43	ACGIH			0.00076	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	73%	55	0.33	0.17	0.84	0.70	0.39	0.7	O(I)			0.00055	N/A
Isopropanol	67-63-0	56%	55	0.47	0.54	2.3	1.8	0.62	7	C			0.000088	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	89%	55	1.7	1.3	6.3	4.7	2.0	5	I			0.0004	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	64%	55	0.26	0.25	1.0	0.74	0.32	3	O(I)			0.00011	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	84%	55	0.53	0.53	2.6	1.8	0.66	0.057	L(I)			0.012	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	55	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	87%	55	0.52	0.38	2.3	1.2	0.60	3	C			0.0002	N/A
Styrene	100-42-5	5.5%	55	0.047	0.032	0.21	0.18	0.051	1	O(I)			0.000051	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	9.1%	55	0.081	0.049	0.27	0.20	0.088	0.27	O(A)	0.0000059	O(C)	0.00033	5.2x10⁻⁷
Tetrahydrofuran (THF)	109-99-9	29%	55	0.11	0.18	0.83	0.50	0.15	0.035	R			0.0043	N/A
Toluene	108-88-3	87%	55	0.79	0.45	1.8	1.7	0.90	5	O(I)			0.00018	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	84%	55	0.50	0.12	0.61	0.61	0.53					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.8%	55	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	55	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.5%	55	0.059	0.031	0.21	0.14	0.064	0.6	O(C)	0.000002	O(C)	0.00011	1.3x10⁻⁷
Trichlorofluoromethane (F-11)	75-69-4	89%	55	0.90	0.38	1.5	1.4	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	3.6%	55	N/A	N/A	0.18	0.18	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	58%	55	0.17	0.14	0.64	0.41	0.20	0.007	L(R(p))			0.029	N/A
Vinyl Acetate	108-05-4	89%	55	3.5	4.6	25	14	4.9	0.2	O(I)			0.025	N/A
Vinyl Chloride	75-01-4	0%	55	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	55	N/A	N/A	0.12	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	53%	55	0.17	0.074	0.39	0.36	0.19	0.1	O(I)			0.0019	N/A
m+p-Xylenes	106-42-3	65%	55	0.42	0.20	1.1	0.87	0.48	0.1	O(I)			0.0048	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	97%	59	4.3	4.8	22	16	5.2	31	A			0.00017	N/A
Acrolein	107-02-8	88%	59	1.4	2.2	15	5.3	1.9	0.00002	O(I)			95	N/A
Benzene	71-43-2	100%	59	1.5	2.3	15	6.7	2.0	0.03	O(I)	0.0000078	O(I)	0.067	1.6×10^{-5}
Benzyl Chloride	100-44-7	0%	59	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	59	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	59	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	37%	59	0.29	0.19	0.93	0.78	0.33	0.005	O(I)			0.066	N/A
1,3-Butadiene	106-99-0	34%	59	0.066	0.082	0.35	0.24	0.086	0.002	O(I)	0.00003	O(I)	0.043	2.6×10^{-6}
Carbon Disulfide	75-15-0	8.5%	59	0.078	0.065	0.40	0.24	0.093	0.7	O(I)			0.00013	N/A
Carbon Tetrachloride	56-23-5	10%	59	0.33	0.063	0.63	0.52	0.34	0.19	O(D-A)	0.000015	O(I)	0.0018	5.1×10^{-6}
Chlorobenzene	108-90-7	0%	59	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.7%	59	N/A	N/A	0.16	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	59	N/A	N/A	0.12	0.12	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	97%	59	0.84	0.49	4.0	1.4	0.95	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	56%	59	0.19	0.22	1.6	0.48	0.24	6	I			0.00004	N/A
Dibromochloromethane	124-48-1	0%	59	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	59	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	59	N/A	N/A	0.13	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	1.7%	59	N/A	N/A	0.36	0.16	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	59	N/A	N/A	0.24	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	59	2.5	1.6	14	3.1	2.9	1.5	ACGIH			0.0019	N/A
1,1-Dichloroethane	75-34-3	0%	59	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	59	N/A	N/A	0.062	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	59	N/A	N/A	0.061	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	59	N/A	N/A	0.094	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	59%	59	0.18	0.069	0.52	0.29	0.20	1	O(A)	4.7×10^{-7}	O(I)	0.0002	9.3×10^{-8}
1,2-Dichloropropane	78-87-5	0%	59	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	59	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	59	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.7%	59	N/A	N/A	0.21	0.12	N/A					N/A	N/A
1,4-Dioxane	123-91-1	15%	59	0.15	0.023	0.25	0.22	0.15	3.6	O(D-A)	0.0000077	O(C)	0.000043	1.2×10^{-6}
Ethanol	64-17-5	95%	59	30	50	370	99	41	100	L(IDEM)			0.00041	N/A
Ethyl Acetate	141-78-6	19%	59	0.17	0.11	0.86	0.33	0.20	0.37	ACGIH			0.00054	N/A
Ethylbenzene	100-41-4	10%	59	0.23	0.038	0.43	0.28	0.23	1	O(I)	0.0000025	C	0.00023	5.9×10^{-7}
p-Ethyltoluene	622-96-8	5.1%	59	0.054	0.027	0.20	0.14	0.059					N/A	N/A
Heptane	142-82-5	88%	59	0.36	0.20	1.1	0.70	0.41	0.43	ACGIH			0.00094	N/A
Hexachlorobutadiene	87-68-3	0%	59	N/A	N/A	0.33	0.33	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	88%	59	0.30	0.26	1.4	1.0	0.35	0.7	O(I)			0.0005	N/A
Isopropanol	67-63-0	92%	59	0.71	0.49	2.5	1.7	0.81	7	C			0.00012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	93%	59	2.4	4.1	29	10	3.2	5	I			0.00065	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	42%	59	0.18	0.17	1.1	0.61	0.23	3	O(I)			0.000075	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	80%	59	0.32	0.27	1.4	1.1	0.38	0.057	L(I)			0.0066	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	59	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	92%	59	0.74	0.60	2.3	1.7	0.88	3	C			0.00029	N/A
Styrene	100-42-5	5.1%	59	N/A	N/A	0.13	0.13	N/A	1	O(I)			N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	59	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	3.4%	59	N/A	N/A	0.27	0.24	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	44%	59	0.41	0.30	2.0	1.1	0.47	0.035	R			0.013	N/A
Toluene	108-88-3	97%	59	0.79	0.64	3.8	2.1	0.94	5	O(I)			0.00019	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	97%	59	0.53	0.28	2.3	0.69	0.59					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	59	N/A	N/A	0.37	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	59	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	1.7%	59	N/A	N/A	0.82	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	59	N/A	N/A	0.19	0.19	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	100%	59	1.2	0.67	6.1	1.5	1.4	0.7	L(R(h))			0.002	N/A
1,3,5-Trimethylbenzene	108-67-8	0%	59	N/A	N/A	0.21	0.21	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	22%	59	0.17	0.069	0.49	0.33	0.18	0.007	L(R(p))			0.026	N/A
Vinyl Acetate	108-05-4	61%	59	1.8	2.9	16	9.2	2.4	0.2	O(I)			0.012	N/A
Vinyl Chloride	75-01-4	1.7%	59	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	59	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	20%	59	0.15	0.074	0.48	0.34	0.17	0.1	O(I)			0.0017	N/A
m+p-Xylenes	106-42-3	36%	59	0.40	0.27	1.5	0.95	0.48	0.1	O(I)			0.0048	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	94%	17	0.83	0.45	1.8	1.6	1.1	0.03	O(I)	0.0000078	O(I)	0.035	8.2×10^{-6}
Bromomethane	74-83-9	0%	17	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	17	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	17	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	17	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	17	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	71%	17	0.64	0.29	1.3	1.2	0.76	0.09	O(I)			0.0085	N/A
Cyclohexane	100-82-7	65%	17	0.31	0.12	0.55	0.55	0.38	6	I			0.000063	N/A
1,2-Dibromoethane	106-93-4	0%	17	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	17	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.9%	17	N/A	N/A	0.30	0.29	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	17	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	17	2.1	0.69	3.7	3.6	2.5	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	17	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	17	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	17	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	5.9%	17	N/A	N/A	0.59	0.49	N/A	1	O(A)	4.7×10^{-7}	O(I)	N/A	N/A
1,2-Dichloropropane	78-87-5	12%	17	1.1	0.18	1.6	1.3	1.1	0.004	O(I)	0.000019	O(R)	0.28	2.1×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	17	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	17	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	24%	17	3.0	0.26	3.9	3.5	3.1					N/A	N/A
Ethylbenzene	100-41-4	100%	17	0.52	0.34	1.6	1.3	0.69	1	O(I)	0.0000025	C	0.00069	1.7×10^{-6}
p-Ethyltoluene	622-96-8	94%	17	7.4	26	110	59	19					N/A	N/A
Heptane	142-82-5	100%	17	0.49	0.25	1.1	0.94	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	0%	17	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	17	0.92	0.46	1.7	1.7	1.1	0.7	O(I)			0.0016	N/A
Propene	115-07-1	100%	17	1.7	0.50	2.9	2.8	2.1	3	C			0.00069	N/A
Styrene	100-42-5	71%	17	0.94	1.4	6.0	4.0	1.5	1	O(I)			0.0015	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	17	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	17	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	17	3.0	1.5	5.5	5.3	3.7	5	O(I)			0.00073	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	12%	17	0.47	0.025	0.54	0.50	0.47					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	17	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	17	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	17	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	24%	17	1.1	0.54	3.0	2.4	1.4	0.6	O(C)	0.000002	O(C)	0.0023	2.8×10^{-6}
Trichlorofluoromethane (F-11)	75-69-4	53%	17	0.73	0.38	1.6	1.5	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	94%	17	5.9	20	85	45	15	0.006	L(P)			2.5	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	17	23	69	300	170	54	0.007	L(R(p))			7.7	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	17	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	17	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	76%	17	1.3	2.7	12	6.5	2.5	0.1	O(I)			0.025	N/A
m+p-Xylenes	106-42-3	100%	17	1.5	0.74	2.9	2.9	1.8	0.1	O(I)			0.018	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	94%	52	0.83	0.51	3.1	1.9	0.96	0.03	O(I)	0.0000078	O(I)	0.032	7.5×10^{-6}
Bromomethane	74-83-9	19%	52	0.05	0.058	0.35	0.35	0.066	0.005	O(I)			0.013	N/A
Carbon Tetrachloride	56-23-5	1.9%	52	N/A	N/A	0.69	0.69	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	7.7%	52	0.055	0.11	0.60	0.41	0.083	1	O(C)			0.000083	N/A
Chloroethane	75-00-3	21%	52	0.029	0.023	0.63	0.63	0.034	10	O(I)			0.0000034	N/A
Chloroform	67-66-3	0%	52	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	96%	52	1.0	0.29	2.1	1.4	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	50%	52	0.30	0.15	0.83	0.69	0.34	6	I			0.000056	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	52	N/A	N/A	0.30	0.30	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	9.6%	52	0.11	0.18	0.48	0.33	0.15	0.8	O(I)	0.000011	O(C)	0.00019	1.7×10^{-6}
o-Dichlorobenzene	95-50-1	1.9%	52	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	90%	52	2.4	0.89	3.5	3.3	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.8%	52	N/A	N/A	0.28	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	3.8%	52	N/A	N/A	0.51	0.51	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	12%	52	0.083	0.17	0.69	0.52	0.12	1	O(A)	4.7×10^{-7}	O(I)	0.00012	5.9×10^{-8}
1,2-Dichloropropane	78-87-5	23%	52	0.23	0.60	3.5	0.65	0.38	0.004	O(I)	0.000019	O(R)	0.095	7.2×10^{-6}
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	5.8%	52	N/A	N/A	0.77	0.77	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.9%	52	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	96%	52	0.43	0.27	1.5	0.91	0.52	1	O(I)	0.0000025	C	0.00052	1.3×10^{-6}
p-Ethyltoluene	622-96-8	63%	52	0.36	0.46	3.3	0.79	0.47					N/A	N/A
Heptane	142-82-5	92%	52	0.53	0.37	1.9	1.2	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	1.9%	52	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	90%	52	0.95	0.70	3.4	2.6	1.1	0.7	O(I)			0.0016	N/A
Propene	115-07-1	98%	52	1.3	0.96	5.3	3.3	1.5	3	C			0.0005	N/A
Styrene	100-42-5	60%	52	0.81	1.6	9.8	4.7	1.2	1	O(I)			0.0012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	12%	52	0.089	0.21	0.41	0.41	0.14			0.000058	O(I)	N/A	8.4×10^{-6}
Tetrachloroethene (PCE)	127-18-4	12%	52	0.088	0.13	0.75	0.75	0.12	0.27	O(A)	0.0000059	O(C)	0.00045	7.2×10^{-7}
Toluene	108-88-3	98%	52	3.3	4.5	33	8.3	4.5	5	O(I)			0.0009	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	48%	52	0.52	0.092	0.77	0.69	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	1.9%	52	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.44	0.44	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	1.9%	52	N/A	N/A	0.81	0.81	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	94%	52	1.2	0.36	2.1	1.8	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	58%	52	0.47	0.49	3.8	0.89	0.59	0.006	L(P)			0.098	N/A
1,2,4-Trimethylbenzene	95-63-6	96%	52	2.8	2.4	10	8.9	3.4	0.007	L(R(p))			0.48	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	13%	52	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	52	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	54%	52	1.3	3.2	20	7.4	2.0	0.1	O(I)			0.02	N/A
m+p-Xylenes	106-42-3	96%	52	1.4	0.91	4.6	3.4	1.6	0.1	O(I)			0.016	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	53	1.2	0.86	5.5	3.1	1.4	0.03	O(I)	0.0000078	O(I)	0.047	1.1×10^{-5}
Bromomethane	74-83-9	13%	53	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	5.7%	53	0.45	0.40	0.94	0.82	0.55	0.19	O(D-A)	0.000015	O(I)	0.0029	8.2×10^{-6}
Chlorobenzene	108-90-7	7.5%	53	0.092	0.23	1.1	0.74	0.15	1	O(C)			0.00015	N/A
Chloroethane	75-00-3	13%	53	N/A	N/A	0.24	0.24	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	3.8%	53	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	89%	53	0.82	0.37	1.7	1.6	0.91	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	53%	53	0.34	0.24	1.5	0.86	0.38	6	I			0.000063	N/A
1,2-Dibromoethane	106-93-4	0%	53	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	9.4%	53	0.19	0.38	0.60	0.48	0.28					N/A	N/A
p-Dichlorobenzene	106-46-7	5.7%	53	N/A	N/A	0.78	0.66	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	11%	53	0.14	0.33	0.78	0.48	0.22	0.6	R			0.00036	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	53	2.4	1.3	10	3.8	2.7	1.5	ACGIH			0.0018	N/A
1,1-Dichloroethane	75-34-3	5.7%	53	0.069	0.23	1.3	1.3	0.12	0.5	O(H)	0.0000016	O(C)	0.00024	1.9×10^{-7}
1,2-Dichloroethane	107-06-2	0%	53	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.9%	53	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	11%	53	N/A	N/A	0.38	0.38	N/A	1	O(A)	4.7×10^{-7}	O(I)	N/A	N/A
1,2-Dichloropropane	78-87-5	0%	53	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	53	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	53	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	53	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	53	0.42	0.26	1.6	0.95	0.48	1	O(I)	0.0000025	C	0.00048	1.2×10^{-6}
p-Ethyltoluene	622-96-8	79%	53	0.64	0.74	3.2	2.9	0.79					N/A	N/A
Heptane	142-82-5	100%	53	0.53	0.36	2.3	1.2	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	3.8%	53	0.16	0.39	1.1	1.1	0.26	0.09	O(P-C)	0.000022	O(I)	0.0029	5.6×10^{-6}
Hexane	110-54-3	100%	53	1.0	0.84	4.3	3.5	1.2	0.7	O(I)			0.0018	N/A
Propene	115-07-1	100%	53	1.7	0.83	3.9	3.3	1.9	3	C			0.00063	N/A
Styrene	100-42-5	51%	53	0.43	0.27	1.6	1.0	0.47	1	O(I)			0.00047	N/A
1,1,2,2-Tetrachloroethane	79-34-5	7.5%	53	0.12	0.45	0.48	0.48	0.23			0.000058	O(I)	N/A	1.3×10^{-5}
Tetrachloroethene (PCE)	127-18-4	1.9%	53	N/A	N/A	0.41	0.41	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	53	3.6	5.3	38	10	4.9	5	O(I)			0.00098	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	32%	53	0.54	0.034	0.69	0.61	0.55					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.8%	53	0.28	0.052	0.55	0.54	0.29	0.2	O(H)			0.0015	N/A
1,1,1-Trichloroethane	71-55-6	1.9%	53	N/A	N/A	0.98	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	7.5%	53	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	0%	53	N/A	N/A	0.32	0.32	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	89%	53	1.1	0.39	2.4	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	53%	53	0.54	0.59	2.9	2.4	0.69	0.006	L(P)			0.11	N/A
1,2,4-Trimethylbenzene	95-63-6	94%	53	1.5	1.1	4.4	4.1	1.7	0.007	L(R(p))			0.25	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	1.9%	53	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	53	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	55%	53	0.61	0.31	1.9	1.4	0.69	0.1	O(I)			0.0069	N/A
m+p-Xylenes	106-42-3	100%	53	1.3	0.82	5.7	2.6	1.4	0.1	O(I)			0.014	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	52	8.6	6.7	25	22	10	31	A			0.00033	N/A
Benzene	71-43-2	88%	52	0.70	0.35	1.9	1.3	0.80	0.03	O(I)	0.0000078	O(I)	0.027	6.2×10^{-6}
Benzyl Chloride	100-44-7	5.8%	52	0.067	0.17	0.93	0.46	0.11	0.00066	ACGIH	0.000049	O(C)	0.16	5.3×10^{-6}
Bromodichloromethane	75-27-4	5.8%	52	N/A	N/A	0.067	0.067	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	21%	52	0.05	0.07	0.43	0.43	0.066	0.005	O(I)			0.013	N/A
1,3-Butadiene	106-99-0	5.8%	52	0.10	0.29	0.60	0.60	0.17	0.002	O(I)	0.00003	O(I)	0.087	5.2×10^{-6}
Carbon Disulfide	75-15-0	33%	52	0.17	0.31	1.2	0.93	0.25	0.7	O(I)			0.00036	N/A
Carbon Tetrachloride	56-23-5	3.8%	52	N/A	N/A	0.063	0.063	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	52	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	17%	52	0.058	0.061	0.69	0.69	0.074	10	O(I)			0.0000074	N/A
Chloroform	67-66-3	15%	52	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	83%	52	1.4	2.5	15	7.8	2.0	0.09	O(I)			0.023	N/A
Cyclohexane	100-82-7	38%	52	0.25	1.2	8.3	0.34	0.55	6	I			0.000092	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.9%	52	N/A	N/A	0.82	0.84	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	13%	52	0.084	0.11	0.42	0.42	0.11	0.8	O(I)	0.000011	O(C)	0.00014	1.3×10^{-6}
o-Dichlorobenzene	95-50-1	3.8%	52	N/A	N/A	0.24	0.23	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	94%	52	4.2	12	88	12	6.9	1.5	ACGIH			0.0046	N/A
1,1-Dichloroethane	75-34-3	7.7%	52	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.8%	52	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	5.8%	52	N/A	N/A	0.079	0.075	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.9%	52	N/A	N/A	0.36	0.36	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	13%	52	0.073	0.14	0.52	0.38	0.11	1	O(A)	4.7×10^{-7}	O(I)	0.00011	5.1×10^{-8}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	52	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	5.8%	52	N/A	N/A	2.5	2.4	N/A					N/A	N/A
1,4-Dioxane	123-91-1	29%	52	1.7	3.0	6.1	5.4	2.4	3.6	O(D-A)	0.0000077	O(C)	0.00066	1.8×10^{-5}
Ethanol	64-17-5	96%	52	44	43	170	140	55	100	L(IDEM)			0.00055	N/A
Ethyl Acetate	141-78-6	73%	52	0.22	0.32	1.9	0.86	0.30	0.37	ACGIH			0.00081	N/A
Ethylbenzene	100-41-4	54%	52	0.17	0.16	0.56	0.52	0.21	1	O(I)	0.0000025	C	0.00021	5.3×10^{-7}
p-Ethyltoluene	622-96-8	23%	52	0.11	0.17	0.74	0.34	0.15					N/A	N/A
Heptane	142-82-5	71%	52	0.23	0.22	0.90	0.70	0.28	0.43	ACGIH			0.00066	N/A
Hexachlorobutadiene	87-68-3	3.8%	52	0.13	0.27	1.5	1.5	0.20	0.09	O(P-C)	0.000022	O(I)	0.0023	4.5×10^{-6}
Hexane	110-54-3	75%	52	0.46	0.35	1.4	1.2	0.53	0.7	O(I)			0.00075	N/A
Isopropanol	67-63-0	63%	52	1.2	1.4	5.5	5.2	1.5	7	C			0.00022	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	81%	52	1.3	1.2	5.3	4.1	1.7	5	I			0.00033	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	38%	52	0.23	0.53	3.3	2.0	0.36	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	35%	52	0.70	2.7	18	2.1	1.3	0.057	L(I)			0.023	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	3.8%	52	0.054	0.13	0.25	0.25	0.087	3	O(I)	2.6×10^{-7}	O(C)	0.000029	2.3×10^{-8}
Propene	115-07-1	98%	52	2.6	4.3	18	17	3.8	3	C			0.0013	N/A
Styrene	100-42-5	1.9%	52	N/A	N/A	0.64	0.29	N/A	1	O(I)			N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	15%	52	N/A	N/A	0.99	1.0	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	48%	52	0.13	0.16	0.91	0.41	0.17	0.035	R			0.0049	N/A
Toluene	108-88-3	96%	52	1.1	1.0	4.1	3.3	1.4	5	O(I)			0.00028	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	44%	52	0.56	0.077	0.92	0.73	0.58					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.9%	52	N/A	N/A	0.48	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	9.6%	52	N/A	N/A	1.0	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.8%	52	N/A	N/A	1.2	1.2	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	98%	52	1.0	0.34	2.0	1.7	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	21%	52	0.12	0.17	0.34	0.33	0.16	0.006	L(P)			0.027	N/A
1,2,4-Trimethylbenzene	95-63-6	21%	52	0.12	0.21	1.0	0.59	0.17	0.007	L(R(p))			0.025	N/A
Vinyl Chloride	75-01-4	7.7%	52	N/A	N/A	0.18	0.17	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	5.8%	52	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	21%	52	0.14	0.18	0.65	0.52	0.18	0.1	O(I)			0.0018	N/A
m+p-Xylenes	106-42-3	79%	52	0.43	0.43	1.8	1.6	0.56	0.1	O(I)			0.0056	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	32	9.8	3.1	16	16	11	31	A			0.00035	N/A
Benzene	71-43-2	94%	32	0.73	0.38	2.1	1.4	0.86	0.03	O(I)	0.0000078	O(I)	0.029	6.7x10⁻⁶
Benzyl Chloride	100-44-7	0%	32	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	3.1%	32	N/A	N/A	0.067	0.067	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	32	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	31%	32	0.05	0.054	0.42	0.43	0.066	0.005	O(I)			0.013	N/A
1,3-Butadiene	106-99-0	31%	32	0.051	0.057	0.67	0.66	0.069	0.002	O(I)	0.00003	O(I)	0.034	2.1x10⁻⁶
Carbon Disulfide	75-15-0	31%	32	0.31	0.18	0.53	0.47	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	0%	32	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	32	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	32	N/A	N/A	0.80	0.79	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	53%	32	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	100%	32	1.0	0.21	1.4	1.3	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	44%	32	0.11	0.096	0.34	0.31	0.14	6	I			0.000024	N/A
Dibromochloromethane	124-48-1	6.3%	32	N/A	N/A	0.26	0.26	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	32	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	16%	32	0.17	0.30	0.66	0.66	0.26					N/A	N/A
p-Dichlorobenzene	106-46-7	28%	32	0.17	0.23	0.72	0.72	0.24	0.8	O(I)	0.000011	O(C)	0.0003	2.6x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	32	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	32	2.6	0.69	3.7	3.5	2.8	1.5	ACGIH			0.0019	N/A
1,1-Dichloroethane	75-34-3	0%	32	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	32	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	31%	32	N/A	N/A	0.28	0.25	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	32	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	44%	32	0.10	0.094	0.37	0.38	0.13	1	O(A)	4.7x10⁻⁷	O(I)	0.00013	6.2x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	32	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	3.1%	32	N/A	N/A	0.045	0.045	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	32	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	16%	32	N/A	N/A	1.8	1.7	N/A					N/A	N/A
1,4-Dioxane	123-91-1	3.1%	32	N/A	N/A	0.072	0.072	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	32	49	19	93	88	55	100	L(IDEM)			0.00055	N/A
Ethyl Acetate	141-78-6	88%	32	0.17	0.097	0.43	0.36	0.20	0.37	ACGIH			0.00054	N/A
Ethylbenzene	100-41-4	66%	32	0.16	0.13	0.56	0.43	0.20	1	O(I)	0.0000025	C	0.0002	5.1x10⁻⁷
p-Ethyltoluene	622-96-8	19%	32	0.089	0.15	0.39	0.30	0.14					N/A	N/A
Heptane	142-82-5	72%	32	0.19	0.15	0.74	0.39	0.24	0.43	ACGIH			0.00056	N/A
Hexachlorobutadiene	87-68-3	0%	32	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	88%	32	0.32	0.23	1.2	0.77	0.39	0.7	O(I)			0.00055	N/A
Isopropanol	67-63-0	100%	32	1.1	0.96	4.5	3.2	1.4	7	C			0.00019	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	100%	32	1.6	0.62	3.0	2.8	1.7	5	I			0.00035	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	47%	32	0.098	0.12	170	170	0.14	3	O(I)			0.000046	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	34%	32	0.11	0.23	2.2	2.3	0.18	0.057	L(I)			0.0032	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	9.4%	32	N/A	N/A	0.28	0.28	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	100%	32	1.9	4.3	23	10	3.3	3	C			0.0011	N/A
Styrene	100-42-5	9.4%	32	0.098	0.37	0.29	0.29	0.21	1	O(I)			0.00021	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	32	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	44%	32	0.081	0.058	0.92	0.95	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	69%	32	0.11	0.074	0.30	0.27	0.13	0.035	R			0.0037	N/A
Toluene	108-88-3	100%	32	1.2	0.83	4.5	2.8	1.5	5	O(I)			0.00029	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	44%	32	0.57	0.092	0.92	0.70	0.60					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	32	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	22%	32	N/A	N/A	0.16	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	32	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	31%	32	0.11	0.18	0.91	0.91	0.17	0.6	O(C)	0.000002	O(C)	0.00028	3.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	32	1.2	0.15	1.6	1.4	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	16%	32	0.16	0.37	0.89	0.69	0.28	0.006	L(P)			0.046	N/A
1,2,4-Trimethylbenzene	95-63-6	0%	32	N/A	N/A	0.43	0.43	N/A	0.007	L(R(p))			N/A	N/A
Vinyl Chloride	75-01-4	0%	32	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	32	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	19%	32	0.18	0.20	0.52	0.48	0.24	0.1	O(I)			0.0024	N/A
m+p-Xylenes	106-42-3	91%	32	0.52	0.43	2.0	1.6	0.65	0.1	O(I)			0.0065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	87%	45	1.3	1.1	5.2	3.8	1.6	0.03	O(I)	0.0000078	O(I)	0.053	1.2×10^{-5}
Bromomethane	74-83-9	0%	45	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	45	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	45	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	45	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	45	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	82%	45	0.72	0.35	1.4	1.3	0.80	0.09	O(I)			0.0089	N/A
Cyclohexane	100-82-7	56%	45	0.96	1.7	8.6	6.2	1.4	6	I			0.00024	N/A
1,2-Dibromoethane	106-93-4	0%	45	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	45	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	0%	45	N/A	N/A	0.29	0.29	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	45	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	45	2.3	0.64	3.7	3.6	2.5	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	45	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	45	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	45	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	22%	45	0.38	0.076	0.66	0.59	0.38	1	O(A)	4.7×10^{-7}	O(I)	0.00038	1.8×10^{-7}
1,2-Dichloropropane	78-87-5	4.4%	45	1.4	0.055	1.7	1.2	1.4	0.004	O(I)	0.000019	O(R)	0.36	2.7×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	45	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	2.2%	45	N/A	N/A	0.045	0.045	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	13%	45	1.0	0.70	4.2	3.2	1.2					N/A	N/A
Ethylbenzene	100-41-4	100%	45	0.56	0.36	1.6	1.3	0.65	1	O(I)	0.0000025	C	0.00065	1.6×10^{-6}
p-Ethyltoluene	622-96-8	33%	45	0.30	0.22	1.3	0.74	0.35					N/A	N/A
Heptane	142-82-5	87%	45	0.74	0.74	3.4	2.8	0.90	0.43	ACGIH			0.0021	N/A
Hexachlorobutadiene	87-68-3	2.2%	45	N/A	N/A	0.11	0.11	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	45	2.5	3.0	16	8.1	3.3	0.7	O(I)			0.0048	N/A
Propene	115-07-1	100%	45	2.4	1.6	8.1	7.1	2.8	3	C			0.00092	N/A
Styrene	100-42-5	64%	45	0.64	0.68	3.4	2.3	0.85	1	O(I)			0.00085	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	45	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	45	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	45	5.3	6.8	30	27	7.2	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	47%	45	0.58	0.19	1.2	1.0	0.64					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	45	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	45	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	45	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	2.2%	45	N/A	N/A	1.0	0.86	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	82%	45	0.84	0.30	1.6	1.5	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	44%	45	0.49	0.93	6.4	1.1	0.74	0.006	L(P)			0.12	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	45	4.1	5.4	39	9.8	5.4	0.007	L(R(p))			0.77	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	45	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	45	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	51%	45	0.69	0.43	2.4	2.0	0.82	0.1	O(I)			0.0082	N/A
m+p-Xylenes	106-42-3	100%	45	1.7	1.4	7.1	4.3	2.1	0.1	O(I)			0.021	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	98%	46	1.4	1.6	10	4.5	1.9	0.03	O(I)	0.0000078	O(I)	0.063	1.5×10^{-5}
Bromomethane	74-83-9	30%	46	0.043	0.025	0.35	0.35	0.047	0.005	O(I)			0.0093	N/A
Carbon Tetrachloride	56-23-5	0%	46	N/A	N/A	0.69	0.69	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	46	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	20%	46	0.032	0.053	0.63	0.63	0.045	10	O(I)			0.0000045	N/A
Chloroform	67-66-3	4.3%	46	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	46	1.0	0.23	1.7	1.4	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	80%	46	0.72	0.69	3.7	2.1	0.89	6	I			0.00015	N/A
1,2-Dibromoethane	106-93-4	0%	46	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	6.5%	46	0.078	0.16	0.30	0.30	0.12					N/A	N/A
p-Dichlorobenzene	106-46-7	0%	46	N/A	N/A	0.24	0.24	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	2.2%	46	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	91%	46	2.1	0.94	3.3	3.3	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	2.2%	46	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	2.2%	46	N/A	N/A	0.45	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	8.7%	46	0.16	0.34	0.51	0.51	0.25	0.03	R			0.0083	N/A
Dichloromethane	75-09-2	15%	46	0.42	0.14	1.0	0.80	0.45	1	O(A)	4.7×10^{-7}	O(I)	0.00045	2.1×10^{-7}
1,2-Dichloropropane	78-87-5	33%	46	0.39	0.79	3.5	2.7	0.60	0.004	O(I)	0.000019	O(R)	0.15	1.1×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	46	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	8.7%	46	0.095	0.25	0.95	0.77	0.16	0.02	L(IDEM)	0.000004		0.0079	6.4×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	46	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	100%	46	0.82	1.3	9.2	2.5	1.2	1	O(I)	0.0000025	C	0.0012	2.9×10^{-6}
p-Ethyltoluene	622-96-8	57%	46	0.49	0.69	3.8	2.5	0.69					N/A	N/A
Heptane	142-82-5	100%	46	1.6	3.0	21	3.4	2.3	0.43	ACGIH			0.0054	N/A
Hexachlorobutadiene	87-68-3	2.2%	46	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	46	2.1	1.6	6.1	5.6	2.6	0.7	O(I)			0.0037	N/A
Propene	115-07-1	100%	46	2.1	1.9	8.9	7.4	2.6	3	C			0.00086	N/A
Styrene	100-42-5	67%	46	1.6	3.2	14	12	2.4	1	O(I)			0.0024	N/A
1,1,2,2-Tetrachloroethane	79-34-5	11%	46	0.096	0.23	0.41	0.41	0.16			0.000058	O(I)	N/A	9.2×10^{-6}
Tetrachloroethene (PCE)	127-18-4	6.5%	46	N/A	N/A	0.75	0.75	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	46	5.3	5.7	35	15	6.8	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	70%	46	0.70	0.17	1.0	1.0	0.74					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	46	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	46	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	8.7%	46	N/A	N/A	0.44	0.44	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	2.2%	46	N/A	N/A	0.81	0.81	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	93%	46	1.2	0.30	1.7	1.6	1.3	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	46%	46	0.54	0.79	4.2	3.0	0.79	0.006	L(P)			0.13	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	46	3.2	3.3	21	9.8	4.1	0.007	L(R(p))			0.59	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	4.3%	46	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	46	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	67%	46	2.2	5.2	26	19	3.5	0.1	O(I)			0.035	N/A
m+p-Xylenes	106-42-3	100%	46	1.8	1.3	6.2	4.8	2.2	0.1	O(I)			0.022	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	57	2.2	1.9	8.9	7.0	2.7	0.03	O(I)	0.0000078	O(I)	0.089	2.1×10^{-5}
Bromomethane	74-83-9	8.8%	57	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	1.8%	57	N/A	N/A	0.82	0.82	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	3.5%	57	0.069	0.17	0.18	0.18	0.11	1	O(C)			0.00011	N/A
Chloroethane	75-00-3	26%	57	0.048	0.11	0.29	0.24	0.071	10	O(I)			0.0000071	N/A
Chloroform	67-66-3	3.5%	57	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	88%	57	0.80	0.47	2.7	1.8	0.93	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	75%	57	0.93	0.93	3.9	3.4	1.1	6	I			0.00019	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	57	N/A	N/A	0.48	0.48	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	57	0.58	0.34	2.5	1.3	0.66	0.8	O(I)	0.000011	O(C)	0.00083	7.3×10^{-6}
o-Dichlorobenzene	95-50-1	0%	57	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	57	2.1	0.79	3.4	3.1	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	12%	57	0.085	0.30	1.3	1.3	0.15	0.5	O(H)	0.0000016	O(C)	0.00031	2.5×10^{-7}
1,2-Dichloroethane	107-06-2	5.3%	57	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	3.5%	57	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	28%	57	0.24	0.52	2.8	1.6	0.35	1	O(A)	4.7×10^{-7}	O(I)	0.00035	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	3.5%	57	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	57	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	57	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	57	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	100%	57	0.74	0.65	3.8	2.5	0.91	1	O(I)	0.0000025	C	0.00091	2.3×10^{-6}
p-Ethyltoluene	622-96-8	84%	57	0.54	0.47	2.9	1.7	0.69					N/A	N/A
Heptane	142-82-5	100%	57	1.4	1.3	5.4	4.5	1.7	0.43	ACGIH			0.004	N/A
Hexachlorobutadiene	87-68-3	0%	57	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	57	3.5	4.6	20	17	4.6	0.7	O(I)			0.0065	N/A
Propene	115-07-1	100%	57	4.0	5.0	28	19	5.0	3	C			0.0017	N/A
Styrene	100-42-5	51%	57	0.38	0.17	1.2	0.68	0.42	1	O(I)			0.00042	N/A
1,1,2,2-Tetrachloroethane	79-34-5	14%	57	0.12	0.29	0.48	0.48	0.19			0.000058	O(I)	N/A	1.1×10^{-5}
Tetrachloroethene (PCE)	127-18-4	1.8%	57	N/A	N/A	0.41	0.41	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	57	5.3	3.5	15	14	6.0	5	O(I)			0.0012	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	61%	57	0.51	0.13	0.69	0.69	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.8%	57	N/A	N/A	0.54	0.54	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	57	N/A	N/A	0.98	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	11%	57	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.3%	57	0.07	0.16	0.32	0.32	0.11	0.6	O(C)	0.000002	O(C)	0.00018	2.1×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	88%	57	1.0	0.32	1.9	1.6	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	53%	57	0.59	1.5	11	1.2	0.93	0.006	L(P)			0.16	N/A
1,2,4-Trimethylbenzene	95-63-6	95%	57	1.4	1.3	9.2	3.4	1.7	0.007	L(R(p))			0.25	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	3.5%	57	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.5%	57	0.059	0.15	0.24	0.24	0.095	0.2	O(I)			0.00048	N/A
o-Xylene	95-47-6	70%	57	0.82	0.48	2.5	2.0	0.91	0.1	O(I)			0.0091	N/A
m+p-Xylenes	106-42-3	100%	57	2.1	1.7	8.6	6.1	2.5	0.1	O(I)			0.025	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	56	26	24	120	93	31	31	A			0.001	N/A
Benzene	71-43-2	93%	56	1.1	1.1	7.0	3.8	1.4	0.03	O(I)	0.0000078	O(I)	0.048	1.1x10⁻⁵
Benzyl Chloride	100-44-7	7.1%	56	0.062	0.088	0.52	0.46	0.083	0.00066	ACGIH	0.000049	O(C)	0.13	4.1x10⁻⁶
Bromodichloromethane	75-27-4	18%	56	N/A	N/A	0.33	0.31	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	56	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	11%	56	0.047	0.062	0.42	0.43	0.058	0.005	O(I)			0.012	N/A
1,3-Butadiene	106-99-0	21%	56	0.082	0.14	0.60	0.60	0.11	0.002	O(I)	0.00003	O(I)	0.057	3.4x10⁻⁶
Carbon Disulfide	75-15-0	11%	56	0.16	0.47	2.8	0.47	0.28	0.7	O(I)			0.0004	N/A
Carbon Tetrachloride	56-23-5	0%	56	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	5.4%	56	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	7.1%	56	0.032	0.061	0.69	0.69	0.048	10	O(I)			0.0000048	N/A
Chloroform	67-66-3	14%	56	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	84%	56	1.5	2.5	14	6.4	2.1	0.09	O(I)			0.023	N/A
Cyclohexane	100-82-7	45%	56	0.27	0.34	1.7	1.1	0.34	6	I			0.000057	N/A
Dibromochloromethane	124-48-1	0%	56	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	56	N/A	N/A	0.82	0.84	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	1.8%	56	N/A	N/A	1.2	0.35	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	56	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	56	3.4	9.9	75	6.9	5.9	1.5	ACGIH			0.004	N/A
1,1-Dichloroethane	75-34-3	8.9%	56	N/A	N/A	0.12	0.11	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	56	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	56	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.8%	56	N/A	N/A	0.12	0.12	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	14%	56	0.30	1.8	12	0.45	0.73	1	O(A)	4.7x10⁻⁷	O(I)	0.00073	3.4x10⁻⁷
1,2-Dichloropropane	78-87-5	3.6%	56	N/A	N/A	0.046	0.046	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	56	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	7.1%	56	N/A	N/A	0.45	0.42	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	16%	56	N/A	N/A	3.5	3.3	N/A					N/A	N/A
1,4-Dioxane	123-91-1	1.8%	56	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	98%	56	88	82	300	250	100	100	L(IDEM)			0.001	N/A
Ethyl Acetate	141-78-6	61%	56	0.43	0.94	5.3	2.6	0.65	0.37	ACGIH			0.0018	N/A
Ethylbenzene	100-41-4	66%	56	0.27	0.30	1.2	1.0	0.34	1	O(I)	0.0000025	C	0.00034	8.5x10⁻⁷
p-Ethyltoluene	622-96-8	30%	56	0.20	0.12	0.59	0.49	0.23					N/A	N/A
Heptane	142-82-5	98%	56	0.57	0.57	3.3	1.8	0.70	0.43	ACGIH			0.0016	N/A
Hexachlorobutadiene	87-68-3	0%	56	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	95%	56	1.9	2.4	12	8.4	2.4	0.7	O(I)			0.0035	N/A
Isopropanol	67-63-0	77%	56	1.3	1.0	4.4	3.7	1.5	7	C			0.00022	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	98%	56	5.3	3.2	13	13	5.9	5	I			0.0012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	29%	56	0.37	0.66	3.4	2.3	0.53	3	O(I)			0.00018	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	41%	56	0.94	1.7	6.6	5.3	1.4	0.057	L(I)			0.024	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	20%	56	0.079	0.14	0.40	0.25	0.11	3	O(I)	2.6×10^{-7}	O(C)	0.000036	2.8×10^{-8}
Propene	115-07-1	95%	56	4.5	7.6	47	19	6.4	3	C			0.0021	N/A
Styrene	100-42-5	8.9%	56	0.068	0.098	0.29	0.29	0.089	1	O(I)			0.000089	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.8%	56	N/A	N/A	0.14	0.14	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	21%	56	0.10	0.17	1.0	1.0	0.14	0.27	O(A)	0.0000059	O(C)	0.00053	8.4×10^{-7}
Tetrahydrofuran (THF)	109-99-9	55%	56	0.17	0.41	2.6	0.86	0.26	0.035	R			0.0074	N/A
Toluene	108-88-3	98%	56	2.3	2.8	16	7.9	3.0	5	O(I)			0.0006	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	30%	56	0.56	0.067	0.84	0.72	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	56	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	8.9%	56	0.066	0.10	1.0	0.98	0.087	1	O(C)			0.000087	N/A
1,1,2-Trichloroethane	79-00-5	3.6%	56	N/A	N/A	0.22	0.21	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	3.6%	56	N/A	N/A	1.2	1.2	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	91%	56	0.96	0.26	1.6	1.4	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	25%	56	0.093	0.15	0.64	0.46	0.13	0.006	L(P)			0.022	N/A
1,2,4-Trimethylbenzene	95-63-6	29%	56	0.21	0.35	1.7	0.93	0.29	0.007	L(R(p))			0.041	N/A
Vinyl Chloride	75-01-4	7.1%	56	N/A	N/A	0.13	0.12	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	7.1%	56	N/A	N/A	0.12	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	18%	56	0.56	0.15	1.3	0.95	0.61	0.1	O(I)			0.0061	N/A
m+p-Xylenes	106-42-3	91%	56	0.82	0.87	3.6	3.2	1.0	0.1	O(I)			0.01	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	54	21	15	64	52	24	31	A			0.00077	N/A
Benzene	71-43-2	100%	54	1.2	0.77	4.7	2.6	1.4	0.03	O(I)	0.0000078	O(I)	0.046	1.1×10^{-5}
Benzyl Chloride	100-44-7	0%	54	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	33%	54	N/A	N/A	0.47	0.40	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	54	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	28%	54	0.066	0.10	0.42	0.43	0.089	0.005	O(I)			0.018	N/A
1,3-Butadiene	106-99-0	63%	54	0.18	0.29	1.4	1.0	0.27	0.002	O(I)	0.00003	O(I)	0.13	8.0×10^{-6}
Carbon Disulfide	75-15-0	61%	54	0.14	0.093	0.45	0.47	0.16	0.7	O(I)			0.00024	N/A
Carbon Tetrachloride	56-23-5	3.7%	54	N/A	N/A	0.13	0.13	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	54	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	54	N/A	N/A	0.80	0.79	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	31%	54	N/A	N/A	0.098	0.098	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	94%	54	1.1	0.95	6.4	3.3	1.3	0.09	O(I)			0.014	N/A
Cyclohexane	100-82-7	72%	54	0.30	0.31	1.4	0.93	0.38	6	I			0.000063	N/A
Dibromochloromethane	124-48-1	1.9%	54	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	54	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	9.3%	54	0.20	0.43	1.4	0.35	0.31					N/A	N/A
p-Dichlorobenzene	106-46-7	13%	54	0.24	0.41	1.2	0.51	0.34	0.8	O(I)	0.000011	O(C)	0.00043	3.8×10^{-6}
o-Dichlorobenzene	95-50-1	0%	54	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	78%	54	2.3	0.74	3.3	3.3	2.5	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	54	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	5.6%	54	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	3.7%	54	N/A	N/A	0.04	0.04	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	11%	54	N/A	N/A	0.04	0.04	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	65%	54	0.19	0.19	0.80	0.73	0.24	1	O(A)	4.7×10^{-7}	O(I)	0.00024	1.1×10^{-7}
1,2-Dichloropropane	78-87-5	17%	54	N/A	N/A	0.23	0.22	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.9%	54	N/A	N/A	0.045	0.045	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	19%	54	N/A	N/A	0.27	0.26	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	39%	54	0.077	0.046	1.8	1.7	0.091					N/A	N/A
1,4-Dioxane	123-91-1	7.4%	54	N/A	N/A	0.61	0.61	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	54	71	47	230	180	82	100	L(IDEM)			0.00082	N/A
Ethyl Acetate	141-78-6	93%	54	0.65	0.90	3.3	3.2	0.86	0.37	ACGIH			0.0023	N/A
Ethylbenzene	100-41-4	85%	54	0.31	0.24	1.2	0.87	0.37	1	O(I)	0.0000025	C	0.00037	9.2×10^{-7}
p-Ethyltoluene	622-96-8	33%	54	0.11	0.16	0.74	0.44	0.15					N/A	N/A
Heptane	142-82-5	91%	54	0.49	0.45	2.1	1.4	0.57	0.43	ACGIH			0.0013	N/A
Hexachlorobutadiene	87-68-3	0%	54	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	54	1.8	2.0	11	5.6	2.3	0.7	O(I)			0.0032	N/A
Isopropanol	67-63-0	87%	54	0.81	0.74	3.4	2.7	0.98	7	C			0.00014	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	54	2.0	0.94	4.8	4.1	2.3	5	I			0.00045	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	39%	54	0.23	0.40	170	170	0.33	3	O(I)			0.00011	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	44%	54	0.23	0.28	2.2	2.3	0.30	0.057	L(I)			0.0053	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	26%	54	0.083	0.10	0.29	0.28	0.10	3	O(I)	2.6×10^{-7}	O(C)	0.000035	2.7×10^{-8}
Propene	115-07-1	96%	54	3.4	6.7	34	22	5.0	3	C			0.0017	N/A
Styrene	100-42-5	9.3%	54	0.081	0.15	0.38	0.29	0.12	1	O(I)			0.00012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	54	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	43%	54	0.10	0.10	0.92	0.95	0.13	0.27	O(A)	0.0000059	O(C)	0.00048	7.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	94%	54	0.24	0.29	1.3	1.0	0.32	0.035	R			0.0093	N/A
Toluene	108-88-3	100%	54	2.7	2.1	10	7.5	3.2	5	O(I)			0.00064	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	37%	54	0.34	0.39	0.77	0.69	0.44					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	54	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	9.3%	54	N/A	N/A	0.27	0.26	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	22%	54	N/A	N/A	0.22	0.22	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	28%	54	0.091	0.12	0.89	0.91	0.12	0.6	O(C)	0.000002	O(C)	0.00021	2.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	98%	54	1.2	0.31	2.2	1.9	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	26%	54	0.11	0.14	0.59	0.46	0.15	0.006	L(P)			0.025	N/A
1,2,4-Trimethylbenzene	95-63-6	24%	54	0.18	0.26	0.64	0.54	0.24	0.007	L(R(p))			0.034	N/A
Vinyl Chloride	75-01-4	0%	54	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	11%	54	N/A	N/A	0.079	0.079	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	46%	54	0.26	0.29	1.0	0.91	0.33	0.1	O(I)			0.0033	N/A
m+p-Xylenes	106-42-3	93%	54	0.95	0.91	4.3	3.0	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	92%	61	13	12	44	40	16	31	A			0.00051	N/A
Benzene	71-43-2	97%	61	0.99	0.70	4.1	2.5	1.1	0.03	O(I)	0.0000078	O(I)	0.038	9.0×10^{-6}
Benzyl Chloride	100-44-7	15%	61	0.67	0.46	2.8	1.9	0.78	0.00066	ACGIH	0.000049	O(C)	1.2	3.8×10^{-5}
Bromodichloromethane	75-27-4	44%	61	0.10	0.094	0.71	0.74	0.12			0.000037	C	N/A	4.5×10^{-6}
Bromoform	75-25-2	0%	61	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	44%	61	0.34	0.47	1.5	1.4	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	18%	61	0.62	4.0	29	1.1	1.5	0.002	O(I)	0.00003	O(I)	0.75	4.5×10^{-5}
Carbon Disulfide	75-15-0	34%	61	0.087	0.093	0.28	0.28	0.11	0.7	O(I)			0.00015	N/A
Carbon Tetrachloride	56-23-5	1.6%	61	N/A	N/A	0.75	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	8.2%	61	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	3.3%	61	0.04	0.10	0.45	0.45	0.063	10	O(I)			0.0000063	N/A
Chloroform	67-66-3	9.8%	61	N/A	N/A	0.50	0.49	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	79%	61	0.39	0.29	1.5	0.89	0.45	0.09	O(I)			0.005	N/A
Cyclohexane	100-82-7	59%	61	0.31	0.24	1.2	0.89	0.38	6	I			0.000063	N/A
Dibromochloromethane	124-48-1	9.8%	61	0.15	0.23	0.97	0.94	0.20			0.000027	C	N/A	5.5×10^{-6}
1,2-Dibromoethane	106-93-4	0%	61	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	9.8%	61	0.19	0.53	0.63	0.60	0.31					N/A	N/A
p-Dichlorobenzene	106-46-7	9.8%	61	0.18	0.49	1.0	1.0	0.29	0.8	O(I)	0.000011	O(C)	0.00036	3.2×10^{-6}
o-Dichlorobenzene	95-50-1	8.2%	61	0.22	0.72	0.96	0.84	0.38	0.6	R			0.00063	N/A
Dichlorodifluoromethane (F-12)	75-71-8	79%	61	1.4	0.64	2.8	2.5	1.5	1.5	ACGIH			0.00099	N/A
1,1-Dichloroethane	75-34-3	4.9%	61	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	23%	61	0.045	0.03	0.40	0.40	0.049	2.4	O(A)	0.000026	O(I)	0.00002	1.3×10^{-6}
t-1,2-Dichloroethene	156-60-5	9.8%	61	N/A	N/A	0.40	0.40	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	31%	61	0.059	0.059	0.41	0.40	0.071	0.03	R			0.0024	N/A
Dichloromethane	75-09-2	31%	61	0.14	0.25	1.5	0.62	0.19	1	O(A)	4.7×10^{-7}	O(I)	0.00019	9.0×10^{-8}
1,2-Dichloropropane	78-87-5	9.8%	61	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	3.3%	61	0.091	0.35	0.41	0.41	0.17					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	8.2%	61	0.073	0.27	0.47	0.45	0.13	0.02	L(IDEM)	0.000004		0.0066	5.3×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	36%	61	0.40	0.69	3.2	1.8	0.55					N/A	N/A
1,4-Dioxane	123-91-1	25%	61	0.11	0.21	0.60	0.61	0.15	3.6	O(D-A)	0.0000077	O(C)	0.000043	1.2×10^{-6}
Ethanol	64-17-5	90%	61	31	35	180	99	39	100	L(IDEM)			0.00039	N/A
Ethyl Acetate	141-78-6	77%	61	0.50	0.65	3.5	1.8	0.65	0.37	ACGIH			0.0018	N/A
Ethylbenzene	100-41-4	59%	61	0.32	0.33	1.7	1.0	0.39	1	O(I)	0.0000025	C	0.00039	9.9×10^{-7}
p-Ethyltoluene	622-96-8	39%	61	0.23	0.41	1.8	1.4	0.32					N/A	N/A
Heptane	142-82-5	89%	61	0.45	0.34	1.4	1.3	0.49	0.43	ACGIH			0.0011	N/A
Hexachlorobutadiene	87-68-3	0%	61	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	61	1.4	1.5	9.1	4.6	1.8	0.7	O(I)			0.0026	N/A
Isopropanol	67-63-0	57%	61	0.52	0.69	2.6	2.3	0.69	7	C			0.000098	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	90%	61	2.1	1.8	7.8	7.1	2.5	5	I			0.0005	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Methyl Isobutyl Ketone (MIBK)	108-10-1	23%	61	0.11	0.21	0.37	0.37	0.16	3	O(I)			0.000053	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	34%	61	0.32	1.2	8.0	1.5	0.61	0.057	L(I)			0.011	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	30%	61	0.047	0.065	0.41	0.40	0.061	3	O(I)	2.6×10^{-7}	O(C)	0.00002	1.6×10^{-8}
Propene	115-07-1	93%	61	1.1	0.91	5.2	3.1	1.3	3	C			0.00044	N/A
Styrene	100-42-5	11%	61	0.10	0.35	0.66	0.68	0.18	1	O(I)			0.00018	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	61	N/A	N/A	0.70	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	16%	61	0.088	0.11	0.79	0.81	0.12	0.27	O(A)	0.0000059	O(C)	0.00043	6.8×10^{-7}
Tetrahydrofuran (THF)	109-99-9	72%	61	0.16	0.32	1.9	1.1	0.23	0.035	R			0.0066	N/A
Toluene	108-88-3	98%	61	1.7	1.3	6.4	4.9	2.0	5	O(I)			0.00039	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	23%	61	0.49	0.38	0.84	0.84	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	61	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	9.8%	61	0.15	0.28	0.54	0.54	0.22	1	O(C)			0.00022	N/A
1,1,2-Trichloroethane	79-00-5	3.3%	61	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	21%	61	N/A	N/A	0.55	0.54	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	84%	61	0.84	0.28	1.7	1.3	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	34%	61	0.16	0.28	0.79	0.64	0.22	0.006	L(P)			0.036	N/A
1,2,4-Trimethylbenzene	95-63-6	31%	61	0.16	0.23	0.93	0.64	0.21	0.007	L(R(p))			0.03	N/A
Vinyl Chloride	75-01-4	8.2%	61	0.16	1.2	7.5	0.061	0.41	0.1	O(I)	0.0000088	O(I)	0.0041	3.6×10^{-6}
Vinylidene Chloride	75-35-4	18%	61	0.048	0.051	0.36	0.36	0.059	0.2	O(I)			0.0003	N/A
o-Xylene	95-47-6	26%	61	0.29	0.61	2.6	1.3	0.43	0.1	O(I)			0.0043	N/A
m+p-Xylenes	106-42-3	82%	61	0.91	1.3	6.9	3.8	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	97%	58	18	22	140	55	23	31	A			0.00074	N/A
Benzene	71-43-2	93%	58	1.3	0.96	5.2	3.1	1.5	0.03	O(I)	0.0000078	O(I)	0.05	1.2×10^{-5}
Benzyl Chloride	100-44-7	43%	58	1.7	1.2	5.7	3.6	2.0	0.00066	ACGIH	0.000049	O(C)	3.0	9.6×10^{-5}
Bromodichloromethane	75-27-4	19%	58	0.13	0.21	0.36	0.36	0.17			0.000037	C	N/A	6.4×10^{-6}
Bromoform	75-25-2	0%	58	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	43%	58	0.54	0.27	1.7	1.4	0.58	0.005	O(I)			0.12	N/A
1,3-Butadiene	106-99-0	34%	58	0.093	0.14	0.80	0.40	0.12	0.002	O(I)	0.00003	O(I)	0.062	3.7×10^{-6}
Carbon Disulfide	75-15-0	36%	58	0.29	0.40	1.5	1.3	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	12%	58	0.23	0.16	1.0	0.69	0.27	0.19	O(D-A)	0.000015	O(I)	0.0014	4.1×10^{-6}
Chlorobenzene	108-90-7	0%	58	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	5.2%	58	N/A	N/A	0.45	0.45	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	16%	58	0.054	0.054	0.12	0.12	0.068	0.098	O(A)	0.000023	I	0.0007	1.6×10^{-6}
Chloromethane	74-87-3	74%	58	0.60	0.58	2.8	1.8	0.74	0.09	O(I)			0.0082	N/A
Cyclohexane	100-82-7	93%	58	1.2	1.7	9.9	4.1	1.6	6	I			0.00027	N/A
Dibromochloromethane	124-48-1	1.7%	58	N/A	N/A	0.43	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	58	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	19%	58	0.066	0.056	0.29	0.29	0.078					N/A	N/A
p-Dichlorobenzene	106-46-7	14%	58	0.11	0.25	0.36	0.35	0.17	0.8	O(I)	0.000011	O(C)	0.00021	1.9×10^{-6}
o-Dichlorobenzene	95-50-1	1.7%	58	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	81%	58	1.8	1.2	4.2	3.9	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	58	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	8.6%	58	N/A	N/A	0.27	0.27	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	14%	58	0.079	0.12	0.64	0.13	0.11	0.06	R			0.0018	N/A
c-1,2-Dichloroethene	156-59-2	12%	58	0.083	0.16	0.36	0.19	0.12	0.03	R			0.004	N/A
Dichloromethane	75-09-2	45%	58	0.29	0.34	1.5	1.0	0.38	1	O(A)	4.7×10^{-7}	O(I)	0.00038	1.8×10^{-7}
1,2-Dichloropropane	78-87-5	6.9%	58	1.7	9.7	47	12	3.9	0.004	O(I)	0.000019	O(R)	0.97	7.4×10^{-5}
c-1,3-Dichloropropene	10061-01-3	1.7%	58	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	12%	58	0.073	0.12	0.64	0.20	0.10	0.02	L(IDEM)	0.000004		0.005	4.0×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	33%	58	0.57	0.84	3.6	2.4	0.77					N/A	N/A
1,4-Dioxane	123-91-1	29%	58	0.12	0.31	0.85	0.86	0.19	3.6	O(D-A)	0.0000077	O(C)	0.000053	1.5×10^{-6}
Ethanol	64-17-5	88%	58	19	29	160	93	25	100	L(IDEM)			0.00025	N/A
Ethyl Acetate	141-78-6	83%	58	0.83	1.3	8.6	2.8	1.1	0.37	ACGIH			0.003	N/A
Ethylbenzene	100-41-4	86%	58	0.36	0.33	2.0	1.1	0.43	1	O(I)	0.0000025	C	0.00043	1.1×10^{-6}
p-Ethyltoluene	622-96-8	62%	58	0.32	0.40	2.6	1.0	0.41					N/A	N/A
Heptane	142-82-5	88%	58	0.53	0.53	2.6	1.6	0.66	0.43	ACGIH			0.0015	N/A
Hexachlorobutadiene	87-68-3	10%	58	0.63	1.7	1.1	1.1	1.0	0.09	O(P-C)	0.000022	O(I)	0.011	2.2×10^{-5}
Hexane	110-54-3	91%	58	1.7	1.7	9.5	5.3	2.1	0.7	O(I)			0.003	N/A
Isopropanol	67-63-0	71%	58	0.84	1.0	5.0	3.7	1.1	7	C			0.00015	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	97%	58	4.1	4.4	28	13	5.0	5	I			0.001	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	43%	58	0.33	0.53	2.4	1.9	0.45	3	O(I)			0.00015	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	40%	58	0.36	0.45	2.5	1.4	0.45	0.057	L(I)			0.0079	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	14%	58	0.072	0.11	0.29	0.30	0.097	3	O(I)	2.6×10^{-7}	O(C)	0.000032	2.5×10^{-8}
Propene	115-07-1	93%	58	1.9	1.6	9.7	4.3	2.2	3	C			0.00075	N/A
Styrene	100-42-5	21%	58	0.098	0.14	0.72	0.35	0.13	1	O(I)			0.00013	N/A
1,1,2,2-Tetrachloroethane	79-34-5	16%	58	1.4	5.1	7.4	7.5	2.5			0.000058	O(I)	N/A	1.5×10^{-4}
Tetrachloroethene (PCE)	127-18-4	29%	58	0.12	0.14	0.34	0.30	0.16	0.27	O(A)	0.0000059	O(C)	0.00058	9.2×10^{-7}
Tetrahydrofuran (THF)	109-99-9	78%	58	0.47	0.59	2.5	2.2	0.62	0.035	R			0.018	N/A
Toluene	108-88-3	88%	58	2.1	2.4	14	7.2	2.7	5	O(I)			0.00054	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	57%	58	0.41	0.29	1.1	0.84	0.48					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	6.9%	58	0.47	1.0	0.71	0.69	0.69	0.2	O(H)			0.0034	N/A
1,1,1-Trichloroethane	71-55-6	29%	58	0.17	0.11	0.27	0.27	0.20	1	O(C)			0.0002	N/A
1,1,2-Trichloroethane	79-00-5	5.2%	58	0.093	0.32	0.41	0.41	0.16	0.4	O(P-C)	0.000016	O(I)	0.00041	2.6×10^{-6}
Trichloroethene (TCE)	79-01-6	24%	58	0.13	0.19	0.48	0.31	0.18	0.6	O(C)	0.000002	O(C)	0.0003	3.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	81%	58	0.96	0.56	2.4	2.0	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	19%	58	0.16	0.33	1.9	1.1	0.24	0.006	L(P)			0.039	N/A
1,2,4-Trimethylbenzene	95-63-6	52%	58	0.59	0.54	4.2	1.5	0.74	0.007	L(R(p))			0.11	N/A
Vinyl Chloride	75-01-4	6.9%	58	0.044	0.18	1.0	0.22	0.082	0.1	O(I)	0.0000088	O(I)	0.00082	7.2×10^{-7}
Vinylidene Chloride	75-35-4	12%	58	0.044	0.055	0.62	0.63	0.059	0.2	O(I)			0.0003	N/A
o-Xylene	95-47-6	36%	58	0.28	0.43	2.5	1.3	0.38	0.1	O(I)			0.0038	N/A
m+p-Xylenes	106-42-3	95%	58	0.95	1.1	7.5	3.2	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	55	23	22	100	86	29	31	A			0.00092	N/A
Acrolein	107-02-8	100%	23	3.9	3.7	18	12	5.3	0.00002	O(I)			260	N/A
Benzene	71-43-2	98%	55	1.7	1.2	5.3	4.5	2.0	0.03	O(I)	0.0000078	O(I)	0.066	1.5×10^{-5}
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	5.5%	55	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	35%	55	0.22	0.37	1.6	1.4	0.31	0.005	O(I)			0.061	N/A
1,3-Butadiene	106-99-0	42%	55	0.14	0.19	1.1	0.53	0.19	0.002	O(I)	0.00003	O(I)	0.093	5.6×10^{-6}
Carbon Disulfide	75-15-0	33%	55	0.47	0.50	2.0	1.9	0.59	0.7	O(I)			0.00084	N/A
Carbon Tetrachloride	56-23-5	13%	55	0.088	0.11	0.31	0.25	0.11	0.19	O(D-A)	0.000015	O(I)	0.0006	1.7×10^{-6}
Chlorobenzene	108-90-7	1.8%	55	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	22%	55	0.048	0.058	0.11	0.10	0.061	10	O(I)			0.0000061	N/A
Chloroform	67-66-3	16%	55	0.063	0.098	0.30	0.30	0.088	0.098	O(A)	0.000023	I	0.0009	2.0×10^{-6}
Chloromethane	74-87-3	100%	55	0.87	0.27	1.6	1.4	0.93	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	80%	55	0.48	0.65	4.0	1.8	0.65	6	I			0.00011	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	9.1%	55	0.11	0.22	0.96	0.36	0.17					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	55	0.13	0.25	0.84	0.56	0.19	0.8	O(I)	0.000011	O(C)	0.00024	2.1×10^{-6}
o-Dichlorobenzene	95-50-1	1.8%	55	N/A	N/A	1.1	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	55	2.2	0.69	3.6	3.5	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	11%	55	0.049	0.065	0.15	0.15	0.061	2.4	O(A)	0.000026	O(I)	0.000025	1.6×10^{-6}
t-1,2-Dichloroethene	156-60-5	0%	55	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	55	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	38%	55	0.30	0.35	2.1	1.0	0.38	1	O(A)	4.7×10^{-7}	O(I)	0.00038	1.8×10^{-7}
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	55	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	55	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.6%	55	0.15	0.84	4.6	2.1	0.35					N/A	N/A
1,4-Dioxane	123-91-1	16%	55	0.14	0.29	1.2	0.54	0.21	3.6	O(D-A)	0.0000077	O(C)	0.000058	1.6×10^{-6}
Ethanol	64-17-5	100%	55	41	41	230	130	50	100	L(IDEM)			0.0005	N/A
Ethyl Acetate	141-78-6	87%	55	0.94	1.1	5.0	3.5	1.2	0.37	ACGIH			0.0032	N/A
Ethylbenzene	100-41-4	89%	55	0.35	0.23	1.2	0.87	0.40	1	O(I)	0.0000025	C	0.0004	1.0×10^{-6}
p-Ethyltoluene	622-96-8	62%	55	0.35	0.49	2.9	1.6	0.46					N/A	N/A
Heptane	142-82-5	93%	55	0.86	0.86	4.5	3.4	1.1	0.43	ACGIH			0.0025	N/A
Hexachlorobutadiene	87-68-3	1.8%	55	N/A	N/A	0.38	0.39	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	55	2.3	2.7	12	9.2	2.9	0.7	O(I)			0.0042	N/A
Isopropanol	67-63-0	100%	55	1.8	1.5	6.9	6.2	2.1	7	C			0.00031	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	100%	55	5.9	6.5	28	23	7.4	5	I			0.0015	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	20%	55	0.30	0.82	5.4	1.3	0.49	3	O(I)			0.00016	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	25%	55	0.74	1.4	5.2	4.5	1.1	0.057	L(I)			0.019	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	7.3%	55	0.072	0.12	0.13	0.13	0.097	3	O(I)	2.6×10^{-7}	O(C)	0.000032	2.5×10^{-8}
Propene	115-07-1	100%	55	3.1	3.1	20	8.6	3.8	3	C			0.0013	N/A
Styrene	100-42-5	16%	55	0.12	0.37	0.60	0.42	0.20	1	O(I)			0.0002	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	9.1%	55	0.11	0.22	0.33	0.33	0.16	0.27	O(A)	0.0000059	O(C)	0.0006	9.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	38%	55	0.12	0.27	1.8	0.44	0.19	0.035	R			0.0053	N/A
Toluene	108-88-3	100%	55	2.1	1.4	5.7	5.7	2.4	5	O(I)			0.00048	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	62%	55	0.52	0.14	0.77	0.77	0.55					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	16%	55	0.11	0.15	0.22	0.22	0.15	1	O(C)			0.00015	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	55	N/A	N/A	2.1	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	20%	55	0.081	0.086	0.21	0.18	0.10	0.6	O(C)	0.000002	O(C)	0.00017	2.0×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	95%	55	1.1	0.33	1.7	1.5	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	9.1%	55	0.40	0.031	0.54	0.49	0.41	0.006	L(P)			0.068	N/A
1,2,4-Trimethylbenzene	95-63-6	55%	55	0.54	0.33	1.8	1.5	0.64	0.007	L(R(p))			0.091	N/A
Vinyl Acetate	108-05-4	100%	19	4.2	4.2	16	13	6.0	0.2	O(I)			0.03	N/A
Vinyl Chloride	75-01-4	0%	55	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	55	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	27%	55	0.34	0.26	1.4	0.95	0.40	0.1	O(I)			0.004	N/A
m+p-Xylenes	106-42-3	91%	55	0.78	0.74	3.9	2.5	0.95	0.1	O(I)			0.0095	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	55	12	10	45	36	14	31	A			0.00045	N/A
Acrolein	107-02-8	83%	46	2.3	3.4	16	12	3.2	0.00002	O(I)			160	N/A
Benzene	71-43-2	98%	55	1.2	0.77	3.7	2.9	1.4	0.03	O(I)	0.0000078	O(I)	0.048	1.1x10⁻⁵
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	5.5%	55	0.22	1.1	6.7	0.32	0.48			0.000037	C	N/A	1.8x10⁻⁵
Bromoform	75-25-2	1.8%	55	N/A	N/A	0.72	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	1.8%	55	N/A	N/A	36	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	11%	55	0.35	1.1	7.6	0.29	0.62	0.002	O(I)	0.00003	O(I)	0.31	1.9x10⁻⁵
Carbon Disulfide	75-15-0	38%	55	0.21	0.65	4.7	0.53	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	62%	55	0.34	0.82	6.1	0.50	0.53	0.19	O(D-A)	0.000015	O(I)	0.0028	8.0x10⁻⁶
Chlorobenzene	108-90-7	1.8%	55	N/A	N/A	1.3	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.8%	55	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	13%	55	0.098	0.35	2.2	0.15	0.18	0.098	O(A)	0.000023	I	0.0018	4.2x10⁻⁶
Chloromethane	74-87-3	95%	55	0.84	0.35	1.7	1.4	0.93	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	84%	55	0.38	0.45	3.4	0.76	0.48	6	I			0.00008	N/A
Dibromochloromethane	124-48-1	1.8%	55	N/A	N/A	5.4	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	1.8%	55	N/A	N/A	1.4	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.5%	55	0.096	0.30	1.9	0.13	0.17					N/A	N/A
p-Dichlorobenzene	106-46-7	65%	55	0.29	0.43	2.1	1.5	0.39	0.8	O(I)	0.000011	O(C)	0.00049	4.3x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	93%	55	2.0	0.74	3.6	2.8	2.2	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	1.8%	55	N/A	N/A	1.3	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.6%	55	0.089	0.53	2.8	0.19	0.21	2.4	O(A)	0.000026	O(I)	0.000088	5.5x10⁻⁶
t-1,2-Dichloroethene	156-60-5	3.6%	55	0.25	2.1	12	0.17	0.75	0.06	R			0.013	N/A
c-1,2-Dichloroethene	156-59-2	1.8%	55	N/A	N/A	1.6	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	58%	55	0.52	2.0	15	0.62	1.0	1	O(A)	4.7x10⁻⁷	O(I)	0.001	4.7x10⁻⁷
1,2-Dichloropropane	78-87-5	1.8%	55	N/A	N/A	7.1	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.8%	55	N/A	N/A	5.3	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.6%	55	1.1	0.64	4.4	0.59	1.3	0.02	L(IDEM)	0.000004		0.066	5.3x10⁻⁶
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	55	N/A	N/A	1.2	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	16%	55	0.32	0.86	5.9	1.4	0.50	3.6	O(D-A)	0.0000077	O(C)	0.00014	3.9x10⁻⁶
Ethanol	64-17-5	65%	55	41	100	780	120	66	100	L(IDEM)			0.00066	N/A
Ethyl Acetate	141-78-6	85%	55	0.76	0.86	4.9	2.6	0.97	0.37	ACGIH			0.0026	N/A
Ethylbenzene	100-41-4	91%	55	0.33	0.20	0.91	0.74	0.38	1	O(I)	0.0000025	C	0.00038	9.4x10⁻⁷
p-Ethyltoluene	622-96-8	27%	55	0.18	0.11	0.84	0.31	0.21					N/A	N/A
Heptane	142-82-5	96%	55	0.74	0.45	2.5	1.7	0.86	0.43	ACGIH			0.002	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	55	1.7	1.4	5.6	4.9	2.0	0.7	O(I)			0.0029	N/A
Isopropanol	67-63-0	55%	55	0.76	0.64	2.6	2.4	0.91	7	C			0.00013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	95%	55	3.8	2.2	13	7.7	4.4	5	I			0.00089	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	93%	55	0.49	0.33	1.9	1.1	0.57	3	O(I)			0.00019	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	98%	55	0.78	0.45	2.4	2.2	0.90	0.057	L(I)			0.016	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	1.8%	55	N/A	N/A	3.5	0.18	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	89%	55	1.2	2.4	18	3.6	1.7	3	C			0.00057	N/A
Styrene	100-42-5	7.3%	55	0.26	0.047	0.47	0.36	0.28	1	O(I)			0.00028	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	36%	55	0.19	0.58	4.0	0.34	0.33	0.27	O(A)	0.0000059	O(C)	0.0012	1.9x10⁻⁶
Tetrahydrofuran (THF)	109-99-9	36%	55	0.25	0.86	6.1	0.65	0.44	0.035	R			0.013	N/A
Toluene	108-88-3	98%	55	1.9	1.2	5.8	5.3	2.1	5	O(I)			0.00043	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	91%	55	0.56	0.51	3.8	0.84	0.68					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	35%	55	0.12	0.13	0.66	0.27	0.15	1	O(C)			0.00015	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	55	N/A	N/A	3.1	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	29%	55	0.20	0.91	6.3	0.27	0.42	0.6	O(C)	0.000002	O(C)	0.0007	8.4x10⁻⁷
Trichlorofluoromethane (F-11)	75-69-4	98%	55	1.0	0.79	6.4	1.5	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	16%	55	0.079	0.093	0.39	0.29	0.098	0.006	L(P)			0.016	N/A
1,2,4-Trimethylbenzene	95-63-6	85%	55	0.39	0.27	1.3	1.0	0.46	0.007	L(R(p))			0.065	N/A
Vinyl Acetate	108-05-4	98%	55	13	17	90	60	18	0.2	O(I)			0.088	N/A
Vinyl Chloride	75-01-4	1.8%	55	N/A	N/A	22	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.6%	55	0.15	1.1	5.9	0.12	0.40	0.2	O(I)			0.002	N/A
o-Xylene	95-47-6	87%	55	0.35	0.24	1.1	0.91	0.40	0.1	O(I)			0.004	N/A
m+p-Xylenes	106-42-3	96%	55	1.0	0.65	3.2	2.3	1.1	0.1	O(I)			0.011	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	80%	60	5.0	4.3	17	15	6.0	31	A			0.00019	N/A
Acrolein	107-02-8	98%	60	1.4	0.85	3.8	3.7	1.5	0.00002	O(I)			77	N/A
Benzene	71-43-2	100%	60	1.2	0.93	4.6	3.5	1.5	0.03	O(I)	0.0000078	O(I)	0.049	1.1x10⁻⁵
Benzyl Chloride	100-44-7	0%	60	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	1.7%	60	N/A	N/A	0.20	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	60	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	38%	60	0.30	0.13	0.70	0.62	0.33	0.005	O(I)			0.066	N/A
1,3-Butadiene	106-99-0	58%	60	0.13	0.13	0.53	0.46	0.16	0.002	O(I)	0.00003	O(I)	0.081	4.8x10⁻⁶
Carbon Disulfide	75-15-0	28%	60	0.84	5.3	39	0.34	2.1	0.7	O(I)			0.0029	N/A
Carbon Tetrachloride	56-23-5	6.7%	60	0.45	0.024	0.57	0.50	0.45	0.19	O(D-A)	0.000015	O(I)	0.0024	6.8x10⁻⁶
Chlorobenzene	108-90-7	0%	60	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	60	N/A	N/A	0.16	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	6.7%	60	0.15	0.031	0.34	0.16	0.16	0.098	O(A)	0.000023	I	0.0016	3.6x10⁻⁶
Chloromethane	74-87-3	98%	60	0.87	0.14	1.1	1.1	0.89	0.09	O(I)			0.0098	N/A
Cyclohexane	100-82-7	78%	60	0.33	0.31	1.2	1.1	0.41	6	I			0.000069	N/A
Dibromochloromethane	124-48-1	0%	60	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.3%	60	0.19	0.054	0.48	0.14	0.20					N/A	N/A
p-Dichlorobenzene	106-46-7	17%	60	0.28	0.14	0.96	0.60	0.31	0.8	O(I)	0.000011	O(C)	0.00039	3.4x10⁻⁶
o-Dichlorobenzene	95-50-1	3.3%	60	0.37	0.096	0.90	0.27	0.39	0.6	R			0.00065	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	60	2.5	0.45	3.4	3.1	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	60	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.7%	60	N/A	N/A	0.12	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.7%	60	N/A	N/A	0.24	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	60	N/A	N/A	0.094	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	77%	60	0.38	0.73	5.4	1.4	0.56	1	O(A)	4.7x10⁻⁷	O(I)	0.00056	2.6x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	60	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	60	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	60	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.7%	60	N/A	N/A	0.21	0.12	N/A					N/A	N/A
1,4-Dioxane	123-91-1	8.3%	60	0.24	0.40	2.9	0.54	0.32	3.6	O(D-A)	0.0000077	O(C)	0.00009	2.5x10⁻⁶
Ethanol	64-17-5	100%	60	54	55	260	250	66	100	L(IDEM)			0.00066	N/A
Ethyl Acetate	141-78-6	40%	60	0.24	0.20	1.1	0.76	0.28	0.37	ACGIH			0.00077	N/A
Ethylbenzene	100-41-4	47%	60	0.39	0.31	1.5	1.1	0.48	1	O(I)	0.0000025	C	0.00048	1.2x10⁻⁶
p-Ethyltoluene	622-96-8	13%	60	0.21	0.059	0.49	0.37	0.23					N/A	N/A
Heptane	142-82-5	100%	60	0.61	0.53	2.4	2.1	0.74	0.43	ACGIH			0.0017	N/A
Hexachlorobutadiene	87-68-3	5.0%	60	0.18	0.51	3.0	0.67	0.30	0.09	O(P-C)	0.000022	O(I)	0.0033	6.6x10⁻⁶
Hexane	110-54-3	100%	60	2.0	2.2	8.8	7.7	2.5	0.7	O(I)			0.0036	N/A
Isopropanol	67-63-0	92%	60	0.64	0.42	1.7	1.4	0.74	7	C			0.00011	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	100%	60	2.4	2.0	13	6.5	2.8	5	I			0.00056	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	68%	60	0.28	0.36	2.1	0.98	0.36	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	87%	60	0.36	0.26	1.3	0.94	0.41	0.057	L(I)			0.0072	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	60	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	93%	60	2.1	2.2	10	8.8	2.6	3	C			0.00086	N/A
Styrene	100-42-5	10%	60	0.13	0.03	0.26	0.19	0.14	1	O(I)			0.00014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	60	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	10%	60	0.088	0.088	0.47	0.34	0.11	0.27	O(A)	0.0000059	O(C)	0.0004	6.4×10^{-7}
Tetrahydrofuran (THF)	109-99-9	27%	60	0.14	0.24	1.1	0.71	0.19	0.035	R			0.0056	N/A
Toluene	108-88-3	100%	60	2.2	2.1	8.1	7.5	2.7	5	O(I)			0.00054	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	98%	60	0.52	0.11	0.69	0.69	0.55					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.3%	60	1.2	0.26	2.7	0.57	1.3	0.2	O(H)			0.0065	N/A
1,1,1-Trichloroethane	71-55-6	57%	60	0.17	0.022	0.27	0.22	0.17	1	O(C)			0.00017	N/A
1,1,2-Trichloroethane	79-00-5	0%	60	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	3.3%	60	N/A	N/A	0.27	0.21	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	100%	60	1.2	0.19	1.6	1.5	1.3	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	6.7%	60	0.26	0.038	0.44	0.35	0.26	0.006	L(P)			0.043	N/A
1,2,4-Trimethylbenzene	95-63-6	58%	60	0.34	0.35	1.7	1.5	0.42	0.007	L(R(p))			0.06	N/A
Vinyl Acetate	108-05-4	63%	60	4.9	8.1	42	27	6.7	0.2	O(I)			0.033	N/A
Vinyl Chloride	75-01-4	0%	60	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	60	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	70%	60	0.34	0.33	1.4	1.2	0.42	0.1	O(I)			0.0042	N/A
m+p-Xylenes	106-42-3	80%	60	1.1	1.1	4.8	3.9	1.3	0.1	O(I)			0.013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	77%	48	0.70	0.45	2.0	1.7	0.83	0.03	O(I)	0.0000078	O(I)	0.028	6.5×10^{-6}
Bromomethane	74-83-9	0%	48	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	48	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	48	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	48	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	48	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	77%	48	0.70	0.37	1.4	1.3	0.80	0.09	O(I)			0.0089	N/A
Cyclohexane	100-82-7	25%	48	0.23	0.072	0.58	0.41	0.25	6	I			0.000041	N/A
1,2-Dibromoethane	106-93-4	0%	48	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	2.1%	48	N/A	N/A	0.90	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	4.2%	48	0.31	0.11	0.84	0.30	0.34	0.8	O(I)	0.000011	O(C)	0.00042	3.7×10^{-6}
o-Dichlorobenzene	95-50-1	0%	48	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	48	2.2	0.84	5.1	4.3	2.5	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	48	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	48	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	48	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	2.1%	48	N/A	N/A	0.38	0.34	N/A	1	O(A)	4.7×10^{-7}	O(I)	N/A	N/A
1,2-Dichloropropane	78-87-5	2.1%	48	N/A	N/A	1.1	0.69	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	48	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	48	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	6.3%	48	0.15	0.50	2.9	0.84	0.27					N/A	N/A
Ethylbenzene	100-41-4	88%	48	0.31	0.23	1.1	0.82	0.36	1	O(I)	0.0000025	C	0.00036	9.1×10^{-7}
p-Ethyltoluene	622-96-8	25%	48	0.26	0.23	1.5	0.74	0.32					N/A	N/A
Heptane	142-82-5	65%	48	0.25	0.18	0.90	0.78	0.30	0.43	ACGIH			0.0007	N/A
Hexachlorobutadiene	87-68-3	0%	48	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	69%	48	0.49	0.39	1.9	1.3	0.60	0.7	O(I)			0.00085	N/A
Propene	115-07-1	100%	48	1.7	1.1	7.2	4.5	1.9	3	C			0.00063	N/A
Styrene	100-42-5	38%	48	0.40	0.29	1.4	1.1	0.47	1	O(I)			0.00047	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	48	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	48	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	96%	48	2.2	2.0	11	7.2	2.7	5	O(I)			0.00054	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	21%	48	0.49	0.11	1.1	0.74	0.52					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	48	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	48	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	48	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	23%	48	1.3	0.97	6.0	4.2	1.6	0.6	O(C)	0.000002	O(C)	0.0026	3.1×10^{-6}
Trichlorofluoromethane (F-11)	75-69-4	67%	48	0.79	0.29	1.5	1.3	0.84	0.7	L(R(h))			0.0012	N/A
1,3,5-Trimethylbenzene	108-67-8	21%	48	0.34	0.19	1.4	0.69	0.38	0.006	L(P)			0.064	N/A
1,2,4-Trimethylbenzene	95-63-6	92%	48	1.7	1.2	6.5	4.0	2.0	0.007	L(R(p))			0.29	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	48	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	48	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	21%	48	0.48	0.087	0.87	0.65	0.48	0.1	O(I)			0.0048	N/A
m+p-Xylenes	106-42-3	90%	48	0.82	0.78	4.7	2.0	1.0	0.1	O(I)			0.01	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	83%	60	0.64	0.38	2.3	1.3	0.73	0.03	O(I)	0.0000078	O(I)	0.024	5.7×10^{-6}
Bromomethane	74-83-9	30%	60	0.047	0.062	0.43	0.35	0.062	0.005	O(I)			0.012	N/A
Carbon Tetrachloride	56-23-5	3.3%	60	0.22	0.35	2.1	0.69	0.30	0.19	O(D-A)	0.000015	O(I)	0.0016	4.5×10^{-6}
Chlorobenzene	108-90-7	5.0%	60	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	22%	60	0.05	0.15	0.92	0.63	0.084	10	O(I)			0.0000084	N/A
Chloroform	67-66-3	1.7%	60	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	100%	60	1.0	0.35	3.1	1.5	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	18%	60	0.21	0.028	0.31	0.31	0.22	6	I			0.000037	N/A
1,2-Dibromoethane	106-93-4	1.7%	60	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.3%	60	0.066	0.054	0.36	0.30	0.078					N/A	N/A
p-Dichlorobenzene	106-46-7	13%	60	0.072	0.084	0.48	0.28	0.09	0.8	O(I)	0.000011	O(C)	0.00011	9.9×10^{-7}
o-Dichlorobenzene	95-50-1	8.3%	60	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	97%	60	2.6	0.69	3.6	3.5	2.7	1.5	ACGIH			0.0018	N/A
1,1-Dichloroethane	75-34-3	3.3%	60	0.049	0.11	0.65	0.41	0.077	0.5	O(H)	0.0000016	O(C)	0.00015	1.2×10^{-7}
1,2-Dichloroethane	107-06-2	1.7%	60	N/A	N/A	0.36	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	3.3%	60	0.079	0.30	0.51	0.51	0.15	0.03	R			0.0049	N/A
Dichloromethane	75-09-2	5.0%	60	0.052	0.11	0.59	0.38	0.076	1	O(A)	4.7×10^{-7}	O(I)	0.000076	3.6×10^{-8}
1,2-Dichloropropane	78-87-5	23%	60	0.12	0.26	1.7	0.65	0.18	0.004	O(I)	0.000019	O(R)	0.044	3.3×10^{-6}
c-1,3-Dichloropropene	10061-01-3	1.7%	60	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	13%	60	0.17	0.44	0.82	0.77	0.27	0.02	L(IDEM)	0.000004		0.013	1.1×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.7%	60	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	95%	60	0.27	0.14	0.78	0.52	0.30	1	O(I)	0.0000025	C	0.0003	7.5×10^{-7}
p-Ethyltoluene	622-96-8	45%	60	0.25	0.11	0.69	0.49	0.27					N/A	N/A
Heptane	142-82-5	83%	60	0.29	0.18	0.98	0.66	0.33	0.43	ACGIH			0.00077	N/A
Hexachlorobutadiene	87-68-3	3.3%	60	0.12	0.14	0.86	0.75	0.15	0.09	O(P-C)	0.000022	O(I)	0.0017	3.3×10^{-6}
Hexane	110-54-3	87%	60	0.53	0.33	1.6	1.2	0.60	0.7	O(I)			0.00085	N/A
Propene	115-07-1	97%	60	0.89	0.60	2.7	2.4	1.0	3	C			0.00034	N/A
Styrene	100-42-5	53%	60	0.60	1.5	10	2.2	0.98	1	O(I)			0.00098	N/A
1,1,2,2-Tetrachloroethane	79-34-5	6.7%	60	N/A	N/A	0.41	0.41	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	12%	60	N/A	N/A	0.75	0.75	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	60	1.5	0.90	5.1	3.1	1.7	5	O(I)			0.00034	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	62%	60	0.57	0.24	2.1	0.77	0.62					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.3%	60	0.17	0.26	0.45	0.45	0.23	0.2	O(H)			0.0012	N/A
1,1,1-Trichloroethane	71-55-6	0%	60	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	1.7%	60	N/A	N/A	0.44	0.44	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	8.3%	60	0.075	0.22	1.3	0.81	0.12	0.6	O(C)	0.000002	O(C)	0.00021	2.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	98%	60	1.1	0.39	2.9	1.6	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	15%	60	0.31	0.079	0.69	0.49	0.33	0.006	L(P)			0.055	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	60	1.7	1.4	8.4	5.4	2.0	0.007	L(R(p))			0.29	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	5.0%	60	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	60	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	37%	60	0.95	2.6	17	3.3	1.5	0.1	O(I)			0.015	N/A
m+p-Xylenes	106-42-3	100%	60	0.74	0.42	2.4	1.6	0.82	0.1	O(I)			0.0082	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	57	0.89	0.61	3.6	2.3	1.1	0.03	O(I)	0.0000078	O(I)	0.035	8.2×10^{-6}
Bromomethane	74-83-9	7.0%	57	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	3.5%	57	0.25	1.4	0.82	0.82	0.58	0.19	O(D-A)	0.000015	O(I)	0.003	8.7×10^{-6}
Chlorobenzene	108-90-7	5.3%	57	0.10	0.30	0.51	0.18	0.17	1	O(C)			0.00017	N/A
Chloroethane	75-00-3	12%	57	N/A	N/A	0.24	0.24	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	7.0%	57	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	96%	57	0.76	0.35	1.7	1.4	0.84	0.09	O(I)			0.0094	N/A
Cyclohexane	100-82-7	39%	57	0.30	0.27	1.7	1.1	0.38	6	I			0.000063	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.5%	57	0.09	0.22	0.48	0.48	0.14					N/A	N/A
p-Dichlorobenzene	106-46-7	5.3%	57	0.14	0.41	1.1	0.54	0.23	0.8	O(I)	0.000011	O(C)	0.00029	2.6×10^{-6}
o-Dichlorobenzene	95-50-1	1.8%	57	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	57	2.1	0.69	4.3	2.9	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	5.3%	57	0.31	2.3	1.3	1.3	0.85	0.5	O(H)	0.0000016	O(C)	0.0017	1.4×10^{-6}
1,2-Dichloroethane	107-06-2	1.8%	57	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	57	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	7.0%	57	0.042	0.069	0.42	0.38	0.059	1	O(A)	4.7×10^{-7}	O(I)	0.000059	2.8×10^{-8}
1,2-Dichloropropane	78-87-5	0%	57	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	57	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	57	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	57	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	57	0.74	3.2	24	0.91	1.5	1	O(I)	0.0000025	C	0.0015	3.7×10^{-6}
p-Ethyltoluene	622-96-8	75%	57	0.54	0.69	3.8	2.4	0.69					N/A	N/A
Heptane	142-82-5	95%	57	0.45	0.45	2.9	1.5	0.53	0.43	ACGIH			0.0012	N/A
Hexachlorobutadiene	87-68-3	0%	57	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	57	1.1	1.7	11	4.9	1.4	0.7	O(I)			0.0021	N/A
Propene	115-07-1	98%	57	1.6	1.0	6.1	3.6	1.9	3	C			0.00063	N/A
Styrene	100-42-5	46%	57	0.35	0.15	0.85	0.77	0.39	1	O(I)			0.00039	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.8%	57	N/A	N/A	0.48	0.48	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	3.5%	57	N/A	N/A	0.41	0.41	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	57	2.0	1.4	6.3	5.7	2.3	5	O(I)			0.00046	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	26%	57	0.31	0.16	0.69	0.61	0.34					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	5.3%	57	0.089	0.20	0.54	0.54	0.14	0.2	O(H)			0.00069	N/A
1,1,1-Trichloroethane	71-55-6	5.3%	57	0.071	0.16	0.98	0.98	0.11	1	O(C)			0.00011	N/A
1,1,2-Trichloroethane	79-00-5	1.8%	57	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	1.8%	57	N/A	N/A	0.32	0.32	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	86%	57	1.0	0.34	2.2	1.4	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	30%	57	0.49	0.54	3.0	1.9	0.64	0.006	L(P)			0.11	N/A
1,2,4-Trimethylbenzene	95-63-6	86%	57	1.2	0.98	4.9	3.4	1.4	0.007	L(R(p))			0.20	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	57	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	57	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	28%	57	0.69	1.7	13	1.1	1.1	0.1	O(I)			0.011	N/A
m+p-Xylenes	106-42-3	100%	57	2.0	7.8	61	2.7	3.8	0.1	O(I)			0.038	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	52	7.9	5.5	22	20	9.3	31	A			0.0003	N/A
Benzene	71-43-2	87%	52	0.70	0.70	5.3	1.2	0.86	0.03	O(I)	0.0000078	O(I)	0.029	6.7×10^{-6}
Benzyl Chloride	100-44-7	3.8%	52	0.078	0.19	0.45	0.46	0.12	0.00066	ACGIH	0.000049	O(C)	0.19	6.1×10^{-6}
Bromodichloromethane	75-27-4	5.8%	52	N/A	N/A	0.13	0.13	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	13%	52	0.043	0.05	0.42	0.43	0.058	0.005	O(I)			0.012	N/A
1,3-Butadiene	106-99-0	13%	52	0.069	0.14	0.60	0.60	0.10	0.002	O(I)	0.00003	O(I)	0.052	3.1×10^{-6}
Carbon Disulfide	75-15-0	27%	52	1.4	3.4	18	9.3	2.2	0.7	O(I)			0.0032	N/A
Carbon Tetrachloride	56-23-5	3.8%	52	N/A	N/A	0.19	0.18	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	52	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	17%	52	0.18	0.40	1.6	1.2	0.26	10	O(I)			0.000026	N/A
Chloroform	67-66-3	9.6%	52	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	83%	52	1.7	2.7	11	9.9	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	44%	52	0.11	0.22	1.2	0.62	0.17	6	I			0.000028	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	52	N/A	N/A	0.82	0.84	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.8%	52	0.084	0.16	0.66	0.50	0.12	0.8	O(I)	0.000011	O(C)	0.00015	1.3×10^{-6}
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	94%	52	5.4	14	93	27	8.9	1.5	ACGIH			0.0059	N/A
1,1-Dichloroethane	75-34-3	7.7%	52	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.9%	52	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	52	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	52	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	12%	52	0.069	0.10	0.37	0.38	0.094	1	O(A)	4.7×10^{-7}	O(I)	0.000094	4.4×10^{-8}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	52	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	5.8%	52	N/A	N/A	2.6	2.6	N/A					N/A	N/A
1,4-Dioxane	123-91-1	1.9%	52	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	90%	52	30	31	130	100	38	100	L(IDEM)			0.00038	N/A
Ethyl Acetate	141-78-6	58%	52	0.17	0.31	2.1	0.58	0.24	0.37	ACGIH			0.00066	N/A
Ethylbenzene	100-41-4	35%	52	0.10	0.15	0.91	0.39	0.14	1	O(I)	0.0000025	C	0.00014	3.5×10^{-7}
p-Ethyltoluene	622-96-8	23%	52	0.10	0.14	0.59	0.32	0.14					N/A	N/A
Heptane	142-82-5	62%	52	0.30	0.74	5.1	1.3	0.49	0.43	ACGIH			0.0011	N/A
Hexachlorobutadiene	87-68-3	1.9%	52	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	71%	52	0.63	1.5	10	3.1	0.99	0.7	O(I)			0.0014	N/A
Isopropanol	67-63-0	54%	52	0.76	1.1	6.0	3.0	1.0	7	C			0.00015	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	79%	52	1.3	1.2	4.4	3.8	1.5	5	I			0.00031	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	35%	52	0.13	0.15	2.0	2.0	0.16	3	O(I)			0.000055	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	31%	52	0.24	0.66	3.4	2.1	0.40	0.057	L(I)			0.007	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	52	N/A	N/A	0.25	0.25	N/A	3	O(I)	2.6x10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	52	2.9	4.5	17	15	4.0	3	C			0.0013	N/A
Styrene	100-42-5	7.7%	52	0.051	0.094	0.29	0.29	0.077	1	O(I)			0.000077	N/A
1,1,2,2-Tetrachloroethane	79-34-5	5.8%	52	N/A	N/A	0.14	0.13	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	15%	52	0.081	0.10	0.99	1.0	0.11	0.27	O(A)	0.0000059	O(C)	0.0004	6.4x10^{-7}
Tetrahydrofuran (THF)	109-99-9	46%	52	0.089	0.10	0.50	0.30	0.11	0.035	R			0.0032	N/A
Toluene	108-88-3	88%	52	0.87	0.98	5.5	3.2	1.1	5	O(I)			0.00022	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	50%	52	0.58	0.092	0.84	0.77	0.61					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	13%	52	0.071	0.093	1.0	0.98	0.093	1	O(C)			0.000093	N/A
1,1,2-Trichloroethane	79-00-5	1.9%	52	N/A	N/A	0.055	0.055	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	15%	52	0.059	0.064	1.2	1.2	0.075	0.6	O(C)	0.000002	O(C)	0.00013	1.5x10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	98%	52	1.0	0.35	2.5	1.6	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	23%	52	0.089	0.16	0.93	0.33	0.13	0.006	L(P)			0.021	N/A
1,2,4-Trimethylbenzene	95-63-6	15%	52	0.12	0.54	3.4	0.39	0.26	0.007	L(R(p))			0.037	N/A
Vinyl Chloride	75-01-4	7.7%	52	N/A	N/A	0.36	0.36	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	5.8%	52	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	7.7%	52	0.074	0.20	0.91	0.65	0.13	0.1	O(I)			0.0013	N/A
m+p-Xylenes	106-42-3	60%	52	0.30	0.41	2.7	1.0	0.39	0.1	O(I)			0.0039	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	60	13	6.7	27	26	14	31	A			0.00045	N/A
Benzene	71-43-2	88%	60	0.57	0.31	1.5	1.3	0.64	0.03	O(I)	0.0000078	O(I)	0.021	5.0x10⁻⁶
Benzyl Chloride	100-44-7	0%	60	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	3.3%	60	N/A	N/A	0.067	0.067	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	60	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	30%	60	0.12	0.19	0.58	0.43	0.17	0.005	O(I)			0.033	N/A
1,3-Butadiene	106-99-0	38%	60	0.13	0.29	1.1	0.75	0.19	0.002	O(I)	0.00003	O(I)	0.097	5.8x10⁻⁶
Carbon Disulfide	75-15-0	73%	60	0.37	0.40	1.9	1.3	0.47	0.7	O(I)			0.00067	N/A
Carbon Tetrachloride	56-23-5	0%	60	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	60	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	28%	60	0.20	0.09	0.80	0.79	0.21	10	O(I)			0.000021	N/A
Chloroform	67-66-3	50%	60	N/A	N/A	0.20	0.11	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	95%	60	0.99	0.45	2.9	1.7	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	58%	60	0.11	0.22	1.1	0.58	0.16	6	I			0.000027	N/A
Dibromochloromethane	124-48-1	1.7%	60	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	6.7%	60	0.11	0.35	2.2	0.51	0.19					N/A	N/A
p-Dichlorobenzene	106-46-7	10%	60	0.16	0.40	2.5	0.57	0.25	0.8	O(I)	0.000011	O(C)	0.00031	2.7x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	60	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	92%	60	2.1	1.1	3.6	3.3	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	60	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.7%	60	N/A	N/A	0.041	0.041	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	60	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	60	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	48%	60	0.11	0.062	0.37	0.38	0.12	1	O(A)	4.7x10⁻⁷	O(I)	0.00012	5.7x10⁻⁸
1,2-Dichloropropane	78-87-5	1.7%	60	N/A	N/A	0.046	0.046	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.7%	60	N/A	N/A	0.045	0.045	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	60	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	42%	60	0.077	0.05	1.8	1.7	0.091					N/A	N/A
1,4-Dioxane	123-91-1	1.7%	60	N/A	N/A	0.29	0.29	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	60	53	40	140	130	60	100	L(IDEM)			0.0006	N/A
Ethyl Acetate	141-78-6	87%	60	0.12	0.065	0.29	0.26	0.13	0.37	ACGIH			0.00035	N/A
Ethylbenzene	100-41-4	47%	60	0.082	0.061	0.30	0.17	0.095	1	O(I)	0.0000025	C	0.000095	2.4x10⁻⁷
p-Ethyltoluene	622-96-8	37%	60	0.21	0.29	1.4	0.84	0.27					N/A	N/A
Heptane	142-82-5	63%	60	0.19	0.18	0.90	0.61	0.23	0.43	ACGIH			0.00054	N/A
Hexachlorobutadiene	87-68-3	0%	60	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	75%	60	0.21	0.13	0.63	0.46	0.24	0.7	O(I)			0.00034	N/A
Isopropanol	67-63-0	88%	60	1.1	1.6	12	3.4	1.4	7	C			0.0002	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	60	2.7	2.1	7.7	6.8	3.2	5	I			0.00065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	48%	60	0.20	0.25	170	170	0.25	3	O(I)			0.000085	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	47%	60	0.70	0.94	3.0	2.3	0.90	0.057	L(I)			0.016	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	5.0%	60	N/A	N/A	0.28	0.28	N/A	3	O(I)	2.6x10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	60	1.2	2.2	12	8.3	1.7	3	C			0.00057	N/A
Styrene	100-42-5	8.3%	60	0.085	0.23	0.29	0.29	0.14	1	O(I)			0.00014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	60	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	17%	60	0.081	0.095	0.92	0.95	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0x10^{-7}
Tetrahydrofuran (THF)	109-99-9	62%	60	0.089	0.091	0.38	0.26	0.11	0.035	R			0.0032	N/A
Toluene	108-88-3	98%	60	0.68	0.41	2.6	1.6	0.79	5	O(I)			0.00016	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	40%	60	0.39	0.29	0.84	0.63	0.46					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	60	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	55%	60	N/A	N/A	0.16	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	60	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	38%	60	0.097	0.12	0.89	0.91	0.12	0.6	O(C)	0.000002	O(C)	0.00021	2.5x10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	60	1.1	0.21	1.6	1.3	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	12%	60	0.098	0.21	0.38	0.38	0.15	0.006	L(P)			0.025	N/A
1,2,4-Trimethylbenzene	95-63-6	3.3%	60	N/A	N/A	0.43	0.43	N/A	0.007	L(R(p))			N/A	N/A
Vinyl Chloride	75-01-4	1.7%	60	N/A	N/A	0.026	0.026	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	6.7%	60	N/A	N/A	0.079	0.079	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	25%	60	0.095	0.082	0.46	0.48	0.11	0.1	O(I)			0.0011	N/A
m+p-Xylenes	106-42-3	73%	60	0.19	0.19	1.1	0.56	0.23	0.1	O(I)			0.0023	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m^3	KM St. Dev. µg/m^3	Max Detect µg/m^3	97th Percentile µg/m^3	95% KM(t) UCL µg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(µg/m^3)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	53	7.4	4.8	27	19	8.6	31	A			0.00028	N/A
Benzene	71-43-2	79%	53	0.54	0.32	2.0	1.2	0.64	0.03	O(I)	0.0000078	O(I)	0.021	5.0x10^{-6}
Benzyl Chloride	100-44-7	13%	53	0.51	0.20	0.88	0.62	0.57	0.00066	ACGIH	0.000049	O(C)	0.86	2.8x10^{-5}
Bromodichloromethane	75-27-4	9.4%	53	N/A	N/A	0.71	0.74	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	1.9%	53	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	43%	53	0.47	0.35	1.2	1.0	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	25%	53	0.051	0.051	0.13	0.11	0.064	0.002	O(I)	0.00003	O(I)	0.032	1.9x10^{-6}
Carbon Disulfide	75-15-0	38%	53	0.047	0.04	0.28	0.28	0.056	0.7	O(I)			0.00008	N/A
Carbon Tetrachloride	56-23-5	0%	53	N/A	N/A	0.75	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	1.9%	53	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.9%	53	N/A	N/A	0.45	0.45	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	7.5%	53	0.059	0.11	0.50	0.49	0.088	0.098	O(A)	0.000023	I	0.0009	2.0x10^{-6}
Chloromethane	74-87-3	89%	53	0.56	0.45	2.3	2.0	0.66	0.09	O(I)			0.0073	N/A
Cyclohexane	100-82-7	28%	53	0.14	0.27	0.76	0.62	0.21	6	I			0.000034	N/A
Dibromochloromethane	124-48-1	1.9%	53	N/A	N/A	0.97	0.94	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	53	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.9%	53	N/A	N/A	0.63	0.60	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.7%	53	0.16	0.84	1.0	1.0	0.36	0.8	O(I)	0.000011	O(C)	0.00045	4.0x10^{-6}
o-Dichlorobenzene	95-50-1	0%	53	N/A	N/A	0.81	0.84	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	89%	53	1.6	0.89	7.1	2.2	1.8	1.5	ACGIH			0.0012	N/A
1,1-Dichloroethane	75-34-3	1.9%	53	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	19%	53	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	9.4%	53	0.056	0.087	0.40	0.40	0.075	0.06	R			0.0013	N/A
c-1,2-Dichloroethene	156-59-2	13%	53	N/A	N/A	0.41	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	15%	53	0.087	0.076	0.32	0.32	0.10	1	O(A)	4.7x10^{-7}	O(I)	0.0001	4.9x10^{-8}
1,2-Dichloropropane	78-87-5	1.9%	53	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.9%	53	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.8%	53	N/A	N/A	0.47	0.45	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	26%	53	0.31	0.56	1.8	1.7	0.44					N/A	N/A
1,4-Dioxane	123-91-1	21%	53	0.18	0.54	3.5	0.61	0.31	3.6	O(D-A)	0.0000077	O(C)	0.000086	2.4x10^{-6}
Ethanol	64-17-5	94%	53	19	14	60	49	23	100	L(IDEM)			0.00023	N/A
Ethyl Acetate	141-78-6	57%	53	0.15	0.22	1.3	0.47	0.20	0.37	ACGIH			0.00054	N/A
Ethylbenzene	100-41-4	25%	53	0.16	0.23	0.50	0.52	0.22	1	O(I)	0.0000025	C	0.00022	5.4x10^{-7}
p-Ethyltoluene	622-96-8	28%	53	0.15	0.21	0.59	0.54	0.20					N/A	N/A
Heptane	142-82-5	60%	53	0.16	0.12	0.49	0.49	0.19	0.43	ACGIH			0.00045	N/A
Hexachlorobutadiene	87-68-3	11%	53	0.27	0.52	1.8	0.94	0.40	0.09	O(P-C)	0.000022	O(I)	0.0044	8.7x10^{-6}
Hexane	110-54-3	57%	53	0.32	0.15	0.88	0.60	0.35	0.7	O(I)			0.0005	N/A
Isopropanol	67-63-0	51%	53	0.64	1.2	7.2	3.0	0.93	7	C			0.00013	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	96%	53	1.5	1.4	8.9	4.4	1.9	5	I			0.00038	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m^3	KM St. Dev. μg/m^3	Max Detect μg/m^3	97th Percentile μg/m^3	95% KM(t) UCL μg/m^3	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) 1/(μg/m^3)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	28%	53	0.23	1.0	6.8	0.37	0.49	3	O(I)			0.00016	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	28%	53	0.78	3.1	18	8.2	1.5	0.057	L(I)			0.027	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	13%	53	N/A	N/A	0.41	0.40	N/A	3	O(I)	2.6x10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	94%	53	1.0	0.65	2.2	2.1	1.2	3	C			0.00038	N/A
Styrene	100-42-5	9.4%	53	0.085	0.15	0.66	0.68	0.12	1	O(I)			0.00012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	53	N/A	N/A	0.70	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	21%	53	0.081	0.081	0.79	0.81	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0x10^{-7}
Tetrahydrofuran (THF)	109-99-9	72%	53	0.094	0.12	0.62	0.44	0.12	0.035	R			0.0035	N/A
Toluene	108-88-3	92%	53	0.60	0.45	2.1	1.8	0.72	5	O(I)			0.00014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	19%	53	0.51	0.42	1.2	0.84	0.61					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	53	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	19%	53	0.071	0.082	0.54	0.54	0.093	1	O(C)			0.000093	N/A
1,1,2-Trichloroethane	79-00-5	0%	53	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	28%	53	0.059	0.048	0.55	0.54	0.07	0.6	O(C)	0.000002	O(C)	0.00012	1.4x10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	92%	53	0.84	0.17	1.2	1.2	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	26%	53	0.10	0.24	0.65	0.64	0.16	0.006	L(P)			0.026	N/A
1,2,4-Trimethylbenzene	95-63-6	15%	53	0.084	0.16	0.64	0.41	0.12	0.007	L(R(p))			0.018	N/A
Vinyl Chloride	75-01-4	5.7%	53	N/A	N/A	0.061	0.061	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	13%	53	0.051	0.067	0.36	0.36	0.067	0.2	O(I)			0.00034	N/A
o-Xylene	95-47-6	21%	53	0.065	0.074	0.53	0.52	0.082	0.1	O(I)			0.00082	N/A
m+p-Xylenes	106-42-3	60%	53	0.28	0.30	3.2	3.3	0.35	0.1	O(I)			0.0035	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	58	6.4	8.1	37	31	8.3	31	A			0.00027	N/A
Benzene	71-43-2	79%	58	0.48	0.35	1.7	1.4	0.57	0.03	O(I)	0.0000078	O(I)	0.019	4.5x10⁻⁶
Benzyl Chloride	100-44-7	19%	58	0.83	1.3	3.7	3.6	1.1	0.00066	ACGIH	0.000049	O(C)	1.7	5.6x10⁻⁵
Bromodichloromethane	75-27-4	3.4%	58	0.23	0.25	0.36	0.36	0.29			0.000037	C	N/A	1.1x10⁻⁵
Bromoform	75-25-2	0%	58	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	40%	58	0.28	0.38	1.7	1.1	0.36	0.005	O(I)			0.072	N/A
1,3-Butadiene	106-99-0	22%	58	0.53	4.0	28	0.11	1.4	0.002	O(I)	0.00003	O(I)	0.72	4.3x10⁻⁵
Carbon Disulfide	75-15-0	10%	58	0.053	0.087	0.16	0.16	0.072	0.7	O(I)			0.0001	N/A
Carbon Tetrachloride	56-23-5	10%	58	0.10	0.14	0.50	0.46	0.13	0.19	O(D-A)	0.000015	O(I)	0.0007	2.0x10⁻⁶
Chlorobenzene	108-90-7	0%	58	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	6.9%	58	0.032	0.061	0.45	0.45	0.048	10	O(I)			0.0000048	N/A
Chloroform	67-66-3	12%	58	N/A	N/A	0.12	0.12	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	79%	58	0.64	0.62	2.6	1.9	0.78	0.09	O(I)			0.0087	N/A
Cyclohexane	100-82-7	71%	58	0.72	1.2	3.6	3.4	1.0	6	I			0.00017	N/A
Dibromochloromethane	124-48-1	0%	58	N/A	N/A	0.42	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	58	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.2%	58	0.10	0.17	0.29	0.29	0.14					N/A	N/A
p-Dichlorobenzene	106-46-7	8.6%	58	0.11	0.22	0.36	0.35	0.16	0.8	O(I)	0.000011	O(C)	0.0002	1.8x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	58	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	91%	58	1.7	1.2	4.5	4.1	2.0	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	58	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	6.9%	58	N/A	N/A	0.27	0.27	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	6.9%	58	N/A	N/A	0.13	0.13	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	6.9%	58	0.067	0.15	0.19	0.19	0.10	0.03	R			0.0034	N/A
Dichloromethane	75-09-2	33%	58	0.20	0.26	1.1	0.80	0.26	1	O(A)	4.7x10⁻⁷	O(I)	0.00026	1.2x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	58	N/A	N/A	0.25	0.25	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	3.4%	58	0.095	0.068	0.45	0.19	0.11					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	10%	58	0.073	0.17	0.32	0.16	0.11	0.02	L(IDEM)	0.000004		0.0057	4.5x10⁻⁷
Dichloro-Tetrafluoroethane (F-114)	76-14-2	40%	58	0.66	0.91	5.4	2.0	0.91					N/A	N/A
1,4-Dioxane	123-91-1	21%	58	0.10	0.30	1.9	0.86	0.17	3.6	O(D-A)	0.0000077	O(C)	0.000048	1.3x10⁻⁶
Ethanol	64-17-5	78%	58	9.9	14	50	47	13	100	L(IDEM)			0.00013	N/A
Ethyl Acetate	141-78-6	64%	58	0.72	2.7	20	2.5	1.3	0.37	ACGIH			0.0036	N/A
Ethylbenzene	100-41-4	45%	58	0.14	0.074	0.35	0.32	0.16	1	O(I)	0.0000025	C	0.00016	3.9x10⁻⁷
p-Ethyltoluene	622-96-8	28%	58	0.12	0.16	0.79	0.44	0.16					N/A	N/A
Heptane	142-82-5	50%	58	0.16	0.15	0.66	0.41	0.20	0.43	ACGIH			0.00046	N/A
Hexachlorobutadiene	87-68-3	6.9%	58	0.80	0.86	1.1	1.1	1.0	0.09	O(P-C)	0.000022	O(I)	0.011	2.2x10⁻⁵
Hexane	110-54-3	71%	58	0.30	0.29	1.6	0.99	0.39	0.7	O(I)			0.00055	N/A
Isopropanol	67-63-0	57%	58	0.59	0.76	2.8	2.7	0.76	7	C			0.00011	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	58	2.5	2.9	15	9.4	3.2	5	I			0.00065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	34%	58	0.23	0.61	4.4	0.57	0.37	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	55%	58	0.61	1.1	4.5	4.1	0.86	0.057	L(I)			0.015	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	1.7%	58	N/A	N/A	0.29	0.30	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	91%	58	1.6	1.0	5.2	3.4	1.9	3	C			0.00063	N/A
Styrene	100-42-5	3.4%	58	N/A	N/A	0.20	0.20	N/A	1	O(I)			N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	14%	58	1.8	8.2	7.4	7.5	3.7			0.000058	O(I)	N/A	2.1×10^{-4}
Tetrachloroethene (PCE)	127-18-4	26%	58	0.081	0.095	0.34	0.30	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	43%	58	0.23	0.23	0.94	0.62	0.28	0.035	R			0.0081	N/A
Toluene	108-88-3	81%	58	0.57	0.57	3.5	1.8	0.72	5	O(I)			0.00014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	48%	58	0.35	0.44	0.77	0.69	0.45					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.4%	58	0.55	0.51	0.71	0.69	0.67	0.2	O(H)			0.0033	N/A
1,1,1-Trichloroethane	71-55-6	12%	58	0.06	0.076	0.24	0.24	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	6.9%	58	N/A	N/A	0.41	0.41	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	6.9%	58	N/A	N/A	0.30	0.31	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	76%	58	1.0	0.38	2.6	1.7	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	5.2%	58	0.064	0.14	0.22	0.22	0.098	0.006	L(P)			0.016	N/A
1,2,4-Trimethylbenzene	95-63-6	22%	58	0.14	0.16	0.69	0.39	0.17	0.007	L(R(p))			0.025	N/A
Vinyl Chloride	75-01-4	8.6%	58	0.10	0.61	3.8	0.22	0.24	0.1	O(I)	0.0000088	O(I)	0.0024	2.1×10^{-6}
Vinylidene Chloride	75-35-4	6.9%	58	0.059	0.11	0.62	0.63	0.083	0.2	O(I)			0.00042	N/A
o-Xylene	95-47-6	21%	58	0.082	0.082	0.48	0.14	0.10	0.1	O(I)			0.001	N/A
m+p-Xylenes	106-42-3	74%	58	0.28	0.22	1.2	1.2	0.33	0.1	O(I)			0.0033	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	55	10	7.9	40	33	12	31	A			0.0004	N/A
Acrolein	107-02-8	96%	26	1.7	1.3	5.1	4.6	2.2	0.00002	O(I)			110	N/A
Benzene	71-43-2	95%	55	0.89	0.61	4.1	2.2	1.1	0.03	O(I)	0.0000078	O(I)	0.035	8.2x10⁻⁶
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	55	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	42%	55	0.35	0.47	1.8	1.7	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	18%	55	0.051	0.071	0.18	0.17	0.069	0.002	O(I)	0.00003	O(I)	0.034	2.1x10⁻⁶
Carbon Disulfide	75-15-0	9.1%	55	0.056	0.059	0.11	0.11	0.068	0.7	O(I)			0.000098	N/A
Carbon Tetrachloride	56-23-5	18%	55	0.16	0.23	0.75	0.38	0.22	0.19	O(D-A)	0.000015	O(I)	0.0012	3.3x10⁻⁶
Chlorobenzene	108-90-7	0%	55	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	18%	55	0.032	0.034	0.10	0.10	0.04	10	O(I)			0.000004	N/A
Chloroform	67-66-3	15%	55	0.054	0.059	0.30	0.30	0.068	0.098	O(A)	0.000023	I	0.0007	1.6x10⁻⁶
Chloromethane	74-87-3	100%	55	1.0	0.33	1.8	1.6	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	29%	55	0.19	0.48	2.4	1.7	0.31	6	I			0.000051	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.5%	55	0.25	0.047	0.42	0.32	0.26					N/A	N/A
p-Dichlorobenzene	106-46-7	18%	55	0.078	0.11	0.48	0.42	0.11	0.8	O(I)	0.000011	O(C)	0.00014	1.2x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	55	2.4	0.89	4.0	3.8	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	16%	55	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.8%	55	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.8%	55	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	18%	55	0.14	0.24	0.97	0.94	0.19	1	O(A)	4.7x10⁻⁷	O(I)	0.00019	9.0x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	55	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	55	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.6%	55	5.8	0.013	5.9	3.5	5.8					N/A	N/A
1,4-Dioxane	123-91-1	16%	55	0.12	0.18	0.35	0.35	0.16	3.6	O(D-A)	0.0000077	O(C)	0.000044	1.2x10⁻⁶
Ethanol	64-17-5	100%	55	26	23	93	88	31	100	L(IDEM)			0.00031	N/A
Ethyl Acetate	141-78-6	71%	55	0.43	0.54	2.7	1.9	0.54	0.37	ACGIH			0.0015	N/A
Ethylbenzene	100-41-4	51%	55	0.13	0.091	0.43	0.38	0.16	1	O(I)	0.0000025	C	0.00016	3.9x10⁻⁷
p-Ethyltoluene	622-96-8	15%	55	0.089	0.11	0.49	0.39	0.12					N/A	N/A
Heptane	142-82-5	80%	55	0.28	0.18	0.78	0.70	0.33	0.43	ACGIH			0.00076	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.38	0.39	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	80%	55	0.35	0.29	1.5	0.95	0.42	0.7	O(I)			0.0006	N/A
Isopropanol	67-63-0	96%	55	1.3	1.1	4.9	4.2	1.5	7	C			0.00022	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	95%	55	2.1	1.6	7.1	6.8	2.5	5	I			0.0005	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	11%	55	0.13	0.32	0.57	0.36	0.20	3	O(I)			0.000068	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	11%	55	0.23	0.53	2.7	0.49	0.35	0.057	L(I)			0.0062	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	55	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	100%	55	1.6	1.0	3.4	3.3	1.9	3	C			0.00063	N/A
Styrene	100-42-5	7.3%	55	0.081	0.16	0.60	0.40	0.12	1	O(I)			0.00012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	3.6%	55	N/A	N/A	0.33	0.33	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	27%	55	0.044	0.071	0.35	0.16	0.059	0.035	R			0.0017	N/A
Toluene	108-88-3	98%	55	0.68	0.41	2.1	1.8	0.75	5	O(I)			0.00015	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	73%	55	0.51	0.21	0.84	0.77	0.55					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	20%	55	0.066	0.066	0.22	0.22	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	5.5%	55	1.7	0.06	2.1	1.7	1.7	0.4	O(P-C)	0.000016	O(I)	0.0042	2.7×10^{-5}
Trichloroethene (TCE)	79-01-6	9.1%	55	N/A	N/A	0.13	0.13	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	96%	55	1.2	0.30	2.0	1.6	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	3.6%	55	0.054	0.074	0.44	0.34	0.074	0.006	L(P)			0.012	N/A
1,2,4-Trimethylbenzene	95-63-6	15%	55	0.43	0.15	1.2	0.79	0.46	0.007	L(R(p))			0.066	N/A
Vinyl Acetate	108-05-4	100%	19	1.5	1.4	5.5	4.9	2.1	0.2	O(I)			0.01	N/A
Vinyl Chloride	75-01-4	0%	55	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	55	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	1.8%	55	N/A	N/A	0.48	0.16	N/A	0.1	O(I)			N/A	N/A
m+p-Xylenes	106-42-3	65%	55	0.33	0.28	1.3	1.3	0.40	0.1	O(I)			0.004	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	89%	55	6.9	9.3	50	29	9.0	31	A			0.00029	N/A
Acrolein	107-02-8	78%	45	1.5	0.78	3.5	3.0	1.7	0.00002	O(I)			84	N/A
Benzene	71-43-2	91%	55	0.51	3.5	3.9	1.3	0.30	0.03	O(I)	0.0000078	O(I)	0.01	2.3×10^{-6}
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	1.8%	55	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	0%	55	N/A	N/A	0.61	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	1.8%	55	N/A	N/A	0.18	0.18	N/A	0.002	O(I)	0.00003	O(I)	N/A	N/A
Carbon Disulfide	75-15-0	9.1%	55	0.16	0.034	0.34	0.19	0.17	0.7	O(I)			0.00024	N/A
Carbon Tetrachloride	56-23-5	64%	55	0.29	0.13	0.50	0.50	0.31	0.19	O(D-A)	0.000015	O(I)	0.0017	4.7×10^{-6}
Chlorobenzene	108-90-7	0%	55	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.8%	55	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	11%	55	0.059	0.038	0.20	0.15	0.068	0.098	O(A)	0.000023	I	0.0007	1.6×10^{-6}
Chloromethane	74-87-3	91%	55	0.82	0.33	1.5	1.4	0.91	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	27%	55	0.065	0.065	0.24	0.21	0.083	6	I			0.000014	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	55	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.6%	55	0.078	0.17	0.96	0.09	0.11					N/A	N/A
p-Dichlorobenzene	106-46-7	36%	55	0.24	0.53	3.2	1.3	0.36	0.8	O(I)	0.000011	O(C)	0.00045	4.0×10^{-6}
o-Dichlorobenzene	95-50-1	0%	55	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	89%	55	1.9	0.84	3.5	3.1	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.8%	55	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	55	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	16%	55	0.08	0.12	0.49	0.29	0.11	1	O(A)	4.7×10^{-7}	O(I)	0.00011	5.1×10^{-8}
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	55	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	55	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	55	N/A	N/A	0.35	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	20%	55	0.10	0.26	1.8	0.35	0.16	3.6	O(D-A)	0.0000077	O(C)	0.000045	1.2×10^{-6}
Ethanol	64-17-5	64%	55	24	45	290	120	35	100	L(IDEM)			0.00035	N/A
Ethyl Acetate	141-78-6	53%	55	0.24	0.31	1.3	1.2	0.31	0.37	ACGIH			0.00085	N/A
Ethylbenzene	100-41-4	38%	55	0.16	0.052	0.30	0.26	0.16	1	O(I)	0.0000025	C	0.00016	4.1×10^{-7}
p-Ethyltoluene	622-96-8	3.6%	55	0.20	0.0093	0.25	0.16	0.20					N/A	N/A
Heptane	142-82-5	58%	55	0.19	0.15	0.49	0.45	0.22	0.43	ACGIH			0.00051	N/A
Hexachlorobutadiene	87-68-3	0%	55	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	71%	55	0.29	0.14	0.77	0.60	0.32	0.7	O(I)			0.00046	N/A
Isopropanol	67-63-0	49%	55	0.66	1.1	5.5	3.7	0.91	7	C			0.00013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	84%	55	1.4	1.0	4.9	3.8	1.7	5	I			0.00033	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	56%	55	0.23	0.23	1.0	0.86	0.29	3	O(I)			0.000096	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	73%	55	0.37	0.45	2.2	1.5	0.49	0.057	L(I)			0.0086	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	55	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	87%	55	0.52	0.41	2.2	1.4	0.62	3	C			0.00021	N/A
Styrene	100-42-5	5.5%	55	0.072	0.19	1.1	0.32	0.12	1	O(I)			0.00012	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	11%	55	0.12	0.31	2.2	0.30	0.20	0.27	O(A)	0.0000059	O(C)	0.00073	1.2×10^{-6}
Tetrahydrofuran (THF)	109-99-9	18%	55	0.065	0.097	0.35	0.32	0.089	0.035	R			0.0025	N/A
Toluene	108-88-3	91%	55	0.53	0.29	1.4	1.2	0.60	5	O(I)			0.00012	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	82%	55	0.52	0.14	0.84	0.69	0.56					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	1.8%	55	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	55	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	1.8%	55	N/A	N/A	0.21	0.13	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	91%	55	0.96	0.31	1.6	1.4	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	3.6%	55	N/A	N/A	0.18	0.18	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	36%	55	0.17	0.054	0.39	0.31	0.18	0.007	L(R(p))			0.025	N/A
Vinyl Acetate	108-05-4	87%	55	2.6	3.1	16	9.5	3.3	0.2	O(I)			0.017	N/A
Vinyl Chloride	75-01-4	1.8%	55	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	55	N/A	N/A	0.12	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	36%	55	0.15	0.043	0.30	0.23	0.16	0.1	O(I)			0.0016	N/A
m+p-Xylenes	106-42-3	55%	55	0.36	0.18	0.74	0.69	0.40	0.1	O(I)			0.004	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Acetone	67-64-1	95%	59	4.0	3.1	16	14	4.8	31	A			0.00015	N/A
Acrolein	107-02-8	86%	59	1.0	0.80	3.7	3.0	1.2	0.00002	O(I)			60	N/A
Benzene	71-43-2	98%	59	0.57	0.29	1.3	1.3	0.64	0.03	O(I)	0.0000078	O(I)	0.021	5.0x10⁻⁶
Benzyl Chloride	100-44-7	0%	59	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	59	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	59	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	36%	59	0.27	0.14	0.66	0.62	0.30	0.005	O(I)			0.06	N/A
1,3-Butadiene	106-99-0	31%	59	0.10	0.046	0.33	0.20	0.11	0.002	O(I)	0.00003	O(I)	0.057	3.4x10⁻⁶
Carbon Disulfide	75-15-0	12%	59	0.19	0.027	0.34	0.23	0.20	0.7	O(I)			0.00028	N/A
Carbon Tetrachloride	56-23-5	10%	59	0.33	0.06	0.57	0.50	0.35	0.19	O(D-A)	0.000015	O(I)	0.0018	5.2x10⁻⁶
Chlorobenzene	108-90-7	1.7%	59	N/A	N/A	0.41	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	59	N/A	N/A	0.16	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	10%	59	0.16	0.041	0.39	0.20	0.16	0.098	O(A)	0.000023	I	0.0016	3.7x10⁻⁶
Chloromethane	74-87-3	95%	59	0.87	0.45	3.8	1.1	0.97	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	15%	59	0.11	0.041	0.38	0.18	0.12	6	I			0.00002	N/A
Dibromochloromethane	124-48-1	0%	59	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	59	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	59	N/A	N/A	0.13	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	14%	59	0.26	0.12	1.0	0.50	0.29	0.8	O(I)	0.000011	O(C)	0.00037	3.2x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	59	N/A	N/A	0.24	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	59	2.6	1.5	13	2.9	2.9	1.5	ACGIH			0.0019	N/A
1,1-Dichloroethane	75-34-3	0%	59	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.7%	59	N/A	N/A	0.20	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.7%	59	N/A	N/A	0.16	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.7%	59	N/A	N/A	0.20	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	64%	59	0.18	0.13	1.0	0.32	0.21	1	O(A)	4.7x10⁻⁷	O(I)	0.00021	9.9x10⁻⁸
1,2-Dichloropropane	78-87-5	3.4%	59	0.14	0.025	0.28	0.11	0.15	0.004	O(I)	0.000019	O(R)	0.037	2.8x10⁻⁶
c-1,3-Dichloropropene	10061-01-3	0%	59	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	59	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.4%	59	N/A	N/A	0.21	0.14	N/A					N/A	N/A
1,4-Dioxane	123-91-1	3.4%	59	0.18	0.05	0.47	0.12	0.20	3.6	O(D-A)	0.0000077	O(C)	0.000055	1.5x10⁻⁶
Ethanol	64-17-5	93%	59	17	16	110	44	20	100	L(IDEM)			0.0002	N/A
Ethyl Acetate	141-78-6	19%	59	0.18	0.12	0.79	0.47	0.20	0.37	ACGIH			0.00054	N/A
Ethylbenzene	100-41-4	5.1%	59	0.30	0.0078	0.35	0.30	0.31	1	O(I)	0.0000025	C	0.00031	7.7x10⁻⁷
p-Ethyltoluene	622-96-8	1.7%	59	N/A	N/A	0.14	0.14	N/A					N/A	N/A
Heptane	142-82-5	63%	59	0.19	0.12	0.70	0.49	0.22	0.43	ACGIH			0.00051	N/A
Hexachlorobutadiene	87-68-3	0%	59	N/A	N/A	0.33	0.33	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	78%	59	0.25	0.20	1.1	0.84	0.29	0.7	O(I)			0.00042	N/A
Isopropanol	67-63-0	88%	59	0.44	0.37	1.8	1.4	0.52	7	C			0.000074	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	93%	59	1.7	0.83	5.0	3.2	1.9	5	I			0.00037	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	42%	59	0.16	0.066	0.45	0.29	0.17	3	O(I)			0.000056	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	69%	59	0.25	0.18	0.98	0.66	0.29	0.057	L(I)			0.0051	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	59	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	92%	59	0.67	0.57	2.1	1.7	0.79	3	C			0.00026	N/A
Styrene	100-42-5	0%	59	N/A	N/A	0.10	0.11	N/A	1	O(I)			N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.7%	59	N/A	N/A	0.21	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	3.4%	59	0.35	0.15	1.2	0.26	0.39	0.27	O(A)	0.0000059	O(C)	0.0014	2.3x10⁻⁶
Tetrahydrofuran (THF)	109-99-9	14%	59	0.27	0.053	0.59	0.35	0.29	0.035	R			0.0082	N/A
Toluene	108-88-3	95%	59	0.53	0.45	2.4	1.8	0.60	5	O(I)			0.00012	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	93%	59	0.51	0.23	1.8	0.69	0.56					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	59	N/A	N/A	0.37	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	59	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	59	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	1.7%	59	N/A	N/A	1.9	0.19	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	98%	59	1.3	0.67	6.1	1.5	1.5	0.7	L(R(h))			0.0021	N/A
1,3,5-Trimethylbenzene	108-67-8	0%	59	N/A	N/A	0.21	0.21	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	17%	59	0.16	0.043	0.39	0.26	0.17	0.007	L(R(p))			0.024	N/A
Vinyl Acetate	108-05-4	54%	59	1.9	3.2	14	12	2.6	0.2	O(I)			0.013	N/A
Vinyl Chloride	75-01-4	1.7%	59	N/A	N/A	0.28	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.7%	59	N/A	N/A	0.55	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	17%	59	0.065	0.069	0.35	0.24	0.082	0.1	O(I)			0.00082	N/A
m+p-Xylenes	106-42-3	20%	59	0.37	0.26	1.0	0.91	0.43	0.1	O(I)			0.0043	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	94%	32	1.8	1.3	5.3	4.8	2.2	0.03	O(I)	0.0000078	O(I)	0.073	1.7x10⁻⁵
Bromomethane	74-83-9	0%	32	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	32	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	32	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	3.1%	32	N/A	N/A	1.1	0.98	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	32	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	81%	32	0.84	0.41	1.7	1.6	0.97	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	50%	32	0.32	0.19	0.83	0.79	0.38	6	I			0.000063	N/A
1,2-Dibromoethane	106-93-4	0%	32	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	32	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	6.3%	32	N/A	N/A	0.30	0.30	N/A	0.8	O(I)	0.000011	O(C)	N/A	N/A
o-Dichlorobenzene	95-50-1	0%	32	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	32	2.1	0.54	3.3	3.2	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	32	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	32	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	32	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	50%	32	1.4	2.2	8.7	8.0	2.0	1	O(A)	4.7x10⁻⁷	O(I)	0.002	9.6x10⁻⁷
1,2-Dichloropropane	78-87-5	13%	32	0.79	0.51	3.0	1.8	0.97	0.004	O(I)	0.000019	O(R)	0.24	1.8x10⁻⁵
c-1,3-Dichloropropene	10061-01-3	0%	32	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	32	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	28%	32	2.9	0.48	4.4	4.2	3.0					N/A	N/A
Ethylbenzene	100-41-4	100%	32	0.78	0.52	2.3	2.0	0.95	1	O(I)	0.0000025	C	0.00095	2.4x10⁻⁶
p-Ethyltoluene	622-96-8	91%	32	1.6	2.0	9.8	4.9	2.3					N/A	N/A
Heptane	142-82-5	94%	32	0.94	0.82	3.1	2.6	1.2	0.43	ACGIH			0.0029	N/A
Hexachlorobutadiene	87-68-3	0%	32	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	84%	32	1.3	1.0	3.6	3.4	1.6	0.7	O(I)			0.0023	N/A
Propene	115-07-1	100%	32	3.6	1.7	8.2	7.6	4.1	3	C			0.0014	N/A
Styrene	100-42-5	100%	32	3.0	3.5	18	8.5	4.1	1	O(I)			0.0041	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	32	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	32	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	32	5.7	4.1	21	14	6.8	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	38%	32	0.71	0.53	2.5	2.0	0.84					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.1%	32	N/A	N/A	0.48	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	32	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	32	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	25%	32	1.2	0.49	3.0	2.1	1.3	0.6	O(C)	0.000002	O(C)	0.0022	2.7x10⁻⁶
Trichlorofluoromethane (F-11)	75-69-4	75%	32	0.84	0.29	1.6	1.3	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	88%	32	2.0	2.4	13	6.4	2.7	0.006	L(P)			0.45	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	32	10	12	55	41	14	0.007	L(R(p))			2.0	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	32	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	32	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	91%	32	1.3	1.0	3.8	3.5	1.7	0.1	O(I)			0.017	N/A
m+p-Xylenes	106-42-3	100%	32	2.7	1.7	7.3	6.1	3.3	0.1	O(I)			0.033	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	98%	50	1.1	0.54	3.2	2.2	1.2	0.03	O(I)	0.0000078	O(I)	0.04	9.5×10^{-6}
Bromomethane	74-83-9	24%	50	0.047	0.058	0.35	0.35	0.062	0.005	O(I)			0.012	N/A
Carbon Tetrachloride	56-23-5	2.0%	50	N/A	N/A	0.69	0.69	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	4.0%	50	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	10%	50	N/A	N/A	0.63	0.63	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	2.0%	50	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	50	0.99	0.29	2.0	1.5	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	52%	50	0.31	0.17	0.86	0.72	0.34	6	I			0.000057	N/A
1,2-Dibromoethane	106-93-4	0%	50	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	2.0%	50	N/A	N/A	0.30	0.30	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	50	0.18	0.35	1.0	0.84	0.27	0.8	O(I)	0.000011	O(C)	0.00034	3.0×10^{-6}
o-Dichlorobenzene	95-50-1	2.0%	50	N/A	N/A	0.36	0.36	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	94%	50	2.4	0.94	5.0	3.9	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	50	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	2.0%	50	N/A	N/A	1.3	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	6.0%	50	0.11	0.51	0.51	0.51	0.24	0.03	R			0.0079	N/A
Dichloromethane	75-09-2	70%	50	2.3	2.8	13	11	3.0	1	O(A)	4.7×10^{-7}	O(I)	0.003	1.4×10^{-6}
1,2-Dichloropropane	78-87-5	24%	50	0.34	0.55	2.8	1.7	0.46	0.004	O(I)	0.000019	O(R)	0.12	8.8×10^{-6}
c-1,3-Dichloropropene	10061-01-3	0%	50	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	16%	50	0.15	0.32	0.77	0.77	0.23	0.02	L(IDEM)	0.000004		0.011	9.1×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.0%	50	N/A	N/A	3.7	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	96%	50	0.74	0.48	2.3	1.9	0.82	1	O(I)	0.0000025	C	0.00082	2.1×10^{-6}
p-Ethyltoluene	622-96-8	80%	50	0.54	0.74	4.9	1.7	0.74					N/A	N/A
Heptane	142-82-5	98%	50	0.57	0.36	1.6	1.5	0.66	0.43	ACGIH			0.0015	N/A
Hexachlorobutadiene	87-68-3	0%	50	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	50	1.1	0.77	3.8	3.1	1.3	0.7	O(I)			0.0018	N/A
Propene	115-07-1	100%	50	1.7	0.76	3.7	3.3	1.9	3	C			0.00063	N/A
Styrene	100-42-5	88%	50	1.8	1.6	6.4	5.5	2.2	1	O(I)			0.0022	N/A
1,1,2,2-Tetrachloroethane	79-34-5	16%	50	0.075	0.082	0.48	0.41	0.096			0.000058	O(I)	N/A	5.6×10^{-6}
Tetrachloroethene (PCE)	127-18-4	16%	50	0.081	0.10	0.75	0.75	0.11	0.27	O(A)	0.0000059	O(C)	0.0004	6.4×10^{-7}
Toluene	108-88-3	100%	50	5.3	6.8	42	21	6.8	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	54%	50	0.59	0.20	1.5	0.92	0.64					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	50	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	2.0%	50	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	12%	50	0.082	0.11	0.44	0.44	0.11	0.4	O(P-C)	0.000016	O(I)	0.00027	1.7×10^{-6}
Trichloroethene (TCE)	79-01-6	2.0%	50	N/A	N/A	0.81	0.81	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	90%	50	1.1	0.37	2.0	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	82%	50	0.64	0.69	4.3	2.2	0.84	0.006	L(P)			0.14	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	50	2.9	2.7	16	8.9	3.6	0.007	L(R(p))			0.51	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	2.0%	50	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	2.0%	50	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	86%	50	1.2	1.7	12	2.3	1.6	0.1	O(I)			0.016	N/A
m+p-Xylenes	106-42-3	100%	50	2.1	1.5	8.0	5.6	2.5	0.1	O(I)			0.025	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	47	1.5	0.77	4.2	3.5	1.7	0.03	O(I)	0.0000078	O(I)	0.057	1.3×10^{-5}
Bromomethane	74-83-9	8.5%	47	0.058	0.093	0.39	0.39	0.081	0.005	O(I)			0.016	N/A
Carbon Tetrachloride	56-23-5	2.1%	47	N/A	N/A	0.82	0.82	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	6.4%	47	N/A	N/A	0.18	0.18	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	21%	47	0.087	0.14	0.77	0.24	0.12	10	O(I)			0.000012	N/A
Chloroform	67-66-3	6.4%	47	0.063	0.13	0.20	0.20	0.098	0.098	O(A)	0.000023	I	0.001	2.2×10^{-6}
Chloromethane	74-87-3	91%	47	0.80	0.39	1.7	1.6	0.91	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	68%	47	0.38	0.25	1.3	0.89	0.41	6	I			0.000069	N/A
1,2-Dibromoethane	106-93-4	0%	47	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	47	N/A	N/A	0.48	0.48	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	26%	47	0.52	0.32	1.6	1.3	0.60	0.8	O(I)	0.000011	O(C)	0.00075	6.6×10^{-6}
o-Dichlorobenzene	95-50-1	0%	47	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	47	2.3	0.64	3.6	3.1	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	4.3%	47	N/A	N/A	1.3	1.3	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	6.4%	47	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	2.1%	47	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	47%	47	1.2	3.1	15	10	2.0	1	O(A)	4.7×10^{-7}	O(I)	0.002	9.6×10^{-7}
1,2-Dichloropropane	78-87-5	0%	47	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	47	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	4.3%	47	0.068	0.15	0.41	0.41	0.11	0.02	L(IDEM)	0.000004		0.0054	4.4×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	4.3%	47	0.15	0.77	3.9	0.42	0.35					N/A	N/A
Ethylbenzene	100-41-4	100%	47	1.0	1.0	6.9	2.3	1.3	1	O(I)	0.0000025	C	0.0013	3.1×10^{-6}
p-Ethyltoluene	622-96-8	96%	47	1.4	1.8	9.7	4.9	1.9					N/A	N/A
Heptane	142-82-5	100%	47	0.74	0.41	2.2	1.8	0.86	0.43	ACGIH			0.002	N/A
Hexachlorobutadiene	87-68-3	2.1%	47	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	47	1.4	1.4	7.7	5.6	1.8	0.7	O(I)			0.0026	N/A
Propene	115-07-1	98%	47	2.4	1.1	5.5	5.0	2.6	3	C			0.00086	N/A
Styrene	100-42-5	96%	47	1.5	1.6	7.5	5.5	1.9	1	O(I)			0.0019	N/A
1,1,2,2-Tetrachloroethane	79-34-5	21%	47	0.089	0.096	0.48	0.48	0.12			0.000058	O(I)	N/A	6.8×10^{-6}
Tetrachloroethene (PCE)	127-18-4	6.4%	47	N/A	N/A	0.41	0.41	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	47	5.7	3.2	17	13	6.4	5	O(I)			0.0013	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	49%	47	0.57	0.077	0.84	0.77	0.58					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	2.1%	47	N/A	N/A	0.54	0.54	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	6.4%	47	0.093	0.28	0.98	0.98	0.16	1	O(C)			0.00016	N/A
1,1,2-Trichloroethane	79-00-5	0%	47	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	4.3%	47	0.081	0.18	0.32	0.32	0.13	0.6	O(C)	0.000002	O(C)	0.00021	2.6×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	83%	47	1.1	0.31	1.8	1.7	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	85%	47	1.5	2.2	13	5.4	2.1	0.006	L(P)			0.34	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	47	4.9	6.9	35	21	6.9	0.007	L(R(p))			0.98	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	47	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	4.3%	47	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	96%	47	1.2	0.78	4.4	3.2	1.4	0.1	O(I)			0.014	N/A
m+p-Xylenes	106-42-3	100%	47	2.8	2.4	17	5.6	3.4	0.1	O(I)			0.034	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	47	9.5	8.3	33	31	12	31	A			0.00038	N/A
Benzene	71-43-2	89%	47	0.86	0.64	3.9	2.2	1.0	0.03	O(I)	0.0000078	O(I)	0.034	8.0x10⁻⁶
Benzyl Chloride	100-44-7	11%	47	0.098	0.27	1.6	0.46	0.17	0.00066	ACGIH	0.000049	O(C)	0.25	8.1x10⁻⁶
Bromodichloromethane	75-27-4	4.3%	47	N/A	N/A	0.067	0.067	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	47	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	19%	47	0.05	0.07	0.42	0.43	0.07	0.005	O(I)			0.014	N/A
1,3-Butadiene	106-99-0	11%	47	0.031	0.075	0.60	0.60	0.051	0.002	O(I)	0.00003	O(I)	0.025	1.5x10⁻⁶
Carbon Disulfide	75-15-0	62%	47	0.93	1.0	3.5	3.1	1.2	0.7	O(I)			0.0017	N/A
Carbon Tetrachloride	56-23-5	6.4%	47	N/A	N/A	0.063	0.063	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	4.3%	47	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	23%	47	0.13	0.25	0.74	0.69	0.20	10	O(I)			0.00002	N/A
Chloroform	67-66-3	15%	47	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	87%	47	1.9	3.5	17	11	2.9	0.09	O(I)			0.032	N/A
Cyclohexane	100-82-7	36%	47	0.076	0.10	0.45	0.32	0.10	6	I			0.000017	N/A
Dibromochloromethane	124-48-1	0%	47	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	47	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	6.4%	47	0.14	0.36	0.82	0.84	0.23					N/A	N/A
p-Dichlorobenzene	106-46-7	11%	47	0.12	0.35	0.35	0.35	0.21	0.8	O(I)	0.000011	O(C)	0.00026	2.3x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	47	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	47	6.4	17	98	54	11	1.5	ACGIH			0.0073	N/A
1,1-Dichloroethane	75-34-3	4.3%	47	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	47	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	47	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	2.1%	47	N/A	N/A	0.04	0.04	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	36%	47	0.15	0.22	0.69	0.69	0.20	1	O(A)	4.7x10⁻⁷	O(I)	0.0002	9.6x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	47	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	47	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	11%	47	N/A	N/A	0.23	0.22	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	8.5%	47	N/A	N/A	2.5	2.5	N/A					N/A	N/A
1,4-Dioxane	123-91-1	4.3%	47	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	98%	47	36	40	140	130	47	100	L(IDEM)			0.00047	N/A
Ethyl Acetate	141-78-6	64%	47	0.19	0.35	2.2	0.68	0.28	0.37	ACGIH			0.00076	N/A
Ethylbenzene	100-41-4	70%	47	0.35	0.28	1.0	0.91	0.42	1	O(I)	0.0000025	C	0.00042	1.1x10⁻⁶
p-Ethyltoluene	622-96-8	28%	47	0.24	0.33	1.3	0.98	0.32					N/A	N/A
Heptane	142-82-5	72%	47	0.21	0.19	0.82	0.66	0.26	0.43	ACGIH			0.0006	N/A
Hexachlorobutadiene	87-68-3	0%	47	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	81%	47	0.56	0.63	2.8	2.2	0.70	0.7	O(I)			0.001	N/A
Isopropanol	67-63-0	62%	47	1.0	1.2	5.0	3.9	1.4	7	C			0.00019	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	83%	47	1.3	1.1	5.0	3.8	1.6	5	I			0.00031	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	34%	47	0.17	0.22	2.0	2.0	0.23	3	O(I)			0.000077	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	40%	47	1.6	4.1	15	14	2.7	0.057	L(I)			0.047	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	21%	47	0.051	0.061	0.25	0.25	0.065	3	O(I)	2.6×10^{-7}	O(C)	0.000022	1.7×10^{-8}
Propene	115-07-1	98%	47	3.1	4.1	18	13	4.1	3	C			0.0014	N/A
Styrene	100-42-5	60%	47	1.3	3.5	23	6.0	2.2	1	O(I)			0.0022	N/A
1,1,2,2-Tetrachloroethane	79-34-5	19%	47	N/A	N/A	0.69	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	15%	47	0.088	0.11	0.99	1.0	0.12	0.27	O(A)	0.0000059	O(C)	0.00043	6.8×10^{-7}
Tetrahydrofuran (THF)	109-99-9	47%	47	0.10	0.13	0.59	0.27	0.13	0.035	R			0.0038	N/A
Toluene	108-88-3	98%	47	2.5	2.1	7.5	7.2	3.0	5	O(I)			0.0006	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	43%	47	0.63	0.21	1.4	1.2	0.68					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	47	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	8.5%	47	0.082	0.13	1.0	0.98	0.11	1	O(C)			0.00011	N/A
1,1,2-Trichloroethane	79-00-5	15%	47	N/A	N/A	0.76	0.76	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	11%	47	0.11	0.23	1.2	1.2	0.17	0.6	O(C)	0.000002	O(C)	0.00028	3.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	96%	47	1.0	0.27	1.6	1.4	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	34%	47	0.16	0.28	1.3	0.79	0.24	0.006	L(P)			0.039	N/A
1,2,4-Trimethylbenzene	95-63-6	36%	47	0.54	1.2	6.3	3.1	0.89	0.007	L(R(p))			0.13	N/A
Vinyl Chloride	75-01-4	8.5%	47	N/A	N/A	0.18	0.17	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	47	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	30%	47	0.69	0.20	1.3	1.2	0.78	0.1	O(I)			0.0078	N/A
m+p-Xylenes	106-42-3	94%	47	1.0	0.95	3.3	2.9	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	50	14	7.4	42	33	15	31	A			0.00049	N/A
Benzene	71-43-2	100%	50	0.86	0.54	2.7	2.4	0.99	0.03	O(I)	0.0000078	O(I)	0.033	7.7×10^{-6}
Benzyl Chloride	100-44-7	0%	50	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	6.0%	50	N/A	N/A	0.067	0.067	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	50	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	38%	50	0.11	0.17	0.54	0.47	0.15	0.005	O(I)			0.03	N/A
1,3-Butadiene	106-99-0	36%	50	0.22	0.44	2.2	1.2	0.33	0.002	O(I)	0.00003	O(I)	0.17	9.9×10^{-6}
Carbon Disulfide	75-15-0	66%	50	0.081	0.072	0.45	0.47	0.096	0.7	O(I)			0.00014	N/A
Carbon Tetrachloride	56-23-5	0%	50	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	2.0%	50	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	2.0%	50	N/A	N/A	0.80	0.79	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	34%	50	N/A	N/A	0.15	0.12	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	92%	50	1.1	1.1	6.4	3.9	1.4	0.09	O(I)			0.015	N/A
Cyclohexane	100-82-7	58%	50	0.089	0.10	0.45	0.28	0.12	6	I			0.000019	N/A
Dibromochloromethane	124-48-1	2.0%	50	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	50	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	2.0%	50	N/A	N/A	0.35	0.35	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	6.0%	50	0.16	0.50	0.41	0.41	0.29	0.8	O(I)	0.000011	O(C)	0.00036	3.2×10^{-6}
o-Dichlorobenzene	95-50-1	0%	50	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	50	2.2	0.94	3.5	3.3	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	50	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	50	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	50	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	50	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	68%	50	0.26	0.62	4.4	0.62	0.42	1	O(A)	4.7×10^{-7}	O(I)	0.00042	2.0×10^{-7}
1,2-Dichloropropane	78-87-5	4.0%	50	N/A	N/A	0.23	0.23	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	2.0%	50	N/A	N/A	0.14	0.14	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	18%	50	N/A	N/A	0.27	0.24	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	36%	50	0.084	0.077	1.8	1.7	0.10					N/A	N/A
1,4-Dioxane	123-91-1	2.0%	50	N/A	N/A	0.22	0.22	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	50	35	21	100	93	40	100	L(IDEM)			0.0004	N/A
Ethyl Acetate	141-78-6	92%	50	0.14	0.14	0.61	0.58	0.18	0.37	ACGIH			0.00048	N/A
Ethylbenzene	100-41-4	90%	50	0.35	0.30	1.4	1.3	0.43	1	O(I)	0.0000025	C	0.00043	1.1×10^{-6}
p-Ethyltoluene	622-96-8	54%	50	0.14	0.17	0.93	0.45	0.19					N/A	N/A
Heptane	142-82-5	74%	50	0.18	0.19	1.1	0.61	0.23	0.43	ACGIH			0.00052	N/A
Hexachlorobutadiene	87-68-3	0%	50	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	50	0.53	0.67	4.5	1.5	0.70	0.7	O(I)			0.001	N/A
Isopropanol	67-63-0	98%	50	9.1	54	390	5.4	23	7	C			0.0032	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	98%	50	1.8	0.83	5.2	3.2	2.0	5	I			0.0004	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	36%	50	0.15	0.23	170	170	0.20	3	O(I)			0.000067	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	78%	50	2.0	2.4	10	7.8	2.6	0.057	L(I)			0.046	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	6.0%	50	0.069	0.17	0.87	0.28	0.11	3	O(I)	2.6×10^{-7}	O(C)	0.000037	2.9×10^{-8}
Propene	115-07-1	96%	50	1.7	3.6	20	12	2.6	3	C			0.00086	N/A
Styrene	100-42-5	76%	50	0.81	1.1	4.8	3.3	1.1	1	O(I)			0.0011	N/A
1,1,2,2-Tetrachloroethane	79-34-5	16%	50	N/A	N/A	0.21	0.19	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	34%	50	0.10	0.095	0.92	0.95	0.13	0.27	O(A)	0.0000059	O(C)	0.00048	7.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	80%	50	0.13	0.18	1.1	0.53	0.18	0.035	R			0.0051	N/A
Toluene	108-88-3	100%	50	2.9	2.5	14	9.8	3.5	5	O(I)			0.0007	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	38%	50	0.47	0.16	0.69	0.61	0.51					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	50	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	52%	50	N/A	N/A	0.16	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	64%	50	N/A	N/A	0.60	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	34%	50	0.097	0.21	1.3	0.91	0.15	0.6	O(C)	0.000002	O(C)	0.00025	3.0×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	50	1.2	0.21	1.8	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	42%	50	0.21	0.31	1.5	0.98	0.29	0.006	L(P)			0.048	N/A
1,2,4-Trimethylbenzene	95-63-6	30%	50	0.21	0.30	1.2	0.69	0.28	0.007	L(R(p))			0.04	N/A
Vinyl Chloride	75-01-4	0%	50	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	2.0%	50	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	54%	50	0.34	0.42	1.8	1.5	0.43	0.1	O(I)			0.0043	N/A
m+p-Xylenes	106-42-3	98%	50	1.2	1.1	5.0	4.3	1.4	0.1	O(I)			0.014	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	59	10	5.7	31	23	11	31	A			0.00036	N/A
Benzene	71-43-2	86%	59	0.77	0.41	1.8	1.7	0.86	0.03	O(I)	0.0000078	O(I)	0.029	$6.7{\times}10^{-6}$
Benzyl Chloride	100-44-7	14%	59	0.57	0.37	2.0	1.9	0.62	0.00066	ACGIH	0.000049	O(C)	0.94	$3.0{\times}10^{-5}$
Bromodichloromethane	75-27-4	17%	59	0.074	0.067	0.71	0.74	0.087			0.000037	C	N/A	$3.2{\times}10^{-6}$
Bromoform	75-25-2	0%	59	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	29%	59	0.47	0.47	1.3	0.93	0.54	0.005	O(I)			0.11	N/A
1,3-Butadiene	106-99-0	15%	59	0.046	0.075	0.13	0.097	0.062	0.002	O(I)	0.00003	O(I)	0.031	$1.9{\times}10^{-6}$
Carbon Disulfide	75-15-0	46%	59	0.04	0.029	0.28	0.28	0.047	0.7	O(I)			0.000067	N/A
Carbon Tetrachloride	56-23-5	1.7%	59	N/A	N/A	0.75	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	8.5%	59	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	8.5%	59	0.058	0.082	0.45	0.45	0.077	10	O(I)			0.0000077	N/A
Chloroform	67-66-3	6.8%	59	N/A	N/A	0.50	0.49	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	90%	59	0.49	0.23	1.3	1.2	0.54	0.09	O(I)			0.006	N/A
Cyclohexane	100-82-7	37%	59	0.15	0.23	0.89	0.58	0.21	6	I			0.000034	N/A
Dibromochloromethane	124-48-1	5.1%	59	0.17	0.75	0.97	0.94	0.34			0.000027	C	N/A	$9.2{\times}10^{-6}$
1,2-Dibromoethane	106-93-4	0%	59	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	10%	59	0.18	0.60	1.0	0.60	0.32					N/A	N/A
p-Dichlorobenzene	106-46-7	10%	59	0.19	0.72	1.1	1.0	0.35	0.8	O(I)	0.000011	O(C)	0.00044	$3.8{\times}10^{-6}$
o-Dichlorobenzene	95-50-1	1.7%	59	N/A	N/A	0.81	0.84	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	90%	59	1.6	0.69	4.3	2.7	1.7	1.5	ACGIH			0.0012	N/A
1,1-Dichloroethane	75-34-3	0%	59	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	19%	59	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	8.5%	59	0.048	0.075	0.40	0.40	0.064	0.06	R			0.0011	N/A
c-1,2-Dichloroethene	156-59-2	24%	59	N/A	N/A	0.41	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	12%	59	0.14	0.12	0.56	0.32	0.17	1	O(A)	$4.7{\times}10^{-7}$	O(I)	0.00017	$8.0{\times}10^{-8}$
1,2-Dichloropropane	78-87-5	0%	59	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	5.1%	59	0.077	0.13	0.41	0.41	0.10					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	6.8%	59	0.068	0.12	0.47	0.45	0.095	0.02	L(IDEM)	0.000004		0.0048	$3.8{\times}10^{-7}$
Dichloro-Tetrafluoroethane (F-114)	76-14-2	24%	59	0.31	0.59	2.7	1.8	0.45					N/A	N/A
1,4-Dioxane	123-91-1	12%	59	0.068	0.083	0.60	0.61	0.086	3.6	O(D-A)	0.0000077	O(C)	0.000024	$6.7{\times}10^{-7}$
Ethanol	64-17-5	92%	59	13	14	51	48	16	100	L(IDEM)			0.00016	N/A
Ethyl Acetate	141-78-6	76%	59	0.21	0.33	1.9	1.2	0.29	0.37	ACGIH			0.00078	N/A
Ethylbenzene	100-41-4	71%	59	0.33	0.37	2.2	1.0	0.42	1	O(I)	0.0000025	C	0.00042	$1.0{\times}10^{-6}$
p-Ethyltoluene	622-96-8	54%	59	0.26	0.33	2.0	0.74	0.33					N/A	N/A
Heptane	142-82-5	69%	59	0.27	0.18	0.74	0.57	0.31	0.43	ACGIH			0.00072	N/A
Hexachlorobutadiene	87-68-3	0%	59	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	81%	59	0.60	0.46	1.9	1.7	0.70	0.7	O(I)			0.001	N/A
Isopropanol	67-63-0	64%	59	1.6	2.4	9.9	9.1	2.1	7	C			0.00031	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	59	1.8	1.6	9.3	5.3	2.2	5	I			0.00044	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	24%	59	0.078	0.082	0.45	0.37	0.094	3	O(I)			0.000031	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	64%	59	1.8	5.3	26	16	3.0	0.057	L(I)			0.053	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	17%	59	N/A	N/A	0.41	0.40	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	59	1.0	0.67	3.4	2.2	1.2	3	C			0.0004	N/A
Styrene	100-42-5	49%	59	0.64	0.94	4.4	2.9	0.85	1	O(I)			0.00085	N/A
1,1,2,2-Tetrachloroethane	79-34-5	14%	59	0.18	0.40	0.70	0.69	0.27			0.000058	O(I)	N/A	1.6×10^{-5}
Tetrachloroethene (PCE)	127-18-4	14%	59	0.075	0.088	0.79	0.81	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	68%	59	0.12	0.24	1.7	0.47	0.17	0.035	R			0.005	N/A
Toluene	108-88-3	100%	59	2.0	1.4	5.2	4.5	2.3	5	O(I)			0.00047	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	15%	59	0.52	0.25	0.84	0.84	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	59	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	20%	59	0.082	0.087	0.54	0.54	0.10	1	O(C)			0.0001	N/A
1,1,2-Trichloroethane	79-00-5	56%	59	0.093	0.17	0.93	0.71	0.13	0.4	O(P-C)	0.000016	O(I)	0.00033	2.1×10^{-6}
Trichloroethene (TCE)	79-01-6	25%	59	0.059	0.051	0.55	0.54	0.07	0.6	O(C)	0.000002	O(C)	0.00012	1.4×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	81%	59	0.79	0.20	1.3	1.2	0.84	0.7	L(R(h))			0.0012	N/A
1,3,5-Trimethylbenzene	108-67-8	49%	59	0.18	0.25	0.79	0.74	0.24	0.006	L(P)			0.04	N/A
1,2,4-Trimethylbenzene	95-63-6	41%	59	0.30	0.33	1.1	0.98	0.37	0.007	L(R(p))			0.053	N/A
Vinyl Chloride	75-01-4	17%	59	0.049	0.074	0.33	0.26	0.064	0.1	O(I)	0.0000088	O(I)	0.00064	5.6×10^{-7}
Vinylidene Chloride	75-35-4	8.5%	59	0.83	1.6	12	1.3	1.2	0.2	O(I)			0.0059	N/A
o-Xylene	95-47-6	36%	59	0.43	0.78	3.7	2.5	0.61	0.1	O(I)			0.0061	N/A
m+p-Xylenes	106-42-3	92%	59	1.0	1.6	9.7	4.0	1.4	0.1	O(I)			0.014	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	93%	58	8.6	7.6	39	24	10	31	A			0.00034	N/A
Benzene	71-43-2	78%	58	0.86	0.51	2.8	2.1	0.96	0.03	O(I)	0.0000078	O(I)	0.032	7.5x10⁻⁶
Benzyl Chloride	100-44-7	47%	58	1.5	1.1	4.1	3.7	1.7	0.00066	ACGIH	0.000049	O(C)	2.6	8.4x10⁻⁵
Bromodichloromethane	75-27-4	17%	58	0.11	0.19	0.36	0.36	0.15			0.000037	C	N/A	5.5x10⁻⁶
Bromoform	75-25-2	1.7%	58	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	53%	58	0.38	0.47	2.0	1.7	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	29%	58	0.084	0.091	0.40	0.29	0.10	0.002	O(I)	0.00003	O(I)	0.052	3.1x10⁻⁶
Carbon Disulfide	75-15-0	21%	58	0.075	0.14	0.65	0.31	0.11	0.7	O(I)			0.00015	N/A
Carbon Tetrachloride	56-23-5	6.9%	58	0.23	0.28	1.9	0.38	0.29	0.19	O(D-A)	0.000015	O(I)	0.0015	4.3x10⁻⁶
Chlorobenzene	108-90-7	6.9%	58	0.083	0.24	0.51	0.21	0.14	1	O(C)			0.00014	N/A
Chloroethane	75-00-3	17%	58	0.10	0.37	0.50	0.45	0.18	10	O(I)			0.000018	N/A
Chloroform	67-66-3	16%	58	0.054	0.036	0.24	0.12	0.059	0.098	O(A)	0.000023	I	0.0006	1.3x10⁻⁶
Chloromethane	74-87-3	78%	58	0.64	0.70	4.2	1.9	0.80	0.09	O(I)			0.0089	N/A
Cyclohexane	100-82-7	76%	58	0.76	1.1	3.7	3.4	1.0	6	I			0.00017	N/A
Dibromochloromethane	124-48-1	1.7%	58	N/A	N/A	0.43	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	58	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	28%	58	0.22	0.58	4.1	0.60	0.35					N/A	N/A
p-Dichlorobenzene	106-46-7	21%	58	0.22	0.60	4.2	0.50	0.37	0.8	O(I)	0.000011	O(C)	0.00046	4.0x10⁻⁶
o-Dichlorobenzene	95-50-1	3.4%	58	0.27	0.23	0.43	0.43	0.32	0.6	R			0.00054	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	58	1.9	1.6	10	3.8	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	3.4%	58	0.049	0.081	0.49	0.26	0.065	0.5	O(H)	0.0000016	O(C)	0.00013	1.0x10⁻⁷
1,2-Dichloroethane	107-06-2	16%	58	0.049	0.065	0.41	0.27	0.061	2.4	O(A)	0.000026	O(I)	0.000025	1.6x10⁻⁶
t-1,2-Dichloroethene	156-60-5	26%	58	0.056	0.064	0.36	0.16	0.067	0.06	R			0.0011	N/A
c-1,2-Dichloroethene	156-59-2	16%	58	0.071	0.12	0.19	0.19	0.099	0.03	R			0.0033	N/A
Dichloromethane	75-09-2	38%	58	0.25	0.38	2.0	1.1	0.34	1	O(A)	4.7x10⁻⁷	O(I)	0.00034	1.6x10⁻⁷
1,2-Dichloropropane	78-87-5	3.4%	58	0.069	0.18	0.25	0.25	0.11	0.004	O(I)	0.000019	O(R)	0.028	2.1x10⁻⁶
c-1,3-Dichloropropene	10061-01-3	8.6%	58	0.10	0.21	0.19	0.19	0.15					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	19%	58	0.10	0.15	0.41	0.29	0.14	0.02	L(IDEM)	0.000004		0.0068	5.4x10⁻⁷
Dichloro-Tetrafluoroethane (F-114)	76-14-2	26%	58	0.50	0.77	4.0	1.9	0.68					N/A	N/A
1,4-Dioxane	123-91-1	21%	58	0.12	0.40	0.97	0.86	0.21	3.6	O(D-A)	0.0000077	O(C)	0.000058	1.6x10⁻⁶
Ethanol	64-17-5	84%	58	11	17	100	42	15	100	L(IDEM)			0.00015	N/A
Ethyl Acetate	141-78-6	74%	58	1.0	3.3	25	4.3	1.8	0.37	ACGIH			0.0049	N/A
Ethylbenzene	100-41-4	84%	58	0.34	0.33	1.7	1.4	0.42	1	O(I)	0.0000025	C	0.00042	1.0x10⁻⁶
p-Ethyltoluene	622-96-8	59%	58	0.59	1.1	6.3	3.1	0.84					N/A	N/A
Heptane	142-82-5	83%	58	0.40	0.49	3.1	1.4	0.53	0.43	ACGIH			0.0012	N/A
Hexachlorobutadiene	87-68-3	6.9%	58	0.70	2.1	1.8	1.1	1.2	0.09	O(P-C)	0.000022	O(I)	0.013	2.6x10⁻⁵
Hexane	110-54-3	83%	58	0.60	0.67	4.5	1.9	0.77	0.7	O(I)			0.0011	N/A
Isopropanol	67-63-0	74%	58	3.9	5.7	26	17	5.2	7	C			0.00074	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	58	2.6	2.1	12	6.2	3.0	5	I			0.00059	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	31%	58	0.31	0.49	2.8	0.82	0.41	3	O(I)			0.00014	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	60%	58	3.4	5.7	32	15	4.5	0.057	L(I)			0.079	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	6.9%	58	0.09	0.22	1.2	0.30	0.14	3	O(I)	2.6×10^{-7}	O(C)	0.000047	3.7×10^{-8}
Propene	115-07-1	93%	58	1.5	1.4	8.8	3.8	1.9	3	C			0.00063	N/A
Styrene	100-42-5	62%	58	1.3	2.5	12	7.7	1.9	1	O(I)			0.0019	N/A
1,1,2,2-Tetrachloroethane	79-34-5	19%	58	1.6	3.8	7.4	7.5	2.5			0.000058	O(I)	N/A	1.5×10^{-4}
Tetrachloroethene (PCE)	127-18-4	19%	58	0.12	0.24	1.5	0.30	0.17	0.27	O(A)	0.0000059	O(C)	0.00063	1.0×10^{-6}
Tetrahydrofuran (THF)	109-99-9	48%	58	0.27	0.35	1.7	0.83	0.35	0.035	R			0.01	N/A
Toluene	108-88-3	88%	58	2.2	2.3	11	10	2.7	5	O(I)			0.00054	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	64%	58	0.60	1.1	8.1	2.4	0.84					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	5.2%	58	0.53	0.40	0.71	0.69	0.62	0.2	O(H)			0.0031	N/A
1,1,1-Trichloroethane	71-55-6	24%	58	0.093	0.16	0.98	0.24	0.13	1	O(C)			0.00013	N/A
1,1,2-Trichloroethane	79-00-5	12%	58	0.15	0.25	0.66	0.41	0.20	0.4	O(P-C)	0.000016	O(I)	0.00051	3.2×10^{-6}
Trichloroethene (TCE)	79-01-6	14%	58	0.13	0.26	0.54	0.31	0.19	0.6	O(C)	0.000002	O(C)	0.00031	3.8×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	76%	58	1.0	0.96	6.2	2.8	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	29%	58	0.21	0.35	1.6	1.1	0.29	0.006	L(P)			0.048	N/A
1,2,4-Trimethylbenzene	95-63-6	64%	58	0.54	0.64	4.0	2.0	0.69	0.007	L(R(p))			0.098	N/A
Vinyl Chloride	75-01-4	17%	58	0.067	0.15	0.28	0.22	0.10	0.1	O(I)	0.0000088	O(I)	0.001	8.8×10^{-7}
Vinylidene Chloride	75-35-4	26%	58	0.95	2.2	11	7.1	1.5	0.2	O(I)			0.0073	N/A
o-Xylene	95-47-6	36%	58	0.35	0.39	2.0	1.6	0.43	0.1	O(I)			0.0043	N/A
m+p-Xylenes	106-42-3	93%	58	0.91	1.0	4.9	4.3	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean $\mu g/m^3$	KM St. Dev. $\mu g/m^3$	Max Detect $\mu g/m^3$	97th Percentile $\mu g/m^3$	95% KM(t) UCL $\mu g/m^3$	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) $1/(\mu g/m^3)$	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	50	13	12	77	40	16	31	A			0.00052	N/A
Acrolein	107-02-8	92%	24	2.0	2.1	9.2	6.9	2.7	0.00002	O(I)			140	N/A
Benzene	71-43-2	96%	50	1.2	0.57	3.3	2.4	1.3	0.03	O(I)	0.0000078	O(I)	0.044	$1.0x10^{-5}$
Benzyl Chloride	100-44-7	0%	50	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	4.0%	50	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	50	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	46%	50	0.34	0.50	1.8	1.8	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	20%	50	0.11	0.24	1.1	0.66	0.18	0.002	O(I)	0.00003	O(I)	0.088	$5.3x10^{-6}$
Carbon Disulfide	75-15-0	36%	50	1.7	1.1	5.2	4.7	2.0	0.7	O(I)			0.0029	N/A
Carbon Tetrachloride	56-23-5	12%	50	0.15	0.26	0.94	0.31	0.21	0.19	O(D-A)	0.000015	O(I)	0.0011	$3.2x10^{-6}$
Chlorobenzene	108-90-7	0%	50	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	24%	50	0.12	0.24	0.90	0.79	0.18	10	O(I)			0.000018	N/A
Chloroform	67-66-3	16%	50	0.068	0.10	0.30	0.30	0.093	0.098	O(A)	0.000023	I	0.00095	$2.1x10^{-6}$
Chloromethane	74-87-3	98%	50	0.91	0.33	1.6	1.4	0.99	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	42%	50	0.21	0.48	2.4	1.5	0.33	6	I			0.000056	N/A
Dibromochloromethane	124-48-1	0%	50	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	50	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	8.0%	50	0.11	0.20	0.78	0.31	0.16					N/A	N/A
p-Dichlorobenzene	106-46-7	16%	50	0.11	0.17	0.78	0.49	0.15	0.8	O(I)	0.000011	O(C)	0.00019	$1.7x10^{-6}$
o-Dichlorobenzene	95-50-1	0%	50	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	50	2.4	0.84	3.7	3.7	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	2.0%	50	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	8.0%	50	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	50	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	50	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	30%	50	0.22	0.31	1.3	1.0	0.30	1	O(A)	$4.7x10^{-7}$	O(I)	0.0003	$1.4x10^{-7}$
1,2-Dichloropropane	78-87-5	0%	50	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	50	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	50	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	4.0%	50	0.21	0.70	3.8	2.1	0.39					N/A	N/A
1,4-Dioxane	123-91-1	10%	50	0.13	0.27	0.35	0.35	0.19	3.6	O(D-A)	0.0000077	O(C)	0.000054	$1.5x10^{-6}$
Ethanol	64-17-5	96%	50	38	53	350	120	52	100	L(IDEM)			0.00052	N/A
Ethyl Acetate	141-78-6	80%	50	0.50	0.61	3.0	2.2	0.65	0.37	ACGIH			0.0018	N/A
Ethylbenzene	100-41-4	92%	50	0.39	0.33	1.4	1.2	0.48	1	O(I)	0.0000025	C	0.00048	$1.2x10^{-6}$
p-Ethyltoluene	622-96-8	48%	50	0.29	0.38	1.7	1.2	0.38					N/A	N/A
Heptane	142-82-5	98%	50	0.53	0.39	1.7	1.4	0.61	0.43	ACGIH			0.0014	N/A
Hexachlorobutadiene	87-68-3	6.0%	50	N/A	N/A	0.38	0.39	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	94%	50	0.67	0.49	2.0	1.7	0.81	0.7	O(I)			0.0012	N/A
Isopropanol	67-63-0	94%	50	1.4	1.4	9.4	3.9	1.8	7	C			0.00025	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	96%	50	2.0	1.4	6.5	5.3	2.3	5	I			0.00047	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	8.0%	50	0.17	0.45	0.33	0.28	0.28	3	O(I)			0.000094	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	10%	50	0.11	0.20	0.53	0.41	0.16	0.057	L(I)			0.0028	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	2.0%	50	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	50	2.1	1.3	8.0	4.1	2.4	3	C			0.0008	N/A
Styrene	100-42-5	68%	50	1.9	3.5	18	11	2.8	1	O(I)			0.0028	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	50	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	12%	50	0.081	0.10	0.33	0.33	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	16%	50	0.035	0.047	0.27	0.12	0.044	0.035	R			0.0013	N/A
Toluene	108-88-3	98%	50	2.3	1.8	8.0	6.8	2.8	5	O(I)			0.00056	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	76%	50	0.57	0.28	1.5	1.1	0.64					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	50	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	6.0%	50	N/A	N/A	0.22	0.22	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	50	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	8.0%	50	0.091	0.27	1.7	0.23	0.16	0.6	O(C)	0.000002	O(C)	0.00027	3.2×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	94%	50	1.2	0.35	1.7	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	10%	50	0.35	0.047	0.54	0.49	0.37	0.006	L(P)			0.062	N/A
1,2,4-Trimethylbenzene	95-63-6	64%	50	0.48	0.49	2.2	1.7	0.59	0.007	L(R(p))			0.084	N/A
Vinyl Acetate	108-05-4	100%	18	3.2	3.9	14	12	4.9	0.2	O(I)			0.025	N/A
Vinyl Chloride	75-01-4	2.0%	50	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	50	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	40%	50	0.31	0.43	1.5	1.5	0.43	0.1	O(I)			0.0043	N/A
m+p-Xylenes	106-42-3	94%	50	0.95	1.0	4.1	3.7	1.2	0.1	O(I)			0.012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	92%	52	6.2	5.7	27	21	7.6	31	A			0.00025	N/A
Acrolein	107-02-8	85%	41	2.0	1.2	5.0	5.0	2.3	0.00002	O(I)			110	N/A
Benzene	71-43-2	92%	52	1.0	0.93	5.2	3.5	1.2	0.03	O(I)	0.0000078	O(I)	0.041	9.7×10^{-6}
Benzyl Chloride	100-44-7	0%	52	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	52	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	1.9%	52	N/A	N/A	0.66	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	5.8%	52	0.20	0.035	0.33	0.27	0.21	0.002	O(I)	0.00003	O(I)	0.11	6.4×10^{-6}
Carbon Disulfide	75-15-0	9.6%	52	0.16	0.037	0.31	0.28	0.17	0.7	O(I)			0.00025	N/A
Carbon Tetrachloride	56-23-5	58%	52	0.30	0.13	0.50	0.50	0.33	0.19	O(D-A)	0.000015	O(I)	0.0017	4.9×10^{-6}
Chlorobenzene	108-90-7	0%	52	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	52	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	5.8%	52	N/A	N/A	0.15	0.15	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	90%	52	0.87	0.31	1.6	1.4	0.93	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	60%	52	0.17	0.052	0.38	0.28	0.18	6	I			0.00003	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.9%	52	N/A	N/A	0.18	0.09	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	63%	52	0.72	1.9	11	5.7	1.2	0.8	O(I)	0.000011	O(C)	0.0015	1.3×10^{-5}
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	90%	52	2.2	0.79	4.8	3.7	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	52	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	3.8%	52	0.044	0.031	0.20	0.17	0.052	0.06	R			0.00086	N/A
c-1,2-Dichloroethene	156-59-2	1.9%	52	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	62%	52	0.25	0.11	0.73	0.56	0.28	1	O(A)	4.7×10^{-7}	O(I)	0.00028	1.3×10^{-7}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.9%	52	N/A	N/A	0.50	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.8%	52	0.28	0.027	0.42	0.26	0.29					N/A	N/A
1,4-Dioxane	123-91-1	15%	52	0.23	0.40	2.6	1.0	0.33	3.6	O(D-A)	0.0000077	O(C)	0.000092	2.6×10^{-6}
Ethanol	64-17-5	58%	52	27	28	110	110	34	100	L(IDEM)			0.00034	N/A
Ethyl Acetate	141-78-6	71%	52	0.31	0.43	2.7	0.86	0.40	0.37	ACGIH			0.0011	N/A
Ethylbenzene	100-41-4	88%	52	0.27	0.16	0.74	0.65	0.31	1	O(I)	0.0000025	C	0.00031	7.8×10^{-7}
p-Ethyltoluene	622-96-8	25%	52	0.21	0.054	0.49	0.32	0.23					N/A	N/A
Heptane	142-82-5	81%	52	0.37	0.18	0.78	0.74	0.41	0.43	ACGIH			0.00095	N/A
Hexachlorobutadiene	87-68-3	0%	52	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	88%	52	0.49	0.28	1.4	1.2	0.56	0.7	O(I)			0.0008	N/A
Isopropanol	67-63-0	63%	52	1.1	1.9	12	4.4	1.5	7	C			0.00022	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	85%	52	1.2	0.94	3.7	3.5	1.5	5	I			0.0003	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	56%	52	0.32	0.19	0.90	0.82	0.36	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	73%	52	0.41	0.53	2.5	1.9	0.53	0.057	L(I)			0.0094	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	52	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	90%	52	0.64	0.43	2.3	1.7	0.74	3	C			0.00025	N/A
Styrene	100-42-5	63%	52	1.2	1.7	9.5	5.1	1.5	1	O(I)			0.0015	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	23%	52	0.12	0.13	0.81	0.31	0.14	0.27	O(A)	0.0000059	O(C)	0.00053	8.4×10^{-7}
Tetrahydrofuran (THF)	109-99-9	23%	52	0.094	0.16	0.91	0.41	0.13	0.035	R			0.0038	N/A
Toluene	108-88-3	92%	52	1.6	1.0	4.8	4.5	1.8	5	O(I)			0.00036	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	92%	52	0.50	0.18	0.84	0.73	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	52	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	13%	52	0.18	0.081	0.64	0.29	0.19	0.6	O(C)	0.000002	O(C)	0.00032	3.9×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	92%	52	1.0	0.38	2.0	1.8	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	7.7%	52	0.25	0.018	0.34	0.27	0.25	0.006	L(P)			0.042	N/A
1,2,4-Trimethylbenzene	95-63-6	87%	52	0.38	0.25	1.2	0.89	0.45	0.007	L(R(p))			0.064	N/A
Vinyl Acetate	108-05-4	96%	52	3.5	3.9	17	13	4.6	0.2	O(I)			0.023	N/A
Vinyl Chloride	75-01-4	1.9%	52	N/A	N/A	0.28	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	52	N/A	N/A	0.87	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	88%	52	0.32	0.20	0.87	0.78	0.37	0.1	O(I)			0.0037	N/A
m+p-Xylenes	106-42-3	92%	52	0.82	0.56	2.3	2.2	0.95	0.1	O(I)			0.0095	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	24	1.4	0.70	3.7	2.8	1.6	0.03	O(I)	0.0000078	O(I)	0.054	1.3×10^{-5}
Bromomethane	74-83-9	0%	24	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	24	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	24	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	4.2%	24	N/A	N/A	0.98	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	24	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	71%	24	0.66	0.23	1.2	1.1	0.74	0.09	O(I)			0.0082	N/A
Cyclohexane	100-82-7	50%	24	0.33	0.29	1.4	1.0	0.45	6	I			0.000075	N/A
1,2-Dibromoethane	106-93-4	0%	24	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	4.2%	24	N/A	N/A	0.96	0.54	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	17%	24	0.52	0.14	0.96	0.90	0.56	0.8	O(I)	0.000011	O(C)	0.00071	6.2×10^{-6}
o-Dichlorobenzene	95-50-1	0%	24	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	24	2.1	0.64	3.6	3.4	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	24	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	24	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	24	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	50%	24	0.42	0.16	0.94	0.83	0.49	1	O(A)	4.7×10^{-7}	O(I)	0.00049	2.3×10^{-7}
1,2-Dichloropropane	78-87-5	13%	24	1.0	0.60	3.2	2.1	1.2	0.004	O(I)	0.000019	O(R)	0.30	2.3×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	24	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	24	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	8.3%	24	N/A	N/A	2.9	2.9	N/A					N/A	N/A
Ethylbenzene	100-41-4	100%	24	0.65	0.32	1.4	1.3	0.74	1	O(I)	0.0000025	C	0.00074	1.8×10^{-6}
p-Ethyltoluene	622-96-8	92%	24	2.6	2.9	9.1	8.4	3.6					N/A	N/A
Heptane	142-82-5	100%	24	0.70	0.41	1.8	1.7	0.86	0.43	ACGIH			0.002	N/A
Hexachlorobutadiene	87-68-3	0%	24	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	24	1.1	0.56	2.4	2.3	1.3	0.7	O(I)			0.0018	N/A
Propene	115-07-1	100%	24	2.1	0.69	3.3	3.3	2.4	3	C			0.0008	N/A
Styrene	100-42-5	96%	24	1.4	1.3	5.4	4.2	1.9	1	O(I)			0.0019	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	24	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	0%	24	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	24	9.0	18	93	45	16	5	O(I)			0.0032	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	21%	24	0.47	0.063	0.69	0.64	0.50					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	24	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	24	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	24	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	21%	24	1.0	0.25	1.8	1.6	1.1	0.6	O(C)	0.000002	O(C)	0.0018	2.1×10^{-6}
Trichlorofluoromethane (F-11)	75-69-4	63%	24	0.96	0.39	1.7	1.6	1.1	0.7	L(R(h))			0.0016	N/A
1,3,5-Trimethylbenzene	108-67-8	100%	24	3.5	4.3	13	12	4.9	0.006	L(P)			0.82	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	24	16	17	58	54	22	0.007	L(R(p))			3.2	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	24	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	24	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	96%	24	1.4	0.87	4.0	3.4	1.7	0.1	O(I)			0.017	N/A
m+p-Xylenes	106-42-3	100%	24	1.8	1.0	5.1	4.2	2.2	0.1	O(I)			0.022	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	96%	57	1.3	1.1	5.1	4.1	1.5	0.03	O(I)	0.0000078	O(I)	0.051	1.2×10^{-5}
Bromomethane	74-83-9	30%	57	0.066	0.17	1.2	0.35	0.10	0.005	O(I)			0.021	N/A
Carbon Tetrachloride	56-23-5	1.8%	57	N/A	N/A	1.9	0.69	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	3.5%	57	0.069	0.17	0.41	0.41	0.11	1	O(C)			0.00011	N/A
Chloroethane	75-00-3	18%	57	0.034	0.079	0.63	0.63	0.053	10	O(I)			0.0000053	N/A
Chloroform	67-66-3	0%	57	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	100%	57	1.1	0.45	3.3	2.1	1.2	0.09	O(I)			0.014	N/A
Cyclohexane	100-82-7	46%	57	0.32	0.22	1.0	0.86	0.38	6	I			0.000063	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.3%	57	0.22	0.20	0.48	0.30	0.26					N/A	N/A
p-Dichlorobenzene	106-46-7	12%	57	0.25	1.4	9.4	0.60	0.57	0.8	O(I)	0.000011	O(C)	0.00071	6.3×10^{-6}
o-Dichlorobenzene	95-50-1	7.0%	57	0.13	0.44	0.48	0.36	0.23	0.6	R			0.00038	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	57	2.6	1.1	7.4	4.3	2.8	1.5	ACGIH			0.0019	N/A
1,1-Dichloroethane	75-34-3	3.5%	57	0.10	0.45	0.41	0.41	0.21	0.5	O(H)	0.0000016	O(C)	0.00041	3.3×10^{-7}
1,2-Dichloroethane	107-06-2	14%	57	0.097	0.11	0.45	0.31	0.13	2.4	O(A)	0.000026	O(I)	0.000052	3.3×10^{-6}
c-1,2-Dichloroethene	156-59-2	7.0%	57	0.12	0.26	0.51	0.51	0.18	0.03	R			0.0059	N/A
Dichloromethane	75-09-2	47%	57	0.59	0.45	2.5	1.7	0.69	1	O(A)	4.7×10^{-7}	O(I)	0.00069	3.3×10^{-7}
1,2-Dichloropropane	78-87-5	25%	57	0.36	0.65	3.1	1.8	0.51	0.004	O(I)	0.000019	O(R)	0.13	9.7×10^{-6}
c-1,3-Dichloropropene	10061-01-3	1.8%	57	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	18%	57	0.22	0.54	0.77	0.77	0.35	0.02	L(IDEM)	0.000004		0.018	1.4×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	57	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	57	0.87	1.1	7.4	3.1	1.1	1	O(I)	0.0000025	C	0.0011	2.7×10^{-6}
p-Ethyltoluene	622-96-8	82%	57	1.3	4.2	32	3.9	2.3					N/A	N/A
Heptane	142-82-5	100%	57	0.78	0.78	4.8	2.4	0.98	0.43	ACGIH			0.0023	N/A
Hexachlorobutadiene	87-68-3	1.8%	57	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	57	1.3	1.3	7.0	4.6	1.6	0.7	O(I)			0.0023	N/A
Propene	115-07-1	100%	57	1.6	0.91	4.3	4.1	1.9	3	C			0.00063	N/A
Styrene	100-42-5	75%	57	1.4	3.2	20	9.4	2.2	1	O(I)			0.0022	N/A
1,1,2,2-Tetrachloroethane	79-34-5	21%	57	0.089	0.11	0.41	0.41	0.12			0.000058	O(I)	N/A	6.8×10^{-6}
Tetrachloroethene (PCE)	127-18-4	8.8%	57	0.14	0.33	1.6	0.75	0.22	0.27	O(A)	0.0000059	O(C)	0.00083	1.3×10^{-6}
Toluene	108-88-3	100%	57	6.0	6.0	26	22	7.2	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	58%	57	0.57	0.18	1.5	1.0	0.62					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	57	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	57	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	18%	57	0.093	0.13	0.44	0.44	0.12	0.4	O(P-C)	0.000016	O(I)	0.0003	1.9×10^{-6}
Trichloroethene (TCE)	79-01-6	3.5%	57	0.086	0.34	1.9	0.81	0.16	0.6	O(C)	0.000002	O(C)	0.00027	3.2×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	93%	57	1.3	0.49	3.6	2.1	1.5	0.7	L(R(h))			0.0021	N/A
1,3,5-Trimethylbenzene	108-67-8	72%	57	1.8	6.4	50	5.4	3.3	0.006	L(P)			0.55	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	57	9.3	23	180	24	15	0.007	L(R(p))			2.1	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	1.8%	57	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.8%	57	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	82%	57	2.1	4.8	32	11	3.3	0.1	O(I)			0.033	N/A
m+p-Xylenes	106-42-3	98%	57	2.3	2.1	12	7.8	2.7	0.1	O(I)			0.027	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	43	1.8	1.8	8.5	7.0	2.3	0.03	O(I)	0.0000078	O(I)	0.075	1.8×10^{-5}
Bromomethane	74-83-9	16%	43	0.043	0.047	0.39	0.39	0.058	0.005	O(I)			0.012	N/A
Carbon Tetrachloride	56-23-5	0%	43	N/A	N/A	0.82	0.82	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	14%	43	0.083	0.17	0.64	0.46	0.13	1	O(C)			0.00013	N/A
Chloroethane	75-00-3	16%	43	0.037	0.045	0.24	0.24	0.05	10	O(I)			0.000005	N/A
Chloroform	67-66-3	0%	43	N/A	N/A	0.20	0.20	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	43	0.99	0.47	2.0	2.0	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	56%	43	0.38	0.32	1.6	1.2	0.48	6	I			0.00008	N/A
1,2-Dibromoethane	106-93-4	0%	43	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	7.0%	43	0.17	0.22	0.96	0.48	0.23					N/A	N/A
p-Dichlorobenzene	106-46-7	12%	43	0.44	0.23	0.84	0.54	0.50	0.8	O(I)	0.000011	O(C)	0.00062	5.5×10^{-6}
o-Dichlorobenzene	95-50-1	4.7%	43	0.15	0.19	0.48	0.48	0.20	0.6	R			0.00034	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	43	2.5	0.74	4.3	3.6	2.7	1.5	ACGIH			0.0018	N/A
1,1-Dichloroethane	75-34-3	4.7%	43	N/A	N/A	1.3	1.3	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	2.3%	43	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	43	N/A	N/A	0.40	0.40	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	19%	43	0.13	0.25	0.97	0.59	0.19	1	O(A)	4.7×10^{-7}	O(I)	0.00019	9.1×10^{-8}
1,2-Dichloropropane	78-87-5	0%	43	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	43	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	2.3%	43	N/A	N/A	0.41	0.41	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	43	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	43	0.78	0.82	3.7	3.4	1.0	1	O(I)	0.0000025	C	0.001	2.5×10^{-6}
p-Ethyltoluene	622-96-8	86%	43	0.93	1.1	6.0	3.0	1.2					N/A	N/A
Heptane	142-82-5	100%	43	0.66	0.61	3.0	2.5	0.82	0.43	ACGIH			0.0019	N/A
Hexachlorobutadiene	87-68-3	0%	43	N/A	N/A	1.1	1.1	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	43	1.3	2.0	13	4.6	1.8	0.7	O(I)			0.0026	N/A
Propene	115-07-1	100%	43	2.1	1.5	6.6	6.2	2.4	3	C			0.0008	N/A
Styrene	100-42-5	49%	43	0.42	0.29	1.6	1.3	0.51	1	O(I)			0.00051	N/A
1,1,2,2-Tetrachloroethane	79-34-5	16%	43	0.18	0.40	2.0	1.0	0.29			0.000058	O(I)	N/A	1.7×10^{-5}
Tetrachloroethene (PCE)	127-18-4	7.0%	43	0.39	1.6	8.3	0.41	0.81	0.27	O(A)	0.0000059	O(C)	0.003	4.8×10^{-6}
Toluene	108-88-3	100%	43	4.5	4.5	20	19	5.7	5	O(I)			0.0011	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	35%	43	0.55	0.04	0.69	0.61	0.56					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	43	N/A	N/A	0.54	0.54	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	43	N/A	N/A	0.98	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	2.3%	43	N/A	N/A	0.55	0.55	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	4.7%	43	0.13	0.52	0.32	0.32	0.27	0.6	O(C)	0.000002	O(C)	0.00046	5.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	93%	43	1.1	0.38	1.8	1.8	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	65%	43	0.84	1.2	6.6	3.7	1.1	0.006	L(P)			0.19	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	43	2.6	2.8	13	11	3.3	0.007	L(R(p))			0.48	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	43	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	2.3%	43	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	74%	43	1.0	0.87	4.3	3.4	1.2	0.1	O(I)			0.012	N/A
m+p-Xylenes	106-42-3	100%	43	2.3	2.3	9.9	9.5	2.9	0.1	O(I)			0.029	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	51	9.8	8.3	31	26	12	31	A			0.00038	N/A
Benzene	71-43-2	86%	51	0.83	0.61	3.7	2.2	0.99	0.03	O(I)	0.0000078	O(I)	0.033	7.7×10^{-6}
Benzyl Chloride	100-44-7	7.8%	51	N/A	N/A	0.45	0.46	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	51	N/A	N/A		N/A	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	51	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	12%	51	0.058	0.11	0.58	0.43	0.085	0.005	O(I)			0.017	N/A
1,3-Butadiene	106-99-0	20%	51	0.11	0.20	0.60	0.60	0.16	0.002	O(I)	0.00003	O(I)	0.082	4.9×10^{-6}
Carbon Disulfide	75-15-0	24%	51	0.075	0.12	0.50	0.47	0.11	0.7	O(I)			0.00015	N/A
Carbon Tetrachloride	56-23-5	3.9%	51	N/A	N/A	0.063	0.063	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	51	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	2.0%	51	N/A	N/A	0.69	0.69	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	18%	51	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	86%	51	1.7	2.7	14	7.6	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	33%	51	0.12	0.15	0.65	0.41	0.16	6	I			0.000026	N/A
Dibromochloromethane	124-48-1	0%	51	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	51	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	51	N/A	N/A	0.82	0.84	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.9%	51	0.078	0.11	0.54	0.41	0.10	0.8	O(I)	0.000011	O(C)	0.00013	1.1×10^{-6}
o-Dichlorobenzene	95-50-1	0%	51	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	51	4.2	10	76	10	6.9	1.5	ACGIH			0.0046	N/A
1,1-Dichloroethane	75-34-3	16%	51	N/A	N/A	0.081	0.073	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.9%	51	N/A	N/A	0.081	0.081	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	2.0%	51	N/A	N/A	0.04	0.04	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	51	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	18%	51	0.066	0.15	0.73	0.38	0.10	1	O(A)	4.7×10^{-7}	O(I)	0.0001	4.7×10^{-8}
1,2-Dichloropropane	78-87-5	0%	51	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	51	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	51	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	2.0%	51	N/A	N/A	2.4	2.4	N/A					N/A	N/A
1,4-Dioxane	123-91-1	2.0%	51	N/A	N/A	3.1	3.1	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	96%	51	35	37	150	130	44	100	L(IDEM)			0.00044	N/A
Ethyl Acetate	141-78-6	69%	51	0.26	0.90	6.3	0.65	0.47	0.37	ACGIH			0.0013	N/A
Ethylbenzene	100-41-4	61%	51	0.19	0.18	0.78	0.65	0.24	1	O(I)	0.0000025	C	0.00024	6.0×10^{-7}
p-Ethyltoluene	622-96-8	22%	51	0.089	0.11	0.44	0.27	0.11					N/A	N/A
Heptane	142-82-5	61%	51	0.17	0.18	0.94	0.53	0.22	0.43	ACGIH			0.00051	N/A
Hexachlorobutadiene	87-68-3	2.0%	51	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	78%	51	0.46	0.49	2.7	1.5	0.56	0.7	O(I)			0.0008	N/A
Isopropanol	67-63-0	69%	51	1.2	1.2	4.6	4.4	1.5	7	C			0.00021	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	80%	51	2.2	2.5	14	6.8	2.8	5	I			0.00056	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean $\mu g/m^3$	KM St. Dev. $\mu g/m^3$	Max Detect $\mu g/m^3$	97th Percentile $\mu g/m^3$	95% KM(t) UCL $\mu g/m^3$	Reference Concentration (RfC) mg/m^3	Source	Inhalation Unit Risk (IUR) $1/(\mu g/m^3)$	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	35%	51	0.39	1.8	13	2.0	0.82	3	O(I)			0.00027	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	37%	51	0.21	0.49	2.1	2.1	0.32	0.057	L(I)			0.0057	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	18%	51	0.051	0.072	0.25	0.25	0.069	3	O(I)	2.6×10^{-7}	O(C)	0.000023	1.8×10^{-8}
Propene	115-07-1	98%	51	3.3	5.2	20	19	4.6	3	C			0.0015	N/A
Styrene	100-42-5	3.9%	51	N/A	N/A	0.29	0.29	N/A	1	O(I)			N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	51	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	14%	51	0.18	0.56	3.3	1.0	0.31	0.27	O(A)	0.0000059	O(C)	0.0012	1.8×10^{-6}
Tetrahydrofuran (THF)	109-99-9	59%	51	0.12	0.11	0.44	0.35	0.14	0.035	R			0.004	N/A
Toluene	108-88-3	94%	51	1.3	1.1	4.9	3.8	1.6	5	O(I)			0.00032	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	41%	51	0.60	0.14	1.1	0.92	0.63					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	51	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	14%	51	0.076	0.19	1.0	0.98	0.12	1	O(C)			0.00012	N/A
1,1,2-Trichloroethane	79-00-5	0%	51	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	20%	51	0.064	0.07	1.2	1.2	0.081	0.6	O(C)	0.000002	O(C)	0.00013	1.6×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	51	1.3	1.4	11	2.6	1.7	0.7	L(R(h))			0.0024	N/A
1,3,5-Trimethylbenzene	108-67-8	24%	51	0.13	0.17	0.44	0.33	0.17	0.006	L(P)			0.028	N/A
1,2,4-Trimethylbenzene	95-63-6	18%	51	0.11	0.21	0.84	0.39	0.16	0.007	L(R(p))			0.023	N/A
Vinyl Chloride	75-01-4	5.9%	51	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	2.0%	51	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	22%	51	0.14	0.22	0.91	0.69	0.19	0.1	O(I)			0.0019	N/A
m+p-Xylenes	106-42-3	84%	51	0.56	0.56	2.8	2.0	0.69	0.1	O(I)			0.0069	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	45	12	6.4	29	26	14	31	A			0.00045	N/A
Benzene	71-43-2	100%	45	0.83	0.51	2.6	2.2	0.96	0.03	O(I)	0.0000078	O(I)	0.032	7.5x10⁻⁶
Benzyl Chloride	100-44-7	0%	45	N/A	N/A	0.70	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	45	N/A	N/A		N/A	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	45	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	29%	45	0.12	0.17	0.62	0.47	0.16	0.005	O(I)			0.033	N/A
1,3-Butadiene	106-99-0	44%	45	0.15	0.27	1.0	0.80	0.22	0.002	O(I)	0.00003	O(I)	0.11	6.6x10⁻⁶
Carbon Disulfide	75-15-0	73%	45	0.17	0.20	0.90	0.65	0.22	0.7	O(I)			0.00032	N/A
Carbon Tetrachloride	56-23-5	2.2%	45	N/A	N/A	0.19	0.19	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	45	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	45	N/A	N/A	0.80	0.79	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	31%	45	N/A	N/A	0.20	0.16	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	45	1.4	1.9	9.8	7.8	1.9	0.09	O(I)			0.021	N/A
Cyclohexane	100-82-7	51%	45	0.072	0.069	0.24	0.23	0.089	6	I			0.000015	N/A
Dibromochloromethane	124-48-1	2.2%	45	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	45	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	4.4%	45	0.18	0.40	0.35	0.35	0.28					N/A	N/A
p-Dichlorobenzene	106-46-7	4.4%	45	0.18	0.40	0.41	0.41	0.28	0.8	O(I)	0.000011	O(C)	0.00035	3.1x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	45	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	91%	45	2.2	0.99	3.6	3.4	2.5	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	45	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	4.4%	45	N/A	N/A	0.081	0.081	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	45	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	45	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	53%	45	0.20	0.20	0.94	0.62	0.25	1	O(A)	4.7x10⁻⁷	O(I)	0.00025	1.2x10⁻⁷
1,2-Dichloropropane	78-87-5	6.7%	45	N/A	N/A	0.092	0.088	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	45	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	6.7%	45	N/A	N/A	0.18	0.18	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	38%	45	0.077	0.051	1.8	1.7	0.091					N/A	N/A
1,4-Dioxane	123-91-1	11%	45	N/A	N/A	0.65	0.61	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	45	71	130	690	440	100	100	L(IDEM)			0.001	N/A
Ethyl Acetate	141-78-6	89%	45	0.16	0.14	0.72	0.47	0.20	0.37	ACGIH			0.00054	N/A
Ethylbenzene	100-41-4	71%	45	0.22	0.23	0.91	0.87	0.27	1	O(I)	0.0000025	C	0.00027	6.8x10⁻⁷
p-Ethyltoluene	622-96-8	27%	45	0.13	0.21	1.2	0.36	0.18					N/A	N/A
Heptane	142-82-5	64%	45	0.15	0.12	0.49	0.45	0.18	0.43	ACGIH			0.00042	N/A
Hexachlorobutadiene	87-68-3	0%	45	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	84%	45	0.33	0.23	1.2	0.95	0.39	0.7	O(I)			0.00055	N/A
Isopropanol	67-63-0	91%	45	0.96	0.76	3.3	2.4	1.2	7	C			0.00017	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	100%	45	2.2	1.2	5.5	4.7	2.5	5	I			0.0005	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	40%	45	0.22	0.32	170	170	0.30	3	O(I)			0.0001	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	40%	45	0.25	0.61	2.2	2.3	0.41	0.057	L(I)			0.0072	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	2.2%	45	N/A	N/A	0.28	0.28	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	93%	45	1.4	2.8	15	8.1	2.1	3	C			0.00069	N/A
Styrene	100-42-5	8.9%	45	0.064	0.10	0.30	0.29	0.089	1	O(I)			0.000089	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	45	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	31%	45	0.075	0.06	0.92	0.95	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	80%	45	0.11	0.097	0.44	0.29	0.13	0.035	R			0.0038	N/A
Toluene	108-88-3	100%	45	1.8	1.8	8.7	7.2	2.3	5	O(I)			0.00046	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	29%	45	0.47	0.15	0.77	0.61	0.51					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	45	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	49%	45	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	2.2%	45	N/A	N/A	0.055	0.055	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	18%	45	0.13	0.26	0.89	0.91	0.20	0.6	O(C)	0.000002	O(C)	0.00034	4.1×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	45	1.2	0.29	2.2	1.8	1.3	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	20%	45	0.12	0.33	1.9	0.38	0.21	0.006	L(P)			0.034	N/A
1,2,4-Trimethylbenzene	95-63-6	16%	45	0.13	0.31	1.4	0.69	0.22	0.007	L(R(p))			0.031	N/A
Vinyl Chloride	75-01-4	0%	45	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	45	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	53%	45	0.23	0.26	1.0	0.91	0.30	0.1	O(I)			0.003	N/A
m+p-Xylenes	106-42-3	96%	45	0.69	0.74	3.6	2.6	0.91	0.1	O(I)			0.0091	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	96%	57	8.3	7.4	37	29	10	31	A			0.00032	N/A
Benzene	71-43-2	93%	57	0.70	0.54	2.8	2.3	0.83	0.03	O(I)	0.0000078	O(I)	0.028	6.5x10⁻⁶
Benzyl Chloride	100-44-7	14%	57	0.62	0.57	3.9	1.6	0.78	0.00066	ACGIH	0.000049	O(C)	1.2	3.8x10⁻⁵
Bromodichloromethane	75-27-4	19%	57	0.074	0.062	0.71	0.74	0.087			0.000037	C	N/A	3.2x10⁻⁶
Bromoform	75-25-2	0%	57	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	44%	57	0.32	0.39	1.4	0.85	0.43	0.005	O(I)			0.085	N/A
1,3-Butadiene	106-99-0	21%	57	0.62	4.2	31	0.62	1.6	0.002	O(I)	0.00003	O(I)	0.81	4.8x10⁻⁵
Carbon Disulfide	75-15-0	26%	57	0.096	0.13	0.59	0.28	0.13	0.7	O(I)			0.00018	N/A
Carbon Tetrachloride	56-23-5	1.8%	57	N/A	N/A	1.2	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	3.5%	57	N/A	N/A	0.61	0.60	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	57	N/A	N/A	0.45	0.45	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	7.0%	57	0.059	0.11	0.50	0.49	0.088	0.098	O(A)	0.000023	I	0.0009	2.0x10⁻⁶
Chloromethane	74-87-3	68%	57	0.33	0.29	1.2	0.95	0.39	0.09	O(I)			0.0043	N/A
Cyclohexane	100-82-7	30%	57	0.12	0.24	1.2	0.38	0.18	6	I			0.000029	N/A
Dibromochloromethane	124-48-1	0%	57	N/A	N/A	0.97	0.94	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	57	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	8.8%	57	0.41	1.1	1.9	0.72	0.66					N/A	N/A
p-Dichlorobenzene	106-46-7	8.8%	57	0.46	1.2	1.2	1.0	0.72	0.8	O(I)	0.000011	O(C)	0.0009	7.9x10⁻⁶
o-Dichlorobenzene	95-50-1	1.8%	57	N/A	N/A	0.81	0.84	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	67%	57	1.1	0.79	2.5	2.2	1.3	1.5	ACGIH			0.00086	N/A
1,1-Dichloroethane	75-34-3	0%	57	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	25%	57	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	8.8%	57	0.071	0.12	0.40	0.40	0.099	0.06	R			0.0017	N/A
c-1,2-Dichloroethene	156-59-2	18%	57	0.044	0.04	0.41	0.40	0.051	0.03	R			0.0017	N/A
Dichloromethane	75-09-2	26%	57	0.11	0.12	0.52	0.32	0.14	1	O(A)	4.7x10⁻⁷	O(I)	0.00014	6.4x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	57	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	57	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	8.8%	57	N/A	N/A	0.47	0.45	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	33%	57	0.38	0.60	2.2	1.8	0.52					N/A	N/A
1,4-Dioxane	123-91-1	5.3%	57	0.047	0.10	0.60	0.61	0.072	3.6	O(D-A)	0.0000077	O(C)	0.00002	5.5x10⁻⁷
Ethanol	64-17-5	77%	57	11	13	49	39	14	100	L(IDEM)			0.00014	N/A
Ethyl Acetate	141-78-6	60%	57	0.40	1.5	10	1.8	0.76	0.37	ACGIH			0.002	N/A
Ethylbenzene	100-41-4	42%	57	0.29	0.31	1.3	0.95	0.36	1	O(I)	0.0000025	C	0.00036	9.0x10⁻⁷
p-Ethyltoluene	622-96-8	44%	57	0.19	0.27	1.1	0.79	0.26					N/A	N/A
Heptane	142-82-5	65%	57	0.24	0.19	0.86	0.66	0.29	0.43	ACGIH			0.00067	N/A
Hexachlorobutadiene	87-68-3	8.8%	57	0.24	0.48	2.4	1.1	0.34	0.09	O(P-C)	0.000022	O(I)	0.0038	7.5x10⁻⁶
Hexane	110-54-3	88%	57	0.42	0.32	1.8	1.3	0.49	0.7	O(I)			0.0007	N/A
Isopropanol	67-63-0	60%	57	0.59	1.3	9.0	2.5	0.89	7	C			0.00013	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	57	2.2	2.5	16	7.4	2.7	5	I			0.00055	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	18%	57	0.20	0.57	2.7	0.94	0.32	3	O(I)			0.00011	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	32%	57	0.94	2.5	11	9.0	1.5	0.057	L(I)			0.027	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	37%	57	0.051	0.11	0.41	0.40	0.076	3	O(I)	2.6×10^{-7}	O(C)	0.000025	2.0×10^{-8}
Propene	115-07-1	84%	57	0.83	0.74	2.5	2.2	1.0	3	C			0.00033	N/A
Styrene	100-42-5	8.8%	57	0.16	0.40	0.66	0.68	0.25	1	O(I)			0.00025	N/A
1,1,2,2-Tetrachloroethane	79-34-5	1.8%	57	N/A	N/A	0.70	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	18%	57	N/A	N/A	0.79	0.81	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Tetrahydrofuran (THF)	109-99-9	63%	57	0.094	0.14	0.83	0.38	0.13	0.035	R			0.0036	N/A
Toluene	108-88-3	96%	57	1.3	1.2	6.7	4.5	1.6	5	O(I)			0.00032	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	25%	57	0.55	0.21	0.92	0.84	0.60					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	57	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	25%	57	0.071	0.071	0.54	0.54	0.087	1	O(C)			0.000087	N/A
1,1,2-Trichloroethane	79-00-5	0%	57	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	28%	57	0.075	0.12	0.55	0.54	0.10	0.6	O(C)	0.000002	O(C)	0.00017	2.0×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	81%	57	0.90	0.41	2.0	1.5	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	49%	57	0.24	0.30	0.74	0.64	0.31	0.006	L(P)			0.051	N/A
1,2,4-Trimethylbenzene	95-63-6	39%	57	0.23	0.37	2.0	1.0	0.31	0.007	L(R(p))			0.045	N/A
Vinyl Chloride	75-01-4	11%	57	0.13	0.82	5.6	0.084	0.33	0.1	O(I)	0.0000088	O(I)	0.0033	2.9×10^{-6}
Vinylidene Chloride	75-35-4	5.3%	57	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	37%	57	0.28	0.52	2.6	1.6	0.40	0.1	O(I)			0.004	N/A
m+p-Xylenes	106-42-3	74%	57	0.78	1.2	5.4	4.1	1.0	0.1	O(I)			0.01	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	94%	52	8.6	10	58	29	11	31	A			0.00036	N/A
Benzene	71-43-2	75%	52	0.83	0.70	3.8	2.5	1.0	0.03	O(I)	0.0000078	O(I)	0.034	8.0×10^{-6}
Benzyl Chloride	100-44-7	46%	52	1.5	1.3	3.7	3.6	1.8	0.00066	ACGIH	0.000049	O(C)	2.7	8.6×10^{-5}
Bromodichloromethane	75-27-4	9.6%	52	0.11	0.25	0.40	0.36	0.17			0.000037	C	N/A	6.2×10^{-6}
Bromoform	75-25-2	0%	52	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	37%	52	0.38	0.47	2.1	1.5	0.50	0.005	O(I)			0.10	N/A
1,3-Butadiene	106-99-0	29%	52	0.16	0.60	4.1	0.55	0.31	0.002	O(I)	0.00003	O(I)	0.15	9.3×10^{-6}
Carbon Disulfide	75-15-0	13%	52	0.062	0.14	0.53	0.16	0.093	0.7	O(I)			0.00013	N/A
Carbon Tetrachloride	56-23-5	13%	52	0.17	0.20	1.1	0.61	0.22	0.19	O(D-A)	0.000015	O(I)	0.0012	3.3×10^{-6}
Chlorobenzene	108-90-7	0%	52	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	15%	52	0.055	0.16	0.45	0.45	0.095	10	O(I)			0.0000095	N/A
Chloroform	67-66-3	12%	52	0.059	0.073	0.12	0.12	0.073	0.098	O(A)	0.000023	I	0.00075	1.7×10^{-6}
Chloromethane	74-87-3	77%	52	0.62	0.58	2.3	1.9	0.76	0.09	O(I)			0.0085	N/A
Cyclohexane	100-82-7	69%	52	0.69	1.1	3.4	3.2	0.96	6	I			0.00016	N/A
Dibromochloromethane	124-48-1	1.9%	52	N/A	N/A	0.42	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	1.9%	52	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	13%	52	0.11	0.24	0.72	0.29	0.17					N/A	N/A
p-Dichlorobenzene	106-46-7	19%	52	0.09	0.15	0.36	0.35	0.13	0.8	O(I)	0.000011	O(C)	0.00016	1.4×10^{-6}
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	88%	52	1.7	1.1	4.2	3.9	2.0	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	1.9%	52	N/A	N/A	1.4	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	9.6%	52	N/A	N/A	0.27	0.27	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	12%	52	0.083	0.19	1.0	0.13	0.13	0.06	R			0.0021	N/A
c-1,2-Dichloroethene	156-59-2	7.7%	52	N/A	N/A	0.19	0.19	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	48%	52	0.27	0.28	1.0	0.90	0.34	1	O(A)	4.7×10^{-7}	O(I)	0.00034	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.25	0.25	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	13%	52	0.13	0.34	2.1	0.34	0.21					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	19%	52	0.16	0.37	1.9	1.1	0.25	0.02	L(IDEM)	0.000004		0.013	1.0×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	35%	52	0.55	0.84	4.5	1.8	0.77					N/A	N/A
1,4-Dioxane	123-91-1	33%	52	0.14	0.40	0.85	0.86	0.23	3.6	O(D-A)	0.0000077	O(C)	0.000064	1.8×10^{-6}
Ethanol	64-17-5	69%	52	11	18	86	54	15	100	L(IDEM)			0.00015	N/A
Ethyl Acetate	141-78-6	83%	52	0.58	1.2	6.2	4.0	0.86	0.37	ACGIH			0.0023	N/A
Ethylbenzene	100-41-4	71%	52	0.33	0.38	2.5	0.91	0.42	1	O(I)	0.0000025	C	0.00042	1.1×10^{-6}
p-Ethyltoluene	622-96-8	63%	52	0.30	0.33	1.5	1.1	0.38					N/A	N/A
Heptane	142-82-5	73%	52	0.26	0.32	1.4	0.94	0.34	0.43	ACGIH			0.00078	N/A
Hexachlorobutadiene	87-68-3	5.8%	52	0.29	1.5	1.1	1.1	0.64	0.09	O(P-C)	0.000022	O(I)	0.0071	1.4×10^{-5}
Hexane	110-54-3	77%	52	0.60	0.63	3.6	2.0	0.74	0.7	O(I)			0.0011	N/A
Isopropanol	67-63-0	69%	52	1.4	3.7	26	4.4	2.3	7	C			0.00033	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	90%	52	3.8	4.1	22	13	4.7	5	I			0.00094	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	33%	52	0.41	0.61	3.4	1.9	0.57	3	O(I)			0.00019	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	44%	52	0.70	1.6	8.7	4.9	1.1	0.057	L(I)			0.019	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	15%	52	0.10	0.18	0.51	0.30	0.15	3	O(I)	2.6×10^{-7}	O(C)	0.000051	3.9×10^{-8}
Propene	115-07-1	94%	52	1.6	1.2	5.6	4.8	1.9	3	C			0.00063	N/A
Styrene	100-42-5	15%	52	0.072	0.12	0.60	0.32	0.098	1	O(I)			0.000098	N/A
1,1,2,2-Tetrachloroethane	79-34-5	12%	52	1.6	7.5	7.4	7.5	3.4			0.000058	O(I)	N/A	1.9×10^{-4}
Tetrachloroethene (PCE)	127-18-4	21%	52	0.14	0.30	1.8	0.51	0.22	0.27	O(A)	0.0000059	O(C)	0.0008	1.3×10^{-6}
Tetrahydrofuran (THF)	109-99-9	50%	52	0.27	0.32	1.2	0.97	0.35	0.035	R			0.01	N/A
Toluene	108-88-3	90%	52	1.7	2.1	11	6.8	2.2	5	O(I)			0.00044	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	42%	52	0.30	0.30	1.0	0.61	0.37					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.9%	52	N/A	N/A	0.71	0.69	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	5.8%	52	N/A	N/A	0.24	0.24	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	13%	52	N/A	N/A	0.41	0.41	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	31%	52	0.11	0.35	2.3	0.31	0.19	0.6	O(C)	0.000002	O(C)	0.00032	3.9×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	73%	52	0.90	0.73	4.8	1.5	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	23%	52	0.15	0.22	0.98	0.64	0.20	0.006	L(P)			0.034	N/A
1,2,4-Trimethylbenzene	95-63-6	58%	52	0.47	0.59	2.8	2.1	0.64	0.007	L(R(p))			0.091	N/A
Vinyl Chloride	75-01-4	13%	52	0.028	0.033	0.22	0.22	0.038	0.1	O(I)	0.0000088	O(I)	0.00038	3.4×10^{-7}
Vinylidene Chloride	75-35-4	5.8%	52	0.48	3.2	19	2.2	1.2	0.2	O(I)			0.0061	N/A
o-Xylene	95-47-6	25%	52	0.27	0.33	1.4	1.2	0.36	0.1	O(I)			0.0036	N/A
m+p-Xylenes	106-42-3	90%	52	0.82	0.91	4.7	3.0	1.0	0.1	O(I)			0.01	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	45	14	12	64	43	17	31	A			0.00055	N/A
Acrolein	107-02-8	96%	24	1.6	2.2	9.6	7.3	2.3	0.00002	O(I)			110	N/A
Benzene	71-43-2	98%	45	1.5	3.2	22	2.6	2.4	0.03	O(I)	0.0000078	O(I)	0.079	1.8×10^{-5}
Benzyl Chloride	100-44-7	4.4%	45	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	2.2%	45	N/A	N/A	0.60	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	2.2%	45	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	44%	45	2.8	17	110	2.0	7.4	0.005	O(I)			1.5	N/A
1,3-Butadiene	106-99-0	24%	45	0.13	0.35	2.0	0.82	0.22	0.002	O(I)	0.00003	O(I)	0.11	6.6×10^{-6}
Carbon Disulfide	75-15-0	6.7%	45	0.16	0.78	4.4	0.21	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	22%	45	0.26	1.2	7.3	0.44	0.58	0.19	O(D-A)	0.000015	O(I)	0.003	8.7×10^{-6}
Chlorobenzene	108-90-7	0%	45	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	24%	45	0.05	0.098	0.58	0.11	0.074	10	O(I)			0.0000074	N/A
Chloroform	67-66-3	18%	45	0.078	0.29	1.5	0.30	0.16	0.098	O(A)	0.000023	I	0.0016	3.6×10^{-6}
Chloromethane	74-87-3	96%	45	1.4	3.5	24	1.7	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	36%	45	0.30	0.79	4.2	2.3	0.52	6	I			0.000086	N/A
Dibromochloromethane	124-48-1	2.2%	45	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	2.2%	45	N/A	N/A	0.46	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	8.9%	45	0.14	0.32	0.36	0.26	0.23					N/A	N/A
p-Dichlorobenzene	106-46-7	6.7%	45	0.072	0.084	0.48	0.26	0.09	0.8	O(I)	0.000011	O(C)	0.00011	9.9×10^{-7}
o-Dichlorobenzene	95-50-1	4.4%	45	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	45	3.6	7.9	55	3.9	5.4	1.5	ACGIH			0.0036	N/A
1,1-Dichloroethane	75-34-3	0%	45	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	22%	45	0.053	0.081	0.45	0.15	0.073	2.4	O(A)	0.000026	O(I)	0.00003	1.9×10^{-6}
t-1,2-Dichloroethene	156-60-5	2.2%	45	N/A	N/A	24	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	4.4%	45	0.044	0.025	0.16	0.14	0.048	0.03	R			0.0016	N/A
Dichloromethane	75-09-2	24%	45	0.35	0.76	5.0	0.94	0.56	1	O(A)	4.7×10^{-7}	O(I)	0.00056	2.6×10^{-7}
1,2-Dichloropropane	78-87-5	4.4%	45	0.11	0.12	0.65	0.14	0.13	0.004	O(I)	0.000019	O(R)	0.033	2.5×10^{-6}
c-1,3-Dichloropropene	10061-01-3	2.2%	45	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	45	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	11%	45	0.27	1.0	5.9	2.2	0.54					N/A	N/A
1,4-Dioxane	123-91-1	18%	45	0.09	0.21	0.35	0.35	0.14	3.6	O(D-A)	0.0000077	O(C)	0.00004	1.1×10^{-6}
Ethanol	64-17-5	96%	45	27	33	200	77	36	100	L(IDEM)			0.00036	N/A
Ethyl Acetate	141-78-6	71%	45	0.43	0.58	2.6	2.2	0.58	0.37	ACGIH			0.0016	N/A
Ethylbenzene	100-41-4	82%	45	0.37	0.61	4.2	1.0	0.52	1	O(I)	0.0000025	C	0.00052	1.3×10^{-6}
p-Ethyltoluene	622-96-8	38%	45	0.33	0.26	1.6	0.98	0.40					N/A	N/A
Heptane	142-82-5	91%	45	0.57	1.4	9.1	1.2	0.90	0.43	ACGIH			0.0021	N/A
Hexachlorobutadiene	87-68-3	6.7%	45	0.12	0.11	0.64	0.39	0.15	0.09	O(P-C)	0.000022	O(I)	0.0017	3.3×10^{-6}
Hexane	110-54-3	96%	45	1.2	2.6	13	9.2	1.8	0.7	O(I)			0.0026	N/A
Isopropanol	67-63-0	91%	45	1.6	1.9	7.2	6.9	2.1	7	C			0.00031	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	91%	45	3.2	3.5	23	9.1	4.1	5	I			0.00083	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	24%	45	0.10	0.17	0.57	0.45	0.15	3	O(I)			0.000049	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	20%	45	0.45	1.8	11	2.9	0.94	0.057	L(I)			0.017	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	4.4%	45	0.054	0.12	0.13	0.13	0.087	3	O(I)	2.6×10^{-7}	O(C)	0.000029	2.3×10^{-8}
Propene	115-07-1	93%	45	2.6	5.2	36	4.8	4.0	3	C			0.0013	N/A
Styrene	100-42-5	4.4%	45	0.15	0.72	0.34	0.34	0.33	1	O(I)			0.00033	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	45	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	13%	45	0.081	0.081	0.34	0.33	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	24%	45	0.044	0.065	0.35	0.18	0.062	0.035	R			0.0018	N/A
Toluene	108-88-3	98%	45	2.6	4.9	26	17	3.8	5	O(I)			0.00075	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	60%	45	0.70	1.7	11	0.84	1.1					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	45	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	20%	45	0.066	0.071	0.33	0.22	0.087	1	O(C)			0.000087	N/A
1,1,2-Trichloroethane	79-00-5	4.4%	45	0.087	0.31	1.5	0.14	0.17	0.4	O(P-C)	0.000016	O(I)	0.00042	2.7×10^{-6}
Trichloroethene (TCE)	79-01-6	16%	45	0.17	0.64	3.8	0.75	0.34	0.6	O(C)	0.000002	O(C)	0.00056	6.8×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	87%	45	1.5	2.8	19	1.7	2.2	0.7	L(R(h))			0.0032	N/A
1,3,5-Trimethylbenzene	108-67-8	16%	45	0.19	0.42	1.4	0.84	0.30	0.006	L(P)			0.05	N/A
1,2,4-Trimethylbenzene	95-63-6	49%	45	0.59	1.3	8.4	2.1	0.93	0.007	L(R(p))			0.13	N/A
Vinyl Acetate	108-05-4	100%	16	3.5	4.2	15	14	5.6	0.2	O(I)			0.028	N/A
Vinyl Chloride	75-01-4	2.2%	45	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	6.7%	45	0.067	0.20	0.20	0.20	0.12	0.2	O(I)			0.00059	N/A
o-Xylene	95-47-6	22%	45	0.61	0.56	4.1	1.3	0.78	0.1	O(I)			0.0078	N/A
m+p-Xylenes	106-42-3	89%	45	0.82	1.0	5.6	3.1	1.1	0.1	O(I)			0.011	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Acetone	67-64-1	89%	53	9.5	10	59	29	12	31	A			0.00038	N/A
Acrolein	107-02-8	62%	42	1.5	1.7	11	3.2	2.0	0.00002	O(I)			98	N/A
Benzene	71-43-2	89%	53	0.73	0.48	2.3	1.8	0.83	0.03	O(I)	0.0000078	O(I)	0.028	6.5x10⁻⁶
Benzyl Chloride	100-44-7	0%	53	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	53	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	53	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	3.8%	53	N/A	N/A	0.70	0.66	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	9.4%	53	0.20	0.027	0.35	0.24	0.21	0.002	O(I)	0.00003	O(I)	0.10	6.3x10⁻⁶
Carbon Disulfide	75-15-0	21%	53	0.068	0.11	0.59	0.25	0.096	0.7	O(I)			0.00014	N/A
Carbon Tetrachloride	56-23-5	57%	53	0.23	0.19	0.50	0.50	0.28	0.19	O(D-A)	0.000015	O(I)	0.0015	4.2x10⁻⁶
Chlorobenzene	108-90-7	0%	53	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	53	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	23%	53	0.073	0.059	0.20	0.20	0.083	0.098	O(A)	0.000023	I	0.00085	1.9x10⁻⁶
Chloromethane	74-87-3	85%	53	0.74	0.37	1.3	1.3	0.84	0.09	O(I)			0.0094	N/A
Cyclohexane	100-82-7	53%	53	0.18	0.076	0.52	0.34	0.19	6	I			0.000032	N/A
Dibromochloromethane	124-48-1	0%	53	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	53	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	53	N/A	N/A	0.092	0.09	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	36%	53	0.13	0.12	0.60	0.44	0.16	0.8	O(I)	0.000011	O(C)	0.0002	1.7x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	53	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	83%	53	1.8	0.79	3.0	2.7	2.0	1.5	ACGIH			0.0013	N/A
1,1-Dichloroethane	75-34-3	0%	53	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	5.7%	53	0.045	0.045	0.28	0.19	0.057	2.4	O(A)	0.000026	O(I)	0.000024	1.5x10⁻⁶
t-1,2-Dichloroethene	156-60-5	0%	53	N/A	N/A	0.17	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	53	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	40%	53	0.15	0.11	0.49	0.42	0.17	1	O(A)	4.7x10⁻⁷	O(I)	0.00017	8.2x10⁻⁸
1,2-Dichloropropane	78-87-5	0%	53	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	53	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.9%	53	N/A	N/A	0.36	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	53	N/A	N/A	0.23	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	13%	53	0.17	0.19	1.4	0.26	0.22	3.6	O(D-A)	0.0000077	O(C)	0.000061	1.7x10⁻⁶
Ethanol	64-17-5	47%	53	12	18	63	52	16	100	L(IDEM)			0.00016	N/A
Ethyl Acetate	141-78-6	58%	53	0.34	0.54	3.1	1.7	0.47	0.37	ACGIH			0.0013	N/A
Ethylbenzene	100-41-4	75%	53	0.30	0.41	2.9	0.82	0.40	1	O(I)	0.0000025	C	0.0004	1.0x10⁻⁶
p-Ethyltoluene	622-96-8	26%	53	0.22	0.069	0.59	0.36	0.24					N/A	N/A
Heptane	142-82-5	62%	53	0.28	0.27	1.4	0.82	0.35	0.43	ACGIH			0.00082	N/A
Hexachlorobutadiene	87-68-3	0%	53	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	85%	53	0.53	0.39	2.2	1.5	0.60	0.7	O(I)			0.00085	N/A
Isopropanol	67-63-0	55%	53	0.47	0.62	2.9	1.9	0.62	7	C			0.000088	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	85%	53	1.7	1.0	4.5	4.1	1.9	5	I			0.00039	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	58%	53	0.25	0.20	0.98	0.70	0.29	3	O(I)			0.000097	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	77%	53	0.45	0.32	1.7	1.2	0.49	0.057	L(I)			0.0086	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	53	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	81%	53	0.64	0.60	2.6	2.4	0.79	3	C			0.00026	N/A
Styrene	100-42-5	5.7%	53	0.21	0.012	0.26	0.23	0.22	1	O(I)			0.00022	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	53	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	7.5%	53	0.20	0.026	0.34	0.20	0.21	0.27	O(A)	0.0000059	O(C)	0.00078	1.2×10^{-6}
Tetrahydrofuran (THF)	109-99-9	17%	53	0.17	0.071	0.53	0.27	0.18	0.035	R			0.0052	N/A
Toluene	108-88-3	85%	53	1.4	1.1	6.0	3.8	1.6	5	O(I)			0.00032	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	74%	53	0.48	0.16	0.77	0.69	0.52					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	53	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	5.7%	53	0.06	0.041	0.27	0.15	0.071	1	O(C)			0.000071	N/A
1,1,2-Trichloroethane	79-00-5	1.9%	53	N/A	N/A	0.22	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	32%	53	0.23	0.38	2.1	1.0	0.32	0.6	O(C)	0.000002	O(C)	0.00053	6.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	91%	53	0.90	0.40	1.4	1.4	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	15%	53	0.079	0.11	0.59	0.31	0.11	0.006	L(P)			0.018	N/A
1,2,4-Trimethylbenzene	95-63-6	77%	53	0.44	0.38	2.4	1.1	0.54	0.007	L(R(p))			0.077	N/A
Vinyl Acetate	108-05-4	96%	53	3.9	4.9	23	17	4.9	0.2	O(I)			0.025	N/A
Vinyl Chloride	75-01-4	0%	53	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	53	N/A	N/A	0.12	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	77%	53	0.34	0.48	3.2	1.0	0.48	0.1	O(I)			0.0048	N/A
m+p-Xylenes	106-42-3	81%	53	0.91	1.4	9.9	2.6	1.3	0.1	O(I)			0.013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	52	26	26	88	86	31	31	A			0.001	N/A
Acrolein	107-02-8	96%	52	1.2	0.69	3.5	2.5	1.4	0.00002	O(I)			68	N/A
Benzene	71-43-2	100%	52	0.99	1.0	5.8	3.8	1.2	0.03	O(I)	0.0000078	O(I)	0.041	9.7×10^{-6}
Benzyl Chloride	100-44-7	0%	52	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	52	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	35%	52	0.32	0.18	1.0	0.78	0.36	0.005	O(I)			0.073	N/A
1,3-Butadiene	106-99-0	50%	52	0.13	0.10	0.71	0.31	0.16	0.002	O(I)	0.00003	O(I)	0.08	4.8×10^{-6}
Carbon Disulfide	75-15-0	42%	52	0.29	0.31	1.8	1.1	0.37	0.7	O(I)			0.00053	N/A
Carbon Tetrachloride	56-23-5	7.7%	52	0.33	0.075	0.63	0.57	0.35	0.19	O(D-A)	0.000015	O(I)	0.0018	5.2×10^{-6}
Chlorobenzene	108-90-7	0%	52	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.9%	52	N/A	N/A	0.16	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	25%	52	0.19	0.16	1.0	0.48	0.22	0.098	O(A)	0.000023	I	0.0022	5.1×10^{-6}
Chloromethane	74-87-3	100%	52	0.95	0.64	4.1	2.5	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	58%	52	0.18	0.22	1.5	0.45	0.23	6	I			0.000039	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	52	N/A	N/A	0.13	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	5.8%	52	0.25	0.10	0.84	0.27	0.28	0.8	O(I)	0.000011	O(C)	0.00035	3.0×10^{-6}
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A	0.24	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	52	3.0	2.4	15	8.4	3.6	1.5	ACGIH			0.0024	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	5.8%	52	0.12	0.015	0.20	0.12	0.13	2.4	O(A)	0.000026	O(I)	0.000052	3.3×10^{-6}
t-1,2-Dichloroethene	156-60-5	0%	52	N/A	N/A	0.061	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	52	N/A	N/A	0.094	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	71%	52	0.29	0.27	1.7	0.90	0.35	1	O(A)	4.7×10^{-7}	O(I)	0.00035	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	52	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.9%	52	N/A	N/A	0.21	0.12	N/A					N/A	N/A
1,4-Dioxane	123-91-1	1.9%	52	N/A	N/A	0.14	0.094	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	52	60	120	610	380	88	100	L(IDEM)			0.00088	N/A
Ethyl Acetate	141-78-6	40%	52	0.22	0.27	1.7	0.83	0.28	0.37	ACGIH			0.00077	N/A
Ethylbenzene	100-41-4	42%	52	0.37	0.36	2.1	1.3	0.48	1	O(I)	0.0000025	C	0.00048	1.2×10^{-6}
p-Ethyltoluene	622-96-8	19%	52	0.13	0.22	1.1	0.69	0.18					N/A	N/A
Heptane	142-82-5	88%	52	0.36	0.38	2.0	1.4	0.45	0.43	ACGIH			0.001	N/A
Hexachlorobutadiene	87-68-3	1.9%	52	N/A	N/A	0.33	0.33	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	100%	52	0.70	0.84	4.2	3.3	0.92	0.7	O(I)			0.0013	N/A
Isopropanol	67-63-0	94%	52	0.81	1.2	7.8	3.4	1.1	7	C			0.00015	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	96%	52	2.2	2.1	12	8.0	2.7	5	I			0.00053	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	56%	52	0.17	0.094	0.66	0.33	0.19	3	O(I)			0.000063	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	77%	52	0.32	0.25	1.3	0.98	0.38	0.057	L(I)			0.0066	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	52	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	98%	52	0.98	0.71	3.0	2.2	1.2	3	C			0.00038	N/A
Styrene	100-42-5	13%	52	0.14	0.04	0.30	0.25	0.14	1	O(I)			0.00014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	12%	52	0.29	0.068	0.61	0.47	0.31	0.27	O(A)	0.0000059	O(C)	0.0011	1.8x10⁻⁶
Tetrahydrofuran (THF)	109-99-9	25%	52	0.12	0.19	0.68	0.62	0.17	0.035	R			0.0048	N/A
Toluene	108-88-3	100%	52	2.1	2.7	15	9.0	2.8	5	O(I)			0.00055	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	100%	52	0.60	0.37	2.5	1.5	0.69					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.37	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	52	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	17%	52	0.30	0.091	0.81	0.46	0.32	0.6	O(C)	0.000002	O(C)	0.00053	6.3x10⁻⁷
Trichlorofluoromethane (F-11)	75-69-4	100%	52	1.7	1.4	8.4	5.6	2.0	0.7	L(R(h))			0.0029	N/A
1,3,5-Trimethylbenzene	108-67-8	15%	52	0.27	0.12	0.93	0.44	0.30	0.006	L(P)			0.049	N/A
1,2,4-Trimethylbenzene	95-63-6	60%	52	0.49	0.69	3.2	2.6	0.64	0.007	L(R(p))			0.091	N/A
Vinyl Acetate	108-05-4	65%	52	1.8	1.9	10	6.7	2.2	0.2	O(I)			0.011	N/A
Vinyl Chloride	75-01-4	0%	52	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	52	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	73%	52	0.39	0.52	2.6	1.7	0.52	0.1	O(I)			0.0052	N/A
m+p-Xylenes	106-42-3	73%	52	1.0	1.3	6.8	4.3	1.3	0.1	O(I)			0.013	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	86%	42	1.8	1.7	8.6	4.8	2.3	0.03	O(I)	0.0000078	O(I)	0.075	1.8×10^{-5}
Bromomethane	74-83-9	0%	42	N/A	N/A		N/A	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	0%	42	N/A	N/A		N/A	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	42	N/A	N/A	0.54	0.55	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	0%	42	N/A	N/A	0.95	0.95	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	0%	42	N/A	N/A		N/A	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	81%	42	0.76	0.33	1.5	1.4	0.84	0.09	O(I)			0.0094	N/A
Cyclohexane	100-82-7	67%	42	0.45	0.48	2.7	1.5	0.58	6	I			0.000097	N/A
1,2-Dibromoethane	106-93-4	0%	42	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	4.8%	42	N/A	N/A	0.36	0.36	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	19%	42	0.37	0.035	0.48	0.47	0.38	0.8	O(I)	0.000011	O(C)	0.00047	4.2×10^{-6}
o-Dichlorobenzene	95-50-1	0%	42	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	42	2.2	0.59	3.8	3.4	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	42	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	42	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	42	N/A	N/A		N/A	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	45%	42	0.56	0.31	1.3	1.3	0.62	1	O(A)	4.7×10^{-7}	O(I)	0.00062	2.9×10^{-7}
1,2-Dichloropropane	78-87-5	12%	42	0.88	0.27	2.4	1.2	0.97	0.004	O(I)	0.000019	O(R)	0.24	1.8×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	42	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	42	N/A	N/A		N/A	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	31%	42	2.6	0.60	4.1	4.0	2.7					N/A	N/A
Ethylbenzene	100-41-4	100%	42	0.87	0.78	3.9	2.5	1.1	1	O(I)	0.0000025	C	0.0011	2.7×10^{-6}
p-Ethyltoluene	622-96-8	60%	42	0.54	0.42	2.1	1.3	0.64					N/A	N/A
Heptane	142-82-5	83%	42	0.74	0.70	2.7	2.3	0.94	0.43	ACGIH			0.0022	N/A
Hexachlorobutadiene	87-68-3	2.4%	42	N/A	N/A	0.11	0.11	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	88%	42	1.6	1.6	8.1	4.6	2.0	0.7	O(I)			0.0029	N/A
Propene	115-07-1	100%	42	2.2	0.98	5.5	4.1	2.6	3	C			0.00086	N/A
Styrene	100-42-5	74%	42	0.77	0.77	3.5	2.3	0.98	1	O(I)			0.00098	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	42	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	2.4%	42	N/A	N/A	1.4	1.4	N/A	0.27	O(A)	0.0000059	O(C)	N/A	N/A
Toluene	108-88-3	100%	42	14	11	43	41	17	5	O(I)			0.0035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	19%	42	0.48	0.073	0.77	0.61	0.51					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	4.8%	42	0.89	0.31	2.3	0.82	1.0	0.2	O(H)			0.0051	N/A
1,1,1-Trichloroethane	71-55-6	0%	42	N/A	N/A	2.2	2.2	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	42	N/A	N/A	0.80	0.82	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	33%	42	1.3	1.2	6.3	4.7	1.7	0.6	O(C)	0.000002	O(C)	0.0028	3.3×10^{-6}
Trichlorofluoromethane (F-11)	75-69-4	71%	42	0.84	0.36	1.8	1.6	0.96	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	69%	42	0.59	0.42	2.2	1.5	0.74	0.006	L(P)			0.12	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	42	3.5	1.8	8.5	6.4	4.0	0.007	L(R(p))			0.57	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	42	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	42	N/A	N/A		N/A	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	76%	42	1.1	1.1	5.9	3.3	1.4	0.1	O(I)			0.014	N/A
m+p-Xylenes	106-42-3	98%	42	2.9	2.5	12	7.8	3.6	0.1	O(I)			0.036	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	97%	59	1.7	1.6	8.0	5.7	2.1	0.03	O(I)	0.0000078	O(I)	0.069	1.6×10^{-5}
Bromomethane	74-83-9	22%	59	0.058	0.12	0.74	0.35	0.081	0.005	O(I)			0.016	N/A
Carbon Tetrachloride	56-23-5	3.4%	59	1.9	0.045	2.2	1.0	1.9	0.19	O(D-A)	0.000015	O(I)	0.01	2.9×10^{-5}
Chlorobenzene	108-90-7	6.8%	59	N/A	N/A	0.41	0.41	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	17%	59	0.029	0.026	0.63	0.63	0.034	10	O(I)			0.0000034	N/A
Chloroform	67-66-3	3.4%	59	N/A	N/A	0.83	0.83	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	98%	59	1.0	0.23	1.7	1.4	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	61%	59	0.38	0.29	1.5	1.2	0.41	6	I			0.000069	N/A
1,2-Dibromoethane	106-93-4	3.4%	59	N/A	N/A	0.84	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.7%	59	N/A	N/A	0.30	0.30	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	17%	59	0.13	0.22	1.1	0.66	0.18	0.8	O(I)	0.000011	O(C)	0.00023	2.0×10^{-6}
o-Dichlorobenzene	95-50-1	3.4%	59	0.09	0.23	0.36	0.36	0.14	0.6	R			0.00024	N/A
Dichlorodifluoromethane (F-12)	75-71-8	97%	59	2.6	0.94	4.8	4.1	2.8	1.5	ACGIH			0.0018	N/A
1,1-Dichloroethane	75-34-3	5.1%	59	0.16	0.69	1.0	0.41	0.31	0.5	O(H)	0.0000016	O(C)	0.00062	4.9×10^{-7}
1,2-Dichloroethane	107-06-2	3.4%	59	N/A	N/A	0.28	0.28	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	12%	59	0.21	0.40	0.79	0.55	0.30	0.03	R			0.01	N/A
Dichloromethane	75-09-2	51%	59	0.73	0.62	3.4	2.3	0.87	1	O(A)	4.7×10^{-7}	O(I)	0.00087	4.1×10^{-7}
1,2-Dichloropropane	78-87-5	27%	59	0.18	0.36	2.2	0.65	0.26	0.004	O(I)	0.000019	O(R)	0.066	5.0×10^{-6}
c-1,3-Dichloropropene	10061-01-3	3.4%	59	N/A	N/A	1.2	1.2	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	14%	59	0.30	0.54	1.0	0.77	0.43	0.02	L(IDEM)	0.000004		0.022	1.7×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	59	N/A	N/A	0.56	0.56	N/A					N/A	N/A
Ethylbenzene	100-41-4	98%	59	0.91	0.74	4.4	2.3	1.1	1	O(I)	0.0000025	C	0.0011	2.7×10^{-6}
p-Ethyltoluene	622-96-8	83%	59	0.59	0.59	3.8	1.8	0.74					N/A	N/A
Heptane	142-82-5	98%	59	0.82	0.74	4.6	2.3	0.98	0.43	ACGIH			0.0023	N/A
Hexachlorobutadiene	87-68-3	1.7%	59	N/A	N/A	0.75	0.75	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	97%	59	1.4	1.4	8.8	4.2	1.8	0.7	O(I)			0.0025	N/A
Propene	115-07-1	98%	59	1.6	1.1	5.3	4.3	1.9	3	C			0.00063	N/A
Styrene	100-42-5	71%	59	1.2	2.5	12	9.8	1.8	1	O(I)			0.0018	N/A
1,1,2,2-Tetrachloroethane	79-34-5	17%	59	0.082	0.14	0.41	0.41	0.12			0.000058	O(I)	N/A	6.8×10^{-6}
Tetrachloroethene (PCE)	127-18-4	10%	59	0.25	0.52	0.75	0.75	0.37	0.27	O(A)	0.0000059	O(C)	0.0014	2.2×10^{-6}
Toluene	108-88-3	98%	59	11	11	51	33	14	5	O(I)			0.0027	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	64%	59	0.62	0.28	2.2	1.0	0.68					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.7%	59	N/A	N/A	0.45	0.45	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	59	N/A	N/A	0.82	0.82	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	5.1%	59	N/A	N/A	0.44	0.44	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.1%	59	0.097	0.31	1.8	0.86	0.17	0.6	O(C)	0.000002	O(C)	0.00028	3.3×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	92%	59	1.1	0.33	1.9	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	71%	59	0.64	0.64	4.5	1.6	0.79	0.006	L(P)			0.13	N/A
1,2,4-Trimethylbenzene	95-63-6	100%	59	3.4	2.0	11	6.9	3.9	0.007	L(R(p))			0.56	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	1.7%	59	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.7%	59	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	93%	59	2.1	3.7	19	16	2.9	0.1	O(I)			0.029	N/A
m+p-Xylenes	106-42-3	98%	59	3.0	2.6	14	8.2	3.6	0.1	O(I)			0.036	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Benzene	71-43-2	100%	54	2.5	2.0	9.1	7.7	3.0	0.03	O(I)	0.0000078	O(I)	0.10	2.4×10^{-5}
Bromomethane	74-83-9	26%	54	N/A	N/A	0.39	0.39	N/A	0.005	O(I)			N/A	N/A
Carbon Tetrachloride	56-23-5	3.7%	54	0.47	2.1	0.82	0.82	0.94	0.19	O(D-A)	0.000015	O(I)	0.005	1.4×10^{-5}
Chlorobenzene	108-90-7	5.6%	54	0.078	0.16	0.55	0.18	0.11	1	O(C)			0.00011	N/A
Chloroethane	75-00-3	11%	54	N/A	N/A	0.24	0.24	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	11%	54	0.059	0.088	0.20	0.20	0.078	0.098	O(A)	0.000023	I	0.0008	1.8×10^{-6}
Chloromethane	74-87-3	94%	54	0.78	0.37	1.6	1.5	0.87	0.09	O(I)			0.0096	N/A
Cyclohexane	100-82-7	61%	54	0.41	0.28	1.2	1.0	0.48	6	I			0.00008	N/A
1,2-Dibromoethane	106-93-4	0%	54	N/A	N/A	0.77	0.77	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.7%	54	0.21	1.1	0.48	0.48	0.47					N/A	N/A
p-Dichlorobenzene	106-46-7	19%	54	0.38	0.38	0.66	0.60	0.47	0.8	O(I)	0.000011	O(C)	0.00059	5.2×10^{-6}
o-Dichlorobenzene	95-50-1	1.9%	54	N/A	N/A	0.48	0.48	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	54	2.2	0.74	3.5	3.3	2.4	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	1.9%	54	N/A	N/A	1.3	1.3	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	3.7%	54	N/A	N/A	0.49	0.49	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
c-1,2-Dichloroethene	156-59-2	5.6%	54	0.13	0.44	0.40	0.40	0.23	0.03	R			0.0078	N/A
Dichloromethane	75-09-2	56%	54	0.62	0.97	5.7	2.5	0.87	1	O(A)	4.7×10^{-7}	O(I)	0.00087	4.1×10^{-7}
1,2-Dichloropropane	78-87-5	0%	54	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	54	N/A	N/A	0.54	0.54	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	3.7%	54	0.14	0.68	0.41	0.41	0.30	0.02	L(IDEM)	0.000004		0.015	1.2×10^{-6}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.9%	54	N/A	N/A	0.42	0.42	N/A					N/A	N/A
Ethylbenzene	100-41-4	100%	54	0.87	0.74	3.5	2.8	1.0	1	O(I)	0.0000025	C	0.001	2.6×10^{-6}
p-Ethyltoluene	622-96-8	91%	54	0.74	0.64	3.2	2.1	0.89					N/A	N/A
Heptane	142-82-5	100%	54	0.78	0.66	3.1	2.5	0.94	0.43	ACGIH			0.0022	N/A
Hexachlorobutadiene	87-68-3	3.7%	54	0.16	0.39	1.1	1.1	0.26	0.09	O(P-C)	0.000022	O(I)	0.0029	5.6×10^{-6}
Hexane	110-54-3	98%	54	1.4	1.3	6.0	5.3	1.7	0.7	O(I)			0.0025	N/A
Propene	115-07-1	100%	54	2.1	1.5	7.1	6.0	2.6	3	C			0.00086	N/A
Styrene	100-42-5	41%	54	0.47	0.64	4.7	1.3	0.60	1	O(I)			0.0006	N/A
1,1,2,2-Tetrachloroethane	79-34-5	19%	54	0.082	0.089	0.48	0.48	0.10			0.000058	O(I)	N/A	6.0×10^{-6}
Tetrachloroethene (PCE)	127-18-4	3.7%	54	0.14	0.49	0.41	0.41	0.25	0.27	O(A)	0.0000059	O(C)	0.00093	1.5×10^{-6}
Toluene	108-88-3	100%	54	14	14	89	45	18	5	O(I)			0.0035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	35%	54	0.55	0.092	1.1	0.67	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	3.7%	54	0.075	0.089	0.55	0.54	0.096	0.2	O(H)			0.00048	N/A
1,1,1-Trichloroethane	71-55-6	7.4%	54	0.12	0.32	0.98	0.98	0.20	1	O(C)			0.0002	N/A
1,1,2-Trichloroethane	79-00-5	5.6%	54	0.071	0.15	0.55	0.55	0.11	0.4	O(P-C)	0.000016	O(I)	0.00027	1.7×10^{-6}
Trichloroethene (TCE)	79-01-6	1.9%	54	N/A	N/A	0.32	0.32	N/A	0.6	O(C)	0.000002	O(C)	N/A	N/A
Trichlorofluoromethane (F-11)	75-69-4	78%	54	1.0	0.29	1.6	1.5	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	61%	54	0.64	0.59	3.5	1.9	0.74	0.006	L(P)			0.12	N/A
1,2,4-Trimethylbenzene	95-63-6	98%	54	1.9	1.2	5.2	4.4	2.1	0.007	L(R(p))			0.30	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Vinyl Chloride	75-01-4	0%	54	N/A	N/A	0.28	0.28	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	54	N/A	N/A	0.24	0.24	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	89%	54	1.0	0.82	3.6	3.2	1.3	0.1	O(I)			0.013	N/A
m+p-Xylenes	106-42-3	98%	54	2.7	2.2	9.9	8.7	3.2	0.1	O(I)			0.032	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	52	10	9.3	44	29	13	31	A			0.00041	N/A
Benzene	71-43-2	90%	52	1.3	1.4	7.8	5.4	1.6	0.03	O(I)	0.0000078	O(I)	0.054	1.3x10⁻⁵
Benzyl Chloride	100-44-7	17%	52	0.15	0.35	1.7	1.2	0.23	0.00066	ACGIH	0.000049	O(C)	0.35	1.1x10⁻⁵
Bromodichloromethane	75-27-4	7.7%	52	N/A	N/A	0.13	0.13	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	17%	52	0.047	0.089	0.50	0.43	0.07	0.005	O(I)			0.014	N/A
1,3-Butadiene	106-99-0	7.7%	52	0.051	0.18	0.91	0.62	0.093	0.002	O(I)	0.00003	O(I)	0.046	2.8x10⁻⁶
Carbon Disulfide	75-15-0	42%	52	1.1	1.1	5.5	4.0	1.4	0.7	O(I)			0.002	N/A
Carbon Tetrachloride	56-23-5	1.9%	52	N/A	N/A	0.063	0.063	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	0%	52	N/A	N/A		N/A	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	37%	52	0.13	0.13	0.69	0.69	0.16	10	O(I)			0.000016	N/A
Chloroform	67-66-3	9.6%	52	N/A	N/A	0.098	0.093	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	85%	52	2.3	3.7	16	13	3.1	0.09	O(I)			0.034	N/A
Cyclohexane	100-82-7	37%	52	0.11	0.17	0.83	0.52	0.15	6	I			0.000026	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A		N/A	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	5.8%	52	0.20	1.1	0.82	0.84	0.48					N/A	N/A
p-Dichlorobenzene	106-46-7	15%	52	0.11	0.19	0.84	0.51	0.16	0.8	O(I)	0.000011	O(C)	0.0002	1.7x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	52	5.9	15	86	47	9.9	1.5	ACGIH			0.0066	N/A
1,1-Dichloroethane	75-34-3	9.6%	52	N/A	N/A	0.041	0.041	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	52	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	52	N/A	N/A		N/A	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	15%	52	N/A	N/A	0.28	0.24	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	31%	52	0.22	0.38	2.0	1.0	0.31	1	O(A)	4.7x10⁻⁷	O(I)	0.00031	1.4x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A		N/A	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	5.8%	52	N/A	N/A	0.82	0.77	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	7.7%	52	N/A	N/A	3.2	3.2	N/A					N/A	N/A
1,4-Dioxane	123-91-1	3.8%	52	2.7	0.33	4.4	3.1	2.7	3.6	O(D-A)	0.0000077	O(C)	0.00076	2.1x10⁻⁵
Ethanol	64-17-5	98%	52	38	39	140	120	48	100	L(IDEM)			0.00048	N/A
Ethyl Acetate	141-78-6	85%	52	0.40	0.50	2.8	1.5	0.50	0.37	ACGIH			0.0014	N/A
Ethylbenzene	100-41-4	65%	52	0.34	0.56	3.0	1.8	0.48	1	O(I)	0.0000025	C	0.00048	1.2x10⁻⁶
p-Ethyltoluene	622-96-8	29%	52	0.25	0.34	1.8	1.1	0.33					N/A	N/A
Heptane	142-82-5	71%	52	0.27	0.35	1.6	1.4	0.35	0.43	ACGIH			0.00082	N/A
Hexachlorobutadiene	87-68-3	0%	52	N/A	N/A	1.5	1.5	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	73%	52	0.67	0.88	4.0	3.5	0.88	0.7	O(I)			0.0013	N/A
Isopropanol	67-63-0	63%	52	1.0	1.2	5.2	4.2	1.3	7	C			0.00019	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	79%	52	1.5	1.3	5.6	4.7	1.8	5	I			0.00036	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	35%	52	0.45	1.4	8.9	3.0	0.82	3	O(I)			0.00027	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	27%	52	0.66	2.6	17	2.3	1.3	0.057	L(I)			0.022	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	12%	52	0.069	0.14	0.25	0.25	0.10	3	O(I)	2.6×10^{-7}	O(C)	0.000034	2.6×10^{-8}
Propene	115-07-1	98%	52	3.1	4.1	19	13	4.1	3	C			0.0014	N/A
Styrene	100-42-5	13%	52	0.094	0.16	0.77	0.43	0.13	1	O(I)			0.00013	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	17%	52	0.10	0.26	1.6	1.0	0.17	0.27	O(A)	0.0000059	O(C)	0.00063	1.0×10^{-6}
Tetrahydrofuran (THF)	109-99-9	62%	52	0.11	0.12	0.47	0.41	0.14	0.035	R			0.004	N/A
Toluene	108-88-3	100%	52	5.3	6.4	29	21	6.8	5	O(I)			0.0014	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	38%	52	0.56	0.054	0.77	0.69	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.9%	52	N/A	N/A	0.47	0.47	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	12%	52	N/A	N/A	1.0	0.98	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	5.8%	52	0.07	0.14	1.2	1.2	0.11	0.6	O(C)	0.000002	O(C)	0.00018	2.1×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	87%	52	0.96	0.29	1.5	1.4	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	25%	52	0.25	0.44	1.5	1.1	0.36	0.006	L(P)			0.06	N/A
1,2,4-Trimethylbenzene	95-63-6	29%	52	0.41	1.0	4.6	3.8	0.64	0.007	L(R(p))			0.091	N/A
Vinyl Chloride	75-01-4	5.8%	52	N/A	N/A	0.51	0.51	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	52	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	23%	52	0.31	0.69	3.3	2.3	0.48	0.1	O(I)			0.0048	N/A
m+p-Xylenes	106-42-3	90%	52	1.2	2.0	9.5	7.4	1.6	0.1	O(I)			0.016	N/A

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Acetone	67-64-1	98%	52	14	6.4	36	26	16	31	A			0.00051	N/A
Benzene	71-43-2	100%	52	1.4	1.2	8.0	3.5	1.7	0.03	O(I)	0.0000078	O(I)	0.057	1.3x10⁻⁵
Benzyl Chloride	100-44-7	1.9%	52	N/A	N/A	0.73	0.73	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	1.9%	52	N/A	N/A	0.20	0.20	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A		N/A	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	37%	52	0.078	0.12	0.50	0.43	0.10	0.005	O(I)			0.021	N/A
1,3-Butadiene	106-99-0	38%	52	0.31	0.62	2.4	2.1	0.46	0.002	O(I)	0.00003	O(I)	0.23	1.4x10⁻⁵
Carbon Disulfide	75-15-0	58%	52	0.16	0.10	0.45	0.47	0.18	0.7	O(I)			0.00026	N/A
Carbon Tetrachloride	56-23-5	1.9%	52	N/A	N/A	0.13	0.13	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	1.9%	52	N/A	N/A	0.046	0.046	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	25%	52	0.084	0.32	0.80	0.79	0.16	10	O(I)			0.000016	N/A
Chloroform	67-66-3	33%	52	N/A	N/A	0.049	0.049	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	88%	52	1.4	1.6	8.3	6.6	1.8	0.09	O(I)			0.019	N/A
Cyclohexane	100-82-7	58%	52	0.13	0.19	1.0	0.55	0.18	6	I			0.00003	N/A
Dibromochloromethane	124-48-1	3.8%	52	N/A	N/A	0.085	0.085	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A		N/A	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	12%	52	0.16	0.28	0.90	0.35	0.22					N/A	N/A
p-Dichlorobenzene	106-46-7	17%	52	0.17	0.34	1.1	0.53	0.26	0.8	O(I)	0.000011	O(C)	0.00032	2.8x10⁻⁶
o-Dichlorobenzene	95-50-1	0%	52	N/A	N/A		N/A	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	77%	52	2.0	1.1	3.9	3.5	2.3	1.5	ACGIH			0.0016	N/A
1,1-Dichloroethane	75-34-3	0%	52	N/A	N/A		N/A	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	52	N/A	N/A		N/A	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.9%	52	N/A	N/A	0.04	0.04	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	25%	52	N/A	N/A	0.32	0.30	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	73%	52	0.83	1.2	5.2	4.5	1.1	1	O(A)	4.7x10⁻⁷	O(I)	0.0011	5.2x10⁻⁷
1,2-Dichloropropane	78-87-5	9.6%	52	N/A	N/A	0.32	0.32	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	52	N/A	N/A		N/A	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	42%	52	N/A	N/A	0.82	0.68	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	44%	52	0.084	0.056	1.8	1.7	0.098					N/A	N/A
1,4-Dioxane	123-91-1	3.8%	52	N/A	N/A	0.11	0.11	N/A	3.6	O(D-A)	0.0000077	O(C)	N/A	N/A
Ethanol	64-17-5	100%	52	52	33	160	140	60	100	L(IDEM)			0.0006	N/A
Ethyl Acetate	141-78-6	96%	52	0.58	0.83	4.3	2.4	0.79	0.37	ACGIH			0.0021	N/A
Ethylbenzene	100-41-4	88%	52	0.48	0.56	3.6	1.5	0.61	1	O(I)	0.0000025	C	0.00061	1.5x10⁻⁶
p-Ethyltoluene	622-96-8	56%	52	0.30	0.40	1.7	1.4	0.39					N/A	N/A
Heptane	142-82-5	83%	52	0.30	0.40	2.6	0.98	0.40	0.43	ACGIH			0.00093	N/A
Hexachlorobutadiene	87-68-3	0%	52	N/A	N/A		N/A	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	92%	52	0.84	1.2	7.3	3.5	1.2	0.7	O(I)			0.0017	N/A
Isopropanol	67-63-0	92%	52	1.6	1.6	5.9	5.4	2.0	7	C			0.00028	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	98%	52	1.8	0.94	6.1	3.8	2.1	5	I			0.00041	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean μg/m³	KM St. Dev. μg/m³	Max Detect μg/m³	97th Percentile μg/m³	95% KM(t) UCL μg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(μg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	54%	52	0.22	0.21	170	170	0.27	3	O(I)			0.00009	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	52%	52	0.20	0.28	2.2	2.3	0.27	0.057	L(I)			0.0048	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	3.8%	52	0.054	0.13	0.28	0.28	0.087	3	O(I)	2.6×10^{-7}	O(C)	0.000029	2.3×10^{-8}
Propene	115-07-1	96%	52	4.0	7.2	31	26	5.7	3	C			0.0019	N/A
Styrene	100-42-5	25%	52	0.10	0.17	0.98	0.40	0.14	1	O(I)			0.00014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A		N/A	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	38%	52	0.15	0.28	1.6	0.95	0.22	0.27	O(A)	0.0000059	O(C)	0.0008	1.3×10^{-6}
Tetrahydrofuran (THF)	109-99-9	87%	52	0.15	0.18	0.94	0.53	0.19	0.035	R			0.0055	N/A
Toluene	108-88-3	100%	52	8.3	8.7	40	29	11	5	O(I)			0.0021	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	35%	52	0.41	0.30	0.61	0.61	0.47					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A		N/A	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	48%	52	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A		N/A	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	19%	52	0.075	0.097	0.89	0.91	0.097	0.6	O(C)	0.000002	O(C)	0.00016	1.9×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	52	1.2	0.26	1.9	1.7	1.2	0.7	L(R(h))			0.0018	N/A
1,3,5-Trimethylbenzene	108-67-8	46%	52	0.29	0.34	1.6	1.2	0.37	0.006	L(P)			0.062	N/A
1,2,4-Trimethylbenzene	95-63-6	44%	52	0.40	0.69	3.4	2.3	0.59	0.007	L(R(p))			0.084	N/A
Vinyl Chloride	75-01-4	0%	52	N/A	N/A		N/A	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	52	N/A	N/A	0.04	0.04	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	54%	52	0.56	0.74	4.3	2.0	0.74	0.1	O(I)			0.0074	N/A
m+p-Xylenes	106-42-3	100%	52	1.7	2.3	15	6.1	2.3	0.1	O(I)			0.023	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	93%	56	8.8	7.4	34	29	10	31	A			0.00034	N/A
Benzene	71-43-2	100%	56	1.3	0.89	4.7	3.5	1.5	0.03	O(I)	0.0000078	O(I)	0.05	1.2×10^{-5}
Benzyl Chloride	100-44-7	23%	56	0.78	0.83	5.2	2.4	0.98	0.00066	ACGIH	0.000049	O(C)	1.5	4.8×10^{-5}
Bromodichloromethane	75-27-4	32%	56	0.087	0.074	0.71	0.74	0.10			0.000037	C	N/A	3.7×10^{-6}
Bromoform	75-25-2	0%	56	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	38%	56	0.37	0.43	1.2	0.85	0.47	0.005	O(I)			0.093	N/A
1,3-Butadiene	106-99-0	16%	56	1.0	7.7	54	0.77	2.9	0.002	O(I)	0.00003	O(I)	1.4	8.6×10^{-5}
Carbon Disulfide	75-15-0	29%	56	0.084	0.087	0.34	0.28	0.11	0.7	O(I)			0.00015	N/A
Carbon Tetrachloride	56-23-5	3.6%	56	0.31	0.47	0.75	0.75	0.42	0.19	O(D-A)	0.000015	O(I)	0.0022	6.3×10^{-6}
Chlorobenzene	108-90-7	8.9%	56	0.055	0.087	0.61	0.60	0.074	1	O(C)			0.000074	N/A
Chloroethane	75-00-3	29%	56	0.079	0.14	0.77	0.45	0.11	10	O(I)			0.000011	N/A
Chloroform	67-66-3	8.9%	56	0.059	0.093	0.50	0.49	0.078	0.098	O(A)	0.000023	I	0.0008	1.8×10^{-6}
Chloromethane	74-87-3	70%	56	0.58	1.3	10	1.5	0.89	0.09	O(I)			0.0098	N/A
Cyclohexane	100-82-7	46%	56	0.19	0.26	1.3	0.69	0.25	6	I			0.000042	N/A
Dibromochloromethane	124-48-1	5.4%	56	0.11	0.25	0.97	0.94	0.17			0.000027	C	N/A	4.6×10^{-6}
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	16%	56	0.084	0.26	0.63	0.60	0.15					N/A	N/A
p-Dichlorobenzene	106-46-7	20%	56	0.09	0.23	1.0	1.0	0.15	0.8	O(I)	0.000011	O(C)	0.00019	1.7×10^{-6}
o-Dichlorobenzene	95-50-1	3.6%	56	N/A	N/A	0.81	0.84	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	56	1.3	0.59	2.4	2.2	1.4	1.5	ACGIH			0.00096	N/A
1,1-Dichloroethane	75-34-3	0%	56	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	25%	56	N/A	N/A	0.40	0.40	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	8.9%	56	N/A	N/A	0.40	0.40	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	27%	56	0.059	0.087	0.41	0.40	0.079	0.03	R			0.0026	N/A
Dichloromethane	75-09-2	38%	56	0.34	0.49	1.8	1.6	0.45	1	O(A)	4.7×10^{-7}	O(I)	0.00045	2.1×10^{-7}
1,2-Dichloropropane	78-87-5	0%	56	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	8.9%	56	0.064	0.10	0.41	0.41	0.086					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	11%	56	0.068	0.13	0.47	0.45	0.10	0.02	L(IDEM)	0.000004		0.005	4.0×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	29%	56	0.47	1.0	6.7	2.0	0.70					N/A	N/A
1,4-Dioxane	123-91-1	11%	56	0.061	0.15	0.60	0.61	0.094	3.6	O(D-A)	0.0000077	O(C)	0.000026	7.2×10^{-7}
Ethanol	64-17-5	82%	56	26	29	130	100	33	100	L(IDEM)			0.00033	N/A
Ethyl Acetate	141-78-6	61%	56	0.40	0.90	4.9	2.4	0.61	0.37	ACGIH			0.0017	N/A
Ethylbenzene	100-41-4	77%	56	0.42	0.43	2.0	1.6	0.52	1	O(I)	0.0000025	C	0.00052	1.3×10^{-6}
p-Ethyltoluene	622-96-8	45%	56	0.30	0.38	2.2	0.98	0.39					N/A	N/A
Heptane	142-82-5	77%	56	0.40	0.33	1.8	1.1	0.49	0.43	ACGIH			0.0011	N/A
Hexachlorobutadiene	87-68-3	0%	56	N/A	N/A	0.59	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	91%	56	0.77	0.70	3.6	2.7	0.95	0.7	O(I)			0.0014	N/A
Isopropanol	67-63-0	70%	56	1.3	2.4	14	6.6	1.8	7	C			0.00026	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	88%	56	2.0	2.2	11	8.3	2.5	5	I			0.00051	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	25%	56	0.14	0.20	0.37	0.37	0.19	3	O(I)			0.000063	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	36%	56	0.29	1.0	7.1	1.4	0.53	0.057	L(I)			0.0094	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	25%	56	N/A	N/A	0.41	0.40	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	96%	56	1.1	0.79	3.4	2.8	1.3	3	C			0.00043	N/A
Styrene	100-42-5	32%	56	0.089	0.26	0.66	0.68	0.15	1	O(I)			0.00015	N/A
1,1,2,2-Tetrachloroethane	79-34-5	7.1%	56	N/A	N/A	0.70	0.69	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	23%	56	0.11	0.23	0.79	0.81	0.16	0.27	O(A)	0.0000059	O(C)	0.0006	9.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	68%	56	0.15	0.23	1.4	0.59	0.20	0.035	R			0.0058	N/A
Toluene	108-88-3	100%	56	2.9	2.4	14	7.9	3.4	5	O(I)			0.00069	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	7.1%	56	0.61	0.25	0.84	0.84	0.67					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	56	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	20%	56	0.066	0.066	0.54	0.54	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	3.6%	56	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	43%	56	0.059	0.046	0.55	0.54	0.07	0.6	O(C)	0.000002	O(C)	0.00012	1.4×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	79%	56	0.84	0.30	1.5	1.3	0.90	0.7	L(R(h))			0.0013	N/A
1,3,5-Trimethylbenzene	108-67-8	52%	56	0.20	0.28	1.0	0.84	0.26	0.006	L(P)			0.043	N/A
1,2,4-Trimethylbenzene	95-63-6	39%	56	0.31	0.54	3.1	1.3	0.43	0.007	L(R(p))			0.061	N/A
Vinyl Chloride	75-01-4	8.9%	56	2.2	17	100	7.7	6.1	0.1	O(I)	0.0000088	O(I)	0.061	5.4×10^{-5}
Vinylidene Chloride	75-35-4	0%	56	N/A	N/A	0.36	0.36	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	30%	56	0.52	0.78	3.5	2.1	0.74	0.1	O(I)			0.0074	N/A
m+p-Xylenes	106-42-3	95%	56	1.4	1.8	9.5	6.1	1.8	0.1	O(I)			0.018	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	56	7.9	6.9	33	24	9.5	31	A			0.00031	N/A
Benzene	71-43-2	88%	56	1.1	0.83	3.4	3.1	1.3	0.03	O(I)	0.0000078	O(I)	0.043	1.0×10^{-5}
Benzyl Chloride	100-44-7	52%	56	1.9	1.3	4.6	3.8	2.2	0.00066	ACGIH	0.000049	O(C)	3.4	1.1×10^{-4}
Bromodichloromethane	75-27-4	14%	56	0.13	0.27	0.36	0.36	0.19			0.000037	C	N/A	6.9×10^{-6}
Bromoform	75-25-2	0%	56	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	41%	56	0.54	0.78	5.7	1.2	0.70	0.005	O(I)			0.14	N/A
1,3-Butadiene	106-99-0	20%	56	120	930	6600	22	330	0.002	O(I)	0.00003	O(I)	170	9.9×10^{-3}
Carbon Disulfide	75-15-0	7.1%	56	0.084	0.21	0.16	0.16	0.13	0.7	O(I)			0.00019	N/A
Carbon Tetrachloride	56-23-5	14%	56	0.14	0.23	0.88	0.51	0.19	0.19	O(D-A)	0.000015	O(I)	0.001	2.9×10^{-6}
Chlorobenzene	108-90-7	0%	56	N/A	N/A	0.21	0.21	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	13%	56	1.4	11	74	0.45	4.0	10	O(I)			0.0004	N/A
Chloroform	67-66-3	16%	56	0.063	0.078	0.12	0.12	0.083	0.098	O(A)	0.000023	I	0.00085	1.9×10^{-6}
Chloromethane	74-87-3	75%	56	0.62	0.68	3.3	2.3	0.78	0.09	O(I)			0.0087	N/A
Cyclohexane	100-82-7	71%	56	0.86	1.3	6.3	3.4	1.2	6	I			0.00019	N/A
Dibromochloromethane	124-48-1	0%	56	N/A	N/A	0.42	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	1.8%	56	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	8.9%	56	0.14	0.21	0.36	0.29	0.19					N/A	N/A
p-Dichlorobenzene	106-46-7	14%	56	0.13	0.20	0.42	0.35	0.17	0.8	O(I)	0.000011	O(C)	0.00022	1.9×10^{-6}
o-Dichlorobenzene	95-50-1	1.8%	56	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	86%	56	1.7	1.5	8.2	4.0	2.1	1.5	ACGIH			0.0014	N/A
1,1-Dichloroethane	75-34-3	0%	56	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	11%	56	0.061	0.11	0.27	0.27	0.089	2.4	O(A)	0.000026	O(I)	0.000037	2.3×10^{-6}
t-1,2-Dichloroethene	156-60-5	16%	56	0.044	0.044	0.13	0.13	0.056	0.06	R			0.00093	N/A
c-1,2-Dichloroethene	156-59-2	14%	56	0.071	0.091	0.20	0.19	0.091	0.03	R			0.003	N/A
Dichloromethane	75-09-2	43%	56	0.35	0.52	2.2	1.7	0.49	1	O(A)	4.7×10^{-7}	O(I)	0.00049	2.3×10^{-7}
1,2-Dichloropropane	78-87-5	5.4%	56	0.46	2.8	17	0.65	1.1	0.004	O(I)	0.000019	O(R)	0.28	2.1×10^{-5}
c-1,3-Dichloropropene	10061-01-3	3.6%	56	0.068	0.17	0.19	0.19	0.11					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	16%	56	0.059	0.064	0.32	0.27	0.077	0.02	L(IDEM)	0.000004		0.0039	3.1×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	30%	56	0.61	0.77	2.9	2.2	0.77					N/A	N/A
1,4-Dioxane	123-91-1	14%	56	0.054	0.12	0.85	0.86	0.079	3.6	O(D-A)	0.0000077	O(C)	0.000022	6.1×10^{-7}
Ethanol	64-17-5	71%	56	7.7	13	63	36	10	100	L(IDEM)			0.0001	N/A
Ethyl Acetate	141-78-6	88%	56	0.79	1.3	7.7	3.6	1.1	0.37	ACGIH			0.0029	N/A
Ethylbenzene	100-41-4	88%	56	0.48	0.52	3.5	1.3	0.61	1	O(I)	0.0000025	C	0.00061	1.5×10^{-6}
p-Ethyltoluene	622-96-8	63%	56	0.44	0.30	1.7	1.2	0.49					N/A	N/A
Heptane	142-82-5	75%	56	0.33	0.28	1.2	0.94	0.39	0.43	ACGIH			0.00091	N/A
Hexachlorobutadiene	87-68-3	5.4%	56	1.0	0.28	2.5	1.1	1.1	0.09	O(P-C)	0.000022	O(I)	0.012	2.3×10^{-5}
Hexane	110-54-3	89%	56	0.74	0.63	3.2	1.9	0.88	0.7	O(I)			0.0013	N/A
Isopropanol	67-63-0	52%	56	0.52	0.62	2.4	1.9	0.66	7	C			0.000095	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	56	2.7	3.0	18	11	3.5	5	I			0.00071	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	30%	56	0.37	0.94	4.6	3.3	0.57	3	O(I)			0.00019	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	41%	56	1.2	5.3	41	3.4	2.5	0.057	L(I)			0.044	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	11%	56	0.12	0.29	0.61	0.30	0.19	3	O(I)	2.6×10^{-7}	O(C)	0.000064	5.0×10^{-8}
Propene	115-07-1	95%	56	1.5	1.0	5.4	3.4	1.7	3	C			0.00057	N/A
Styrene	100-42-5	30%	56	0.14	0.16	0.55	0.40	0.17	1	O(I)			0.00017	N/A
1,1,2,2-Tetrachloroethane	79-34-5	14%	56	4.0	1.4	7.4	7.5	4.3			0.000058	O(I)	N/A	2.5×10^{-4}
Tetrachloroethene (PCE)	127-18-4	29%	56	0.13	0.17	0.81	0.30	0.16	0.27	O(A)	0.0000059	O(C)	0.0006	9.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	52%	56	0.35	1.0	7.5	0.86	0.59	0.035	R			0.017	N/A
Toluene	108-88-3	88%	56	2.1	2.1	9.3	6.8	2.6	5	O(I)			0.00052	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	59%	56	0.41	0.34	1.8	0.77	0.49					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	5.4%	56	0.50	0.20	0.71	0.69	0.55	0.2	O(H)			0.0027	N/A
1,1,1-Trichloroethane	71-55-6	11%	56	0.071	0.11	0.24	0.24	0.098	1	O(C)			0.000098	N/A
1,1,2-Trichloroethane	79-00-5	7.1%	56	0.093	0.21	0.41	0.41	0.14	0.4	O(P-C)	0.000016	O(I)	0.00035	2.3×10^{-6}
Trichloroethene (TCE)	79-01-6	18%	56	0.059	0.053	0.30	0.31	0.07	0.6	O(C)	0.000002	O(C)	0.00012	1.4×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	75%	56	0.90	0.52	2.1	2.0	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	27%	56	0.20	0.31	1.5	0.93	0.28	0.006	L(P)			0.046	N/A
1,2,4-Trimethylbenzene	95-63-6	61%	56	0.69	0.49	2.4	2.1	0.79	0.007	L(R(p))			0.11	N/A
Vinyl Chloride	75-01-4	1.8%	56	N/A	N/A	5.0	0.22	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	56	N/A	N/A	0.62	0.63	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	52%	56	0.42	0.43	1.7	1.6	0.52	0.1	O(I)			0.0052	N/A
m+p-Xylenes	106-42-3	98%	56	1.2	1.0	5.3	3.6	1.5	0.1	O(I)			0.015	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	52	11	9.5	46	38	14	31	A			0.00045	N/A
Acrolein	107-02-8	95%	20	2.2	2.0	7.9	6.4	3.0	0.00002	O(I)			150	N/A
Benzene	71-43-2	94%	52	1.6	1.1	6.3	4.1	1.8	0.03	O(I)	0.0000078	O(I)	0.061	1.4×10^{-5}
Benzyl Chloride	100-44-7	0%	52	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	3.8%	52	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	52	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	42%	52	0.25	0.38	1.4	1.4	0.34	0.005	O(I)			0.068	N/A
1,3-Butadiene	106-99-0	21%	52	0.099	0.15	0.86	0.17	0.14	0.002	O(I)	0.00003	O(I)	0.069	4.1×10^{-6}
Carbon Disulfide	75-15-0	13%	52	0.11	0.093	0.56	0.31	0.13	0.7	O(I)			0.00019	N/A
Carbon Tetrachloride	56-23-5	15%	52	0.10	0.11	0.44	0.35	0.13	0.19	O(D-A)	0.000015	O(I)	0.00066	1.9×10^{-6}
Chlorobenzene	108-90-7	1.9%	52	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	19%	52	0.05	0.061	0.10	0.10	0.066	10	O(I)			0.0000066	N/A
Chloroform	67-66-3	23%	52	0.054	0.04	0.30	0.30	0.063	0.098	O(A)	0.000023	I	0.00065	1.5×10^{-6}
Chloromethane	74-87-3	96%	52	0.91	0.41	2.3	1.5	0.99	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	52%	52	0.25	0.41	2.4	1.1	0.34	6	I			0.000057	N/A
Dibromochloromethane	124-48-1	0%	52	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	52	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	13%	52	0.14	0.24	0.90	0.56	0.20					N/A	N/A
p-Dichlorobenzene	106-46-7	27%	52	0.17	0.46	2.9	0.78	0.29	0.8	O(I)	0.000011	O(C)	0.00036	3.2×10^{-6}
o-Dichlorobenzene	95-50-1	1.9%	52	N/A	N/A	0.19	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	52	2.3	0.84	4.0	3.8	2.5	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	1.9%	52	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	19%	52	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.9%	52	N/A	N/A	0.28	0.28	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	52	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	25%	52	0.38	0.25	1.8	0.94	0.45	1	O(A)	4.7×10^{-7}	O(I)	0.00045	2.1×10^{-7}
1,2-Dichloropropane	78-87-5	0%	52	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	1.9%	52	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.9%	52	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	52	N/A	N/A	2.1	2.1	N/A					N/A	N/A
1,4-Dioxane	123-91-1	19%	52	0.13	0.26	0.43	0.35	0.19	3.6	O(D-A)	0.0000077	O(C)	0.000053	1.5×10^{-6}
Ethanol	64-17-5	94%	52	26	26	120	88	32	100	L(IDEM)			0.00032	N/A
Ethyl Acetate	141-78-6	87%	52	0.54	0.54	2.8	1.8	0.65	0.37	ACGIH			0.0018	N/A
Ethylbenzene	100-41-4	94%	52	0.48	0.43	2.3	1.6	0.61	1	O(I)	0.0000025	C	0.00061	1.5×10^{-6}
p-Ethyltoluene	622-96-8	58%	52	0.43	0.49	2.6	1.8	0.54					N/A	N/A
Heptane	142-82-5	96%	52	0.57	0.61	4.1	1.5	0.74	0.43	ACGIH			0.0017	N/A
Hexachlorobutadiene	87-68-3	1.9%	52	N/A	N/A	0.38	0.39	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	94%	52	0.95	1.0	6.2	2.9	1.2	0.7	O(I)			0.0017	N/A
Isopropanol	67-63-0	98%	52	1.3	1.1	5.6	3.7	1.5	7	C			0.00022	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	96%	52	2.1	1.7	7.7	6.2	2.5	5	I			0.00051	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	23%	52	0.45	2.6	18	0.45	1.1	3	O(I)			0.00036	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	12%	52	0.12	0.20	0.66	0.45	0.17	0.057	L(I)			0.003	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	52	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	52	2.2	1.3	6.0	5.3	2.6	3	C			0.00086	N/A
Styrene	100-42-5	19%	52	0.25	0.32	0.85	0.68	0.33	1	O(I)			0.00033	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	52	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	13%	52	0.075	0.088	0.33	0.33	0.10	0.27	O(A)	0.0000059	O(C)	0.00038	6.0×10^{-7}
Tetrahydrofuran (THF)	109-99-9	40%	52	0.077	0.11	0.41	0.35	0.10	0.035	R			0.0029	N/A
Toluene	108-88-3	98%	52	2.7	2.5	13	8.3	3.3	5	O(I)			0.00066	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	54%	52	0.50	0.15	0.77	0.77	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	52	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	13%	52	N/A	N/A	0.22	0.22	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	52	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	9.6%	52	0.064	0.097	0.13	0.13	0.086	0.6	O(C)	0.000002	O(C)	0.00014	1.7×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	90%	52	1.1	0.36	1.9	1.6	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	21%	52	0.15	0.27	1.1	0.93	0.22	0.006	L(P)			0.037	N/A
1,2,4-Trimethylbenzene	95-63-6	67%	52	0.69	0.89	4.2	3.3	0.89	0.007	L(R(p))			0.13	N/A
Vinyl Acetate	108-05-4	100%	13	4.6	9.2	36	26	9.5	0.2	O(I)			0.048	N/A
Vinyl Chloride	75-01-4	0%	52	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.9%	52	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	40%	52	0.43	0.65	3.2	2.0	0.61	0.1	O(I)			0.0061	N/A
m+p-Xylenes	106-42-3	94%	52	1.2	1.5	8.3	4.8	1.6	0.1	O(I)			0.016	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	51	7.4	7.1	36	26	9.0	31	A			0.00029	N/A
Acrolein	107-02-8	81%	42	1.9	2.0	9.2	8.5	2.5	0.00002	O(I)			130	N/A
Benzene	71-43-2	100%	51	1.2	0.77	4.3	2.8	1.4	0.03	O(I)	0.0000078	O(I)	0.047	1.1×10^{-5}
Benzyl Chloride	100-44-7	0%	51	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	51	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	51	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	2.0%	51	N/A	N/A	0.61	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	16%	51	0.055	0.097	0.49	0.27	0.077	0.002	O(I)	0.00003	O(I)	0.039	2.3×10^{-6}
Carbon Disulfide	75-15-0	24%	51	0.16	0.031	0.31	0.25	0.17	0.7	O(I)			0.00025	N/A
Carbon Tetrachloride	56-23-5	67%	51	0.25	0.18	0.50	0.50	0.29	0.19	O(D-A)	0.000015	O(I)	0.0015	4.3×10^{-6}
Chlorobenzene	108-90-7	2.0%	51	N/A	N/A	0.10	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	3.9%	51	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	22%	51	0.068	0.049	0.20	0.17	0.078	0.098	O(A)	0.000023	I	0.0008	1.8×10^{-6}
Chloromethane	74-87-3	96%	51	0.82	0.29	1.5	1.3	0.91	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	65%	51	0.14	0.11	0.38	0.33	0.17	6	I			0.000028	N/A
Dibromochloromethane	124-48-1	0%	51	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	51	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	3.9%	51	0.072	0.13	0.72	0.09	0.10					N/A	N/A
p-Dichlorobenzene	106-46-7	75%	51	0.33	0.43	2.5	1.4	0.43	0.8	O(I)	0.000011	O(C)	0.00054	4.8×10^{-6}
o-Dichlorobenzene	95-50-1	0%	51	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	96%	51	2.0	0.69	3.7	3.4	2.2	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	51	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	2.0%	51	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	2.0%	51	N/A	N/A	0.67	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	2.0%	51	N/A	N/A	0.16	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	55%	51	0.19	0.16	0.66	0.52	0.23	1	O(A)	4.7×10^{-7}	O(I)	0.00023	1.1×10^{-7}
1,2-Dichloropropane	78-87-5	0%	51	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	51	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	51	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	3.9%	51	0.29	0.041	0.49	0.26	0.29					N/A	N/A
1,4-Dioxane	123-91-1	22%	51	0.40	0.72	3.6	2.4	0.58	3.6	O(D-A)	0.0000077	O(C)	0.00016	4.4×10^{-6}
Ethanol	64-17-5	69%	51	36	52	190	190	48	100	L(IDEM)			0.00048	N/A
Ethyl Acetate	141-78-6	71%	51	0.40	0.35	1.7	1.4	0.50	0.37	ACGIH			0.0014	N/A
Ethylbenzene	100-41-4	94%	51	0.38	0.26	1.3	0.95	0.43	1	O(I)	0.0000025	C	0.00043	1.1×10^{-6}
p-Ethyltoluene	622-96-8	53%	51	0.17	0.15	0.54	0.42	0.20					N/A	N/A
Heptane	142-82-5	90%	51	0.40	0.22	0.98	0.82	0.45	0.43	ACGIH			0.001	N/A
Hexachlorobutadiene	87-68-3	0%	51	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	51	0.74	0.49	2.4	1.7	0.84	0.7	O(I)			0.0012	N/A
Isopropanol	67-63-0	61%	51	0.91	0.71	3.4	2.7	1.1	7	C			0.00015	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	96%	51	1.7	1.0	4.9	3.5	1.9	5	I			0.00039	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	63%	51	0.29	0.29	1.2	0.98	0.36	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	86%	51	0.49	0.45	2.1	1.5	0.61	0.057	L(I)			0.011	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	51	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	90%	51	0.72	0.53	2.5	2.1	0.86	3	C			0.00029	N/A
Styrene	100-42-5	9.8%	51	0.22	0.072	0.60	0.21	0.24	1	O(I)			0.00024	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	51	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	41%	51	0.14	0.15	0.88	0.34	0.18	0.27	O(A)	0.0000059	O(C)	0.00068	1.1×10^{-6}
Tetrahydrofuran (THF)	109-99-9	24%	51	0.065	0.089	0.30	0.30	0.089	0.035	R			0.0025	N/A
Toluene	108-88-3	98%	51	2.1	1.7	9.0	5.3	2.6	5	O(I)			0.00051	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	90%	51	0.51	0.13	0.77	0.69	0.54					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	51	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	5.9%	51	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	51	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	12%	51	0.07	0.059	0.32	0.21	0.086	0.6	O(C)	0.000002	O(C)	0.00014	1.7×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	98%	51	0.96	0.30	1.4	1.3	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	27%	51	0.12	0.15	0.54	0.49	0.15	0.006	L(P)			0.025	N/A
1,2,4-Trimethylbenzene	95-63-6	94%	51	0.59	0.46	1.8	1.6	0.69	0.007	L(R(p))			0.098	N/A
Vinyl Acetate	108-05-4	94%	51	4.9	5.3	33	15	6.0	0.2	O(I)			0.03	N/A
Vinyl Chloride	75-01-4	0%	51	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.9%	51	N/A	N/A	0.12	0.12	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	94%	51	0.48	0.36	1.8	1.3	0.56	0.1	O(I)			0.0056	N/A
m+p-Xylenes	106-42-3	98%	51	1.3	0.95	4.9	3.4	1.5	0.1	O(I)			0.015	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Acetone	67-64-1	92%	59	4.0	5.2	20	18	5.2	31	A			0.00017	N/A
Acrolein	107-02-8	97%	59	2.0	1.1	5.1	4.6	2.3	0.00002	O(I)			110	N/A
Benzene	71-43-2	100%	59	1.2	0.93	5.7	3.0	1.4	0.03	O(I)	0.0000078	O(I)	0.047	1.1×10^{-5}
Benzyl Chloride	100-44-7	0%	59	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	59	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	59	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	39%	59	0.27	0.16	0.81	0.66	0.31	0.005	O(I)			0.061	N/A
1,3-Butadiene	106-99-0	54%	59	0.13	0.12	0.86	0.29	0.16	0.002	O(I)	0.00003	O(I)	0.081	4.8×10^{-6}
Carbon Disulfide	75-15-0	32%	59	0.37	0.44	1.9	1.6	0.47	0.7	O(I)			0.00067	N/A
Carbon Tetrachloride	56-23-5	8.5%	59	0.33	0.053	0.50	0.50	0.34	0.19	O(D-A)	0.000015	O(I)	0.0018	5.1×10^{-6}
Chlorobenzene	108-90-7	0%	59	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.7%	59	N/A	N/A	0.37	0.16	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	10%	59	0.15	0.012	0.20	0.16	0.15	0.098	O(A)	0.000023	I	0.0015	3.5×10^{-6}
Chloromethane	74-87-3	98%	59	0.87	0.43	3.7	1.2	0.97	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	49%	59	0.16	0.12	0.69	0.48	0.19	6	I			0.000032	N/A
Dibromochloromethane	124-48-1	0%	59	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	59	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	0%	59	N/A	N/A	0.13	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	12%	59	0.26	0.072	0.60	0.41	0.27	0.8	O(I)	0.000011	O(C)	0.00034	3.0×10^{-6}
o-Dichlorobenzene	95-50-1	0%	59	N/A	N/A	0.24	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	59	2.6	1.6	14	3.0	3.0	1.5	ACGIH			0.002	N/A
1,1-Dichloroethane	75-34-3	0%	59	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	59	N/A	N/A	0.062	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	59	N/A	N/A	0.061	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	59	N/A	N/A	0.094	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	83%	59	0.30	0.26	1.7	0.83	0.35	1	O(A)	4.7×10^{-7}	O(I)	0.00035	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	0%	59	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	59	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	59	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	59	N/A	N/A	0.12	0.12	N/A					N/A	N/A
1,4-Dioxane	123-91-1	12%	59	0.17	0.19	1.3	0.29	0.21	3.6	O(D-A)	0.0000077	O(C)	0.000059	1.6×10^{-6}
Ethanol	64-17-5	98%	59	25	24	140	77	31	100	L(IDEM)			0.00031	N/A
Ethyl Acetate	141-78-6	37%	59	0.20	0.16	1.2	0.43	0.23	0.37	ACGIH			0.00063	N/A
Ethylbenzene	100-41-4	63%	59	0.39	0.39	1.9	1.3	0.48	1	O(I)	0.0000025	C	0.00048	1.2×10^{-6}
p-Ethyltoluene	622-96-8	17%	59	0.28	0.12	0.89	0.59	0.31					N/A	N/A
Heptane	142-82-5	93%	59	0.41	0.36	2.0	1.2	0.49	0.43	ACGIH			0.0011	N/A
Hexachlorobutadiene	87-68-3	0%	59	N/A	N/A	0.33	0.33	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	98%	59	0.81	0.81	4.2	2.8	0.99	0.7	O(I)			0.0014	N/A
Isopropanol	67-63-0	93%	59	0.57	0.42	1.9	1.5	0.66	7	C			0.000095	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	93%	59	1.6	1.0	4.9	4.1	1.8	5	I			0.00035	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	47%	59	0.19	0.14	0.78	0.61	0.22	3	O(I)			0.000074	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	76%	59	0.31	0.21	0.86	0.78	0.36	0.057	L(I)			0.0063	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	59	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	98%	59	1.1	0.77	3.7	2.4	1.2	3	C			0.00041	N/A
Styrene	100-42-5	15%	59	0.068	0.072	0.38	0.27	0.081	1	O(I)			0.000081	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	59	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	12%	59	0.29	0.088	0.81	0.49	0.31	0.27	O(A)	0.0000059	O(C)	0.0012	1.8×10^{-6}
Tetrahydrofuran (THF)	109-99-9	14%	59	0.38	0.065	0.62	0.59	0.38	0.035	R			0.011	N/A
Toluene	108-88-3	100%	59	2.6	2.7	13	11	3.2	5	O(I)			0.00064	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	97%	59	0.52	0.25	2.1	0.69	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	59	N/A	N/A	0.37	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	59	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	59	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	3.4%	59	0.28	0.18	1.3	0.21	0.33	0.6	O(C)	0.000002	O(C)	0.00055	6.6×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	59	1.3	0.67	6.1	1.5	1.5	0.7	L(R(h))			0.0021	N/A
1,3,5-Trimethylbenzene	108-67-8	14%	59	0.27	0.10	0.79	0.54	0.29	0.006	L(P)			0.048	N/A
1,2,4-Trimethylbenzene	95-63-6	66%	59	0.54	0.64	3.1	2.0	0.69	0.007	L(R(p))			0.098	N/A
Vinyl Acetate	108-05-4	59%	59	2.7	4.2	25	13	3.5	0.2	O(I)			0.018	N/A
Vinyl Chloride	75-01-4	0%	59	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	59	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	85%	59	0.43	0.48	2.3	1.7	0.56	0.1	O(I)			0.0056	N/A
m+p-Xylenes	106-42-3	88%	59	1.3	1.3	6.5	4.8	1.6	0.1	O(I)			0.016	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	44	9.3	6.4	28	26	11	31	A			0.00036	N/A
Benzene	71-43-2	82%	44	0.64	0.38	1.8	1.6	0.73	0.03	O(I)	0.0000078	O(I)	0.024	5.7×10^{-6}
Benzyl Chloride	100-44-7	23%	44	0.67	0.36	2.1	1.8	0.78	0.00066	ACGIH	0.000049	O(C)	1.2	3.8×10^{-5}
Bromodichloromethane	75-27-4	27%	44	0.08	0.094	0.71	0.74	0.11			0.000037	C	N/A	4.0×10^{-6}
Bromoform	75-25-2	0%	44	N/A	N/A	1.1	1.0	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	30%	44	0.43	0.54	1.4	0.93	0.58	0.005	O(I)			0.12	N/A
1,3-Butadiene	106-99-0	16%	44	0.046	0.071	0.097	0.097	0.066	0.002	O(I)	0.00003	O(I)	0.033	2.0×10^{-6}
Carbon Disulfide	75-15-0	52%	44	0.044	0.037	0.28	0.28	0.056	0.7	O(I)			0.00008	N/A
Carbon Tetrachloride	56-23-5	2.3%	44	N/A	N/A	0.82	0.75	N/A	0.19	O(D-A)	0.000015	O(I)	N/A	N/A
Chlorobenzene	108-90-7	9.1%	44	0.055	0.092	0.61	0.60	0.083	1	O(C)			0.000083	N/A
Chloroethane	75-00-3	14%	44	0.098	0.22	0.45	0.45	0.16	10	O(I)			0.000016	N/A
Chloroform	67-66-3	4.5%	44	N/A	N/A	0.50	0.49	N/A	0.098	O(A)	0.000023	I	N/A	N/A
Chloromethane	74-87-3	73%	44	1.1	4.5	31	1.1	2.3	0.09	O(I)			0.025	N/A
Cyclohexane	100-82-7	39%	44	0.33	0.48	2.6	1.4	0.45	6	I			0.000075	N/A
Dibromochloromethane	124-48-1	4.5%	44	0.13	0.28	0.97	0.94	0.20			0.000027	C	N/A	5.5×10^{-6}
1,2-Dibromoethane	106-93-4	0%	44	N/A	N/A	0.87	0.84	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	55%	44	0.96	2.9	14	10	1.7					N/A	N/A
p-Dichlorobenzene	106-46-7	43%	44	0.66	1.9	8.9	6.6	1.1	0.8	O(I)	0.000011	O(C)	0.0014	1.3×10^{-5}
o-Dichlorobenzene	95-50-1	14%	44	1.8	7.2	31	23	3.6	0.6	R			0.006	N/A
Dichlorodifluoromethane (F-12)	75-71-8	82%	44	1.4	0.74	3.8	2.4	1.6	1.5	ACGIH			0.0011	N/A
1,1-Dichloroethane	75-34-3	0%	44	N/A	N/A	0.41	0.41	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	18%	44	0.045	0.045	0.40	0.40	0.057	2.4	O(A)	0.000026	O(I)	0.000024	1.5×10^{-6}
t-1,2-Dichloroethene	156-60-5	6.8%	44	N/A	N/A	0.40	0.40	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	32%	44	0.079	0.15	0.41	0.40	0.12	0.03	R			0.004	N/A
Dichloromethane	75-09-2	16%	44	0.12	0.19	0.94	0.62	0.18	1	O(A)	4.7×10^{-7}	O(I)	0.00018	8.3×10^{-8}
1,2-Dichloropropane	78-87-5	0%	44	N/A	N/A	0.46	0.46	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	2.3%	44	N/A	N/A	0.41	0.41	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	6.8%	44	0.091	0.17	0.47	0.45	0.14	0.02	L(IDEM)	0.000004		0.0068	5.4×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	27%	44	0.34	0.65	2.0	1.9	0.51					N/A	N/A
1,4-Dioxane	123-91-1	20%	44	0.23	0.61	2.3	1.7	0.40	3.6	O(D-A)	0.0000077	O(C)	0.00011	3.0×10^{-6}
Ethanol	64-17-5	93%	44	24	26	140	93	31	100	L(IDEM)			0.00031	N/A
Ethyl Acetate	141-78-6	66%	44	0.26	0.40	1.8	1.6	0.36	0.37	ACGIH			0.00097	N/A
Ethylbenzene	100-41-4	55%	44	0.30	0.26	1.2	0.87	0.37	1	O(I)	0.0000025	C	0.00037	9.2×10^{-7}
p-Ethyltoluene	622-96-8	43%	44	0.21	0.26	0.84	0.74	0.28					N/A	N/A
Heptane	142-82-5	80%	44	0.34	0.27	1.2	1.1	0.41	0.43	ACGIH			0.00095	N/A
Hexachlorobutadiene	87-68-3	2.3%	44	N/A	N/A	0.75	0.60	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	80%	44	0.60	0.63	3.6	2.1	0.77	0.7	O(I)			0.0011	N/A
Isopropanol	67-63-0	73%	44	2.7	6.2	30	22	4.2	7	C			0.0006	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	93%	44	1.9	1.8	8.8	7.1	2.4	5	I			0.00048	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	39%	44	0.31	0.98	5.0	3.0	0.57	3	O(I)			0.00019	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	57%	44	1.3	3.9	18	14	2.3	0.057	L(I)			0.04	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	2.3%	44	N/A	N/A	0.41	0.40	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	91%	44	1.1	0.76	3.4	2.4	1.3	3	C			0.00044	N/A
Styrene	100-42-5	18%	44	0.064	0.18	0.66	0.68	0.11	1	O(I)			0.00011	N/A
1,1,2,2-Tetrachloroethane	79-34-5	4.5%	44	0.14	0.45	0.70	0.69	0.25			0.000058	O(I)	N/A	1.5×10^{-5}
Tetrachloroethene (PCE)	127-18-4	16%	44	0.14	0.37	1.6	0.81	0.23	0.27	O(A)	0.0000059	O(C)	0.00085	1.4×10^{-6}
Tetrahydrofuran (THF)	109-99-9	70%	44	0.16	0.24	1.4	0.59	0.22	0.035	R			0.0064	N/A
Toluene	108-88-3	100%	44	1.1	0.79	4.1	2.6	1.3	5	O(I)			0.00026	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	41%	44	0.57	0.47	1.8	1.3	0.70					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	2.3%	44	N/A	N/A	3.9	3.9	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	9.1%	44	N/A	N/A	0.54	0.54	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	9.1%	44	N/A	N/A	0.70	0.71	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	41%	44	0.07	0.064	0.55	0.54	0.086	0.6	O(C)	0.000002	O(C)	0.00014	1.7×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	84%	44	0.90	0.34	2.0	1.8	1.0	0.7	L(R(h))			0.0014	N/A
1,3,5-Trimethylbenzene	108-67-8	52%	44	0.24	0.35	1.5	0.93	0.32	0.006	L(P)			0.054	N/A
1,2,4-Trimethylbenzene	95-63-6	39%	44	0.18	0.23	1.0	0.49	0.24	0.007	L(R(p))			0.034	N/A
Vinyl Chloride	75-01-4	11%	44	1.9	15	81	0.061	5.6	0.1	O(I)	0.0000088	O(I)	0.056	5.0×10^{-5}
Vinylidene Chloride	75-35-4	4.5%	44	0.059	0.13	0.36	0.36	0.095	0.2	O(I)			0.00048	N/A
o-Xylene	95-47-6	34%	44	0.26	0.48	1.6	1.1	0.39	0.1	O(I)			0.0039	N/A
m+p-Xylenes	106-42-3	89%	44	0.74	1.0	4.6	4.0	1.0	0.1	O(I)			0.01	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	98%	60	8.8	9.5	48	33	11	31	A			0.00035	N/A
Benzene	71-43-2	87%	60	0.77	0.51	2.7	2.0	0.89	0.03	O(I)	0.0000078	O(I)	0.03	7.0×10^{-6}
Benzyl Chloride	100-44-7	42%	60	1.5	1.5	3.7	3.6	1.8	0.00066	ACGIH	0.000049	O(C)	2.7	8.9×10^{-5}
Bromodichloromethane	75-27-4	13%	60	0.094	0.17	0.47	0.36	0.13			0.000037	C	N/A	5.0×10^{-6}
Bromoform	75-25-2	0%	60	N/A	N/A	0.99	0.99	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	40%	60	0.43	0.47	1.8	1.5	0.50	0.005	O(I)			0.10	N/A
1,3-Butadiene	106-99-0	28%	60	0.093	0.22	1.6	0.20	0.14	0.002	O(I)	0.00003	O(I)	0.071	4.2×10^{-6}
Carbon Disulfide	75-15-0	13%	60	0.078	0.16	0.16	0.16	0.11	0.7	O(I)			0.00016	N/A
Carbon Tetrachloride	56-23-5	12%	60	0.094	0.11	0.44	0.38	0.12	0.19	O(D-A)	0.000015	O(I)	0.00063	1.8×10^{-6}
Chlorobenzene	108-90-7	3.3%	60	0.14	0.041	0.37	0.21	0.15	1	O(C)			0.00015	N/A
Chloroethane	75-00-3	15%	60	0.082	0.15	0.45	0.45	0.12	10	O(I)			0.000012	N/A
Chloroform	67-66-3	27%	60	0.063	0.059	0.29	0.13	0.078	0.098	O(A)	0.000023	I	0.0008	1.8×10^{-6}
Chloromethane	74-87-3	83%	60	0.64	0.51	1.8	1.8	0.76	0.09	O(I)			0.0085	N/A
Cyclohexane	100-82-7	73%	60	0.79	1.1	3.9	3.4	1.0	6	I			0.00017	N/A
Dibromochloromethane	124-48-1	1.7%	60	N/A	N/A	0.51	0.42	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A	0.14	0.14	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	43%	60	0.23	0.23	0.78	0.66	0.29					N/A	N/A
p-Dichlorobenzene	106-46-7	52%	60	0.28	0.21	0.90	0.66	0.33	0.8	O(I)	0.000011	O(C)	0.00041	3.6×10^{-6}
o-Dichlorobenzene	95-50-1	0%	60	N/A	N/A	0.43	0.43	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	93%	60	3.4	9.9	79	4.1	5.4	1.5	ACGIH			0.0036	N/A
1,1-Dichloroethane	75-34-3	3.3%	60	N/A	N/A	0.26	0.26	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	12%	60	0.065	0.23	0.27	0.27	0.12	2.4	O(A)	0.000026	O(I)	0.000049	3.1×10^{-6}
t-1,2-Dichloroethene	156-60-5	6.7%	60	0.095	0.20	0.20	0.13	0.14	0.06	R			0.0023	N/A
c-1,2-Dichloroethene	156-59-2	8.3%	60	0.071	0.14	0.20	0.19	0.10	0.03	R			0.0034	N/A
Dichloromethane	75-09-2	35%	60	0.28	0.33	1.3	0.90	0.35	1	O(A)	4.7×10^{-7}	O(I)	0.00035	1.6×10^{-7}
1,2-Dichloropropane	78-87-5	6.7%	60	1.6	9.2	48	9.2	3.6	0.004	O(I)	0.000019	O(R)	0.91	6.9×10^{-5}
c-1,3-Dichloropropene	10061-01-3	0%	60	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	15%	60	0.064	0.077	0.32	0.24	0.082	0.02	L(IDEM)	0.000004		0.0041	3.3×10^{-7}
Dichloro-Tetrafluoroethane (F-114)	76-14-2	23%	60	0.84	0.45	2.0	1.9	0.98					N/A	N/A
1,4-Dioxane	123-91-1	23%	60	0.14	0.47	0.85	0.86	0.24	3.6	O(D-A)	0.0000077	O(C)	0.000067	1.9×10^{-6}
Ethanol	64-17-5	85%	60	16	25	120	88	23	100	L(IDEM)			0.00023	N/A
Ethyl Acetate	141-78-6	80%	60	0.83	2.1	16	3.5	1.3	0.37	ACGIH			0.0035	N/A
Ethylbenzene	100-41-4	83%	60	0.28	0.30	1.9	1.0	0.35	1	O(I)	0.0000025	C	0.00035	8.7×10^{-7}
p-Ethyltoluene	622-96-8	45%	60	0.22	0.27	1.6	0.69	0.28					N/A	N/A
Heptane	142-82-5	83%	60	0.57	0.74	5.0	2.0	0.74	0.43	ACGIH			0.0017	N/A
Hexachlorobutadiene	87-68-3	10%	60	0.57	1.5	1.1	1.1	0.92	0.09	O(P-C)	0.000022	O(I)	0.01	2.0×10^{-5}
Hexane	110-54-3	93%	60	0.70	0.60	4.0	1.7	0.84	0.7	O(I)			0.0012	N/A
Isopropanol	67-63-0	65%	60	0.96	1.7	12	3.7	1.4	7	C			0.00019	N/A
Methyl Ethyl Ketone (MEK)	78-93-3	95%	60	3.0	3.2	17	12	3.5	5	I			0.00071	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Isobutyl Ketone (MIBK)	108-10-1	25%	60	0.36	0.61	3.6	1.4	0.49	3	O(I)			0.00016	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	47%	60	0.74	1.5	8.6	4.9	1.1	0.057	L(I)			0.019	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	12%	60	0.083	0.17	0.69	0.30	0.12	3	O(I)	2.6×10^{-7}	O(C)	0.00004	3.1×10^{-8}
Propene	115-07-1	95%	60	1.7	1.4	7.4	4.5	2.1	3	C			0.00069	N/A
Styrene	100-42-5	10%	60	0.11	0.17	0.55	0.25	0.14	1	O(I)			0.00014	N/A
1,1,2,2-Tetrachloroethane	79-34-5	12%	60	2.7	8.2	7.4	7.5	4.7			0.000058	O(I)	N/A	2.7×10^{-4}
Tetrachloroethene (PCE)	127-18-4	22%	60	0.12	0.19	0.88	0.30	0.16	0.27	O(A)	0.0000059	O(C)	0.00058	9.2×10^{-7}
Tetrahydrofuran (THF)	109-99-9	60%	60	0.25	0.22	1.4	0.65	0.30	0.035	R			0.0084	N/A
Toluene	108-88-3	88%	60	1.2	1.2	5.9	4.5	1.4	5	O(I)			0.00029	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	60%	60	0.38	0.26	0.77	0.69	0.44					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	5.0%	60	0.60	0.40	0.71	0.69	0.69	0.2	O(H)			0.0034	N/A
1,1,1-Trichloroethane	71-55-6	15%	60	0.066	0.082	0.24	0.24	0.087	1	O(C)			0.000087	N/A
1,1,2-Trichloroethane	79-00-5	1.7%	60	N/A	N/A	0.41	0.41	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	12%	60	0.091	0.13	0.30	0.31	0.12	0.6	O(C)	0.000002	O(C)	0.00021	2.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	82%	60	0.96	0.53	3.2	1.6	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	12%	60	0.16	0.20	1.1	0.40	0.20	0.006	L(P)			0.034	N/A
1,2,4-Trimethylbenzene	95-63-6	42%	60	0.34	0.45	2.4	1.1	0.44	0.007	L(R(p))			0.063	N/A
Vinyl Chloride	75-01-4	6.7%	60	N/A	N/A	0.22	0.22	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	1.7%	60	N/A	N/A	0.62	0.63	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	15%	60	0.18	0.31	1.8	0.95	0.25	0.1	O(I)			0.0025	N/A
m+p-Xylenes	106-42-3	93%	60	0.74	1.0	6.6	3.1	0.95	0.1	O(I)			0.0095	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	100%	55	13	8.3	46	31	15	31	A			0.00047	N/A
Acrolein	107-02-8	100%	27	3.0	3.2	13	9.4	3.9	0.00002	O(I)			190	N/A
Benzene	71-43-2	98%	55	1.1	0.67	4.2	2.6	1.2	0.03	O(I)	0.0000078	O(I)	0.04	9.5×10^{-6}
Benzyl Chloride	100-44-7	0%	55	N/A	N/A	0.40	0.40	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	1.8%	55	N/A	N/A	0.16	0.16	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	55	N/A	N/A	0.36	0.36	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	44%	55	0.29	0.39	1.8	1.4	0.39	0.005	O(I)			0.078	N/A
1,3-Butadiene	106-99-0	18%	55	0.064	0.11	0.18	0.17	0.088	0.002	O(I)	0.00003	O(I)	0.044	2.7×10^{-6}
Carbon Disulfide	75-15-0	7.3%	55	0.047	0.11	0.53	0.25	0.075	0.7	O(I)			0.00011	N/A
Carbon Tetrachloride	56-23-5	16%	55	0.19	0.21	0.31	0.31	0.24	0.19	O(D-A)	0.000015	O(I)	0.0013	3.6×10^{-6}
Chlorobenzene	108-90-7	1.8%	55	N/A	N/A	0.11	0.11	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	20%	55	0.034	0.032	0.11	0.10	0.04	10	O(I)			0.000004	N/A
Chloroform	67-66-3	22%	55	0.054	0.041	0.30	0.30	0.063	0.098	O(A)	0.000023	I	0.00065	1.5×10^{-6}
Chloromethane	74-87-3	96%	55	0.89	0.31	1.5	1.4	0.97	0.09	O(I)			0.011	N/A
Cyclohexane	100-82-7	58%	55	0.25	0.38	2.4	0.86	0.33	6	I			0.000056	N/A
Dibromochloromethane	124-48-1	0%	55	N/A	N/A	0.29	0.29	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	1.8%	55	N/A	N/A	0.26	0.26	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	58%	55	0.43	0.42	2.3	1.1	0.53					N/A	N/A
p-Dichlorobenzene	106-46-7	84%	55	0.66	0.44	2.4	1.4	0.78	0.8	O(I)	0.000011	O(C)	0.00098	8.6×10^{-6}
o-Dichlorobenzene	95-50-1	1.8%	55	N/A	N/A	0.78	0.19	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	98%	55	2.4	0.89	5.4	3.7	2.6	1.5	ACGIH			0.0017	N/A
1,1-Dichloroethane	75-34-3	0%	55	N/A	N/A	0.19	0.19	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	11%	55	N/A	N/A	0.15	0.15	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	11%	55	0.056	0.099	0.52	0.28	0.079	0.06	R			0.0013	N/A
c-1,2-Dichloroethene	156-59-2	0%	55	N/A	N/A	0.14	0.14	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	38%	55	0.26	0.27	1.1	1.0	0.32	1	O(A)	4.7×10^{-7}	O(I)	0.00032	1.5×10^{-7}
1,2-Dichloropropane	78-87-5	0%	55	N/A	N/A	0.14	0.14	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	55	N/A	N/A	0.22	0.22	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	1.8%	55	N/A	N/A	0.29	0.29	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.8%	55	N/A	N/A	2.1	2.1	N/A					N/A	N/A
1,4-Dioxane	123-91-1	15%	55	0.09	0.19	0.35	0.35	0.13	3.6	O(D-A)	0.0000077	O(C)	0.000037	1.0×10^{-6}
Ethanol	64-17-5	98%	55	50	55	260	230	60	100	L(IDEM)			0.0006	N/A
Ethyl Acetate	141-78-6	87%	55	0.61	0.76	3.2	2.9	0.79	0.37	ACGIH			0.0021	N/A
Ethylbenzene	100-41-4	82%	55	0.26	0.18	0.82	0.61	0.30	1	O(I)	0.0000025	C	0.0003	7.6×10^{-7}
p-Ethyltoluene	622-96-8	40%	55	0.19	0.22	1.1	0.54	0.25					N/A	N/A
Heptane	142-82-5	96%	55	0.61	0.57	3.9	1.5	0.78	0.43	ACGIH			0.0018	N/A
Hexachlorobutadiene	87-68-3	1.8%	55	N/A	N/A	0.38	0.39	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	93%	55	0.74	0.60	3.1	2.0	0.88	0.7	O(I)			0.0013	N/A
Isopropanol	67-63-0	98%	55	1.4	1.2	6.0	4.9	1.7	7	C			0.00025	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	98%	55	2.6	1.5	7.4	5.9	3.0	5	I			0.00059	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	15%	55	0.09	0.18	0.41	0.30	0.13	3	O(I)			0.000044	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	16%	55	0.18	0.41	2.4	0.57	0.29	0.057	L(I)			0.005	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	7.3%	55	N/A	N/A	0.13	0.13	N/A	3	O(I)	2.6x10⁻⁷	O(C)	N/A	N/A
Propene	115-07-1	95%	55	1.9	1.2	4.7	4.1	2.2	3	C			0.00075	N/A
Styrene	100-42-5	7.3%	55	0.077	0.12	0.47	0.34	0.11	1	O(I)			0.00011	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	55	N/A	N/A	0.37	0.37	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	9.1%	55	0.081	0.13	0.33	0.33	0.11	0.27	O(A)	0.0000059	O(C)	0.0004	6.4x10⁻⁷
Tetrahydrofuran (THF)	109-99-9	33%	55	0.074	0.12	0.65	0.35	0.10	0.035	R			0.003	N/A
Toluene	108-88-3	100%	55	1.2	0.75	3.2	3.1	1.4	5	O(I)			0.00027	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	60%	55	0.38	0.29	0.77	0.77	0.45					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	55	N/A	N/A	0.30	0.29	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	18%	55	0.066	0.071	0.22	0.22	0.082	1	O(C)			0.000082	N/A
1,1,2-Trichloroethane	79-00-5	0%	55	N/A	N/A	0.13	0.14	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	16%	55	0.064	0.075	0.13	0.13	0.086	0.6	O(C)	0.000002	O(C)	0.00014	1.7x10⁻⁷
Trichlorofluoromethane (F-11)	75-69-4	93%	55	1.1	0.29	1.6	1.6	1.2	0.7	L(R(h))			0.0017	N/A
1,3,5-Trimethylbenzene	108-67-8	9.1%	55	0.079	0.13	0.39	0.34	0.11	0.006	L(P)			0.018	N/A
1,2,4-Trimethylbenzene	95-63-6	47%	55	0.39	0.32	1.3	1.0	0.47	0.007	L(R(p))			0.067	N/A
Vinyl Acetate	108-05-4	100%	19	3.5	6.3	29	18	6.3	0.2	O(I)			0.032	N/A
Vinyl Chloride	75-01-4	1.8%	55	N/A	N/A	0.15	0.15	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	55	N/A	N/A	0.20	0.20	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	18%	55	0.13	0.20	0.78	0.52	0.17	0.1	O(I)			0.0017	N/A
m+p-Xylenes	106-42-3	80%	55	0.65	0.52	2.6	1.6	0.78	0.1	O(I)			0.0078	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Acetone	67-64-1	97%	60	6.7	7.6	41	23	8.3	31	A			0.00027	N/A
Acrolein	107-02-8	84%	49	1.4	0.92	5.3	3.7	1.6	0.00002	O(I)			82	N/A
Benzene	71-43-2	98%	60	0.89	0.64	3.4	2.8	1.0	0.03	O(I)	0.0000078	O(I)	0.034	8.0×10^{-6}
Benzyl Chloride	100-44-7	1.7%	60	N/A	N/A	0.19	0.19	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	0%	60	N/A	N/A	0.32	0.32	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	60	N/A	N/A	0.56	0.56	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	0%	60	N/A	N/A	0.61	0.62	N/A	0.005	O(I)			N/A	N/A
1,3-Butadiene	106-99-0	3.3%	60	0.27	0.016	0.35	0.20	0.27	0.002	O(I)	0.00003	O(I)	0.13	8.0×10^{-6}
Carbon Disulfide	75-15-0	48%	60	0.19	0.065	0.40	0.37	0.20	0.7	O(I)			0.00029	N/A
Carbon Tetrachloride	56-23-5	73%	60	0.31	0.13	0.63	0.50	0.34	0.19	O(D-A)	0.000015	O(I)	0.0018	5.1×10^{-6}
Chlorobenzene	108-90-7	1.7%	60	N/A	N/A	0.74	0.10	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	1.7%	60	N/A	N/A	0.73	0.74	N/A	10	O(I)			N/A	N/A
Chloroform	67-66-3	18%	60	0.068	0.059	0.24	0.24	0.083	0.098	O(A)	0.000023	I	0.00085	1.9×10^{-6}
Chloromethane	74-87-3	98%	60	0.87	0.29	1.5	1.4	0.93	0.09	O(I)			0.01	N/A
Cyclohexane	100-82-7	75%	60	0.31	0.41	3.2	0.65	0.41	6	I			0.000069	N/A
Dibromochloromethane	124-48-1	0%	60	N/A	N/A	0.48	0.48	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	60	N/A	N/A	0.76	0.76	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	6.7%	60	0.47	0.31	2.5	0.78	0.54					N/A	N/A
p-Dichlorobenzene	106-46-7	97%	60	0.90	0.96	7.2	2.5	1.1	0.8	O(I)	0.000011	O(C)	0.0014	1.3×10^{-5}
o-Dichlorobenzene	95-50-1	0%	60	N/A	N/A	0.10	0.10	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	97%	60	2.1	0.64	3.8	3.1	2.3	1.5	ACGIH			0.0015	N/A
1,1-Dichloroethane	75-34-3	0%	60	N/A	N/A	0.14	0.14	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	1.7%	60	N/A	N/A	0.19	0.19	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	1.7%	60	N/A	N/A	0.28	0.17	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	0%	60	N/A	N/A	0.11	0.11	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	58%	60	0.26	0.11	0.69	0.56	0.29	1	O(A)	4.7×10^{-7}	O(I)	0.00029	1.4×10^{-7}
1,2-Dichloropropane	78-87-5	0%	60	N/A	N/A	0.11	0.12	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	60	N/A	N/A	0.26	0.25	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	60	N/A	N/A	0.27	0.27	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	1.7%	60	N/A	N/A	0.28	0.24	N/A					N/A	N/A
1,4-Dioxane	123-91-1	25%	60	0.19	0.18	1.3	0.61	0.24	3.6	O(D-A)	0.0000077	O(C)	0.000066	1.8×10^{-6}
Ethanol	64-17-5	72%	60	60	170	1300	210	99	100	L(IDEM)			0.00099	N/A
Ethyl Acetate	141-78-6	77%	60	0.43	0.58	4.4	1.0	0.58	0.37	ACGIH			0.0016	N/A
Ethylbenzene	100-41-4	75%	60	0.22	0.15	0.95	0.52	0.26	1	O(I)	0.0000025	C	0.00026	6.4×10^{-7}
p-Ethyltoluene	622-96-8	15%	60	0.074	0.074	0.25	0.25	0.089					N/A	N/A
Heptane	142-82-5	88%	60	0.57	0.74	5.6	1.2	0.74	0.43	ACGIH			0.0017	N/A
Hexachlorobutadiene	87-68-3	0%	60	N/A	N/A	0.46	0.46	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	93%	60	0.77	1.1	8.4	1.7	1.0	0.7	O(I)			0.0015	N/A
Isopropanol	67-63-0	55%	60	0.79	0.98	6.2	3.4	1.0	7	C			0.00014	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	97%	60	1.9	1.2	5.3	5.3	2.2	5	I			0.00044	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	65%	60	0.34	0.18	0.82	0.74	0.38	3	O(I)			0.00013	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	90%	60	0.57	0.49	2.3	2.0	0.70	0.057	L(I)			0.012	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	60	N/A	N/A	0.18	0.18	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	95%	60	1.1	1.1	5.2	4.3	1.3	3	C			0.00044	N/A
Styrene	100-42-5	6.7%	60	0.072	0.14	0.51	0.19	0.11	1	O(I)			0.00011	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	60	N/A	N/A	0.21	0.21	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	17%	60	0.21	0.034	0.34	0.28	0.22	0.27	O(A)	0.0000059	O(C)	0.0008	1.3×10^{-6}
Tetrahydrofuran (THF)	109-99-9	23%	60	0.074	0.11	0.41	0.32	0.097	0.035	R			0.0028	N/A
Toluene	108-88-3	98%	60	1.4	1.4	10	3.2	1.7	5	O(I)			0.00034	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	95%	60	0.54	0.11	0.84	0.70	0.57					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	0%	60	N/A	N/A	0.42	0.42	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	0%	60	N/A	N/A	0.15	0.15	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	60	N/A	N/A	0.17	0.17	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	27%	60	0.086	0.075	0.32	0.21	0.11	0.6	O(C)	0.000002	O(C)	0.00018	2.1×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	98%	60	0.96	0.30	1.8	1.6	1.1	0.7	L(R(h))			0.0015	N/A
1,3,5-Trimethylbenzene	108-67-8	3.3%	60	N/A	N/A	0.18	0.18	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	77%	60	0.30	0.16	0.69	0.59	0.34	0.007	L(R(p))			0.048	N/A
Vinyl Acetate	108-05-4	97%	60	5.3	5.6	36	15	6.3	0.2	O(I)			0.032	N/A
Vinyl Chloride	75-01-4	0%	60	N/A	N/A	0.086	0.087	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	3.3%	60	0.20	0.051	0.48	0.14	0.21	0.2	O(I)			0.0011	N/A
o-Xylene	95-47-6	75%	60	0.22	0.13	0.78	0.52	0.25	0.1	O(I)			0.0025	N/A
m+p-Xylenes	106-42-3	87%	60	0.61	0.35	2.2	1.3	0.65	0.1	O(I)			0.0065	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC)		Inhalation Unit Risk (IUR)		Hazard Quotient	Risk Estimate
									mg/m³	Source	1/(µg/m³)	Source		
Acetone	67-64-1	100%	56	6.4	6.2	30	22	7.9	31	A			0.00025	N/A
Acrolein	107-02-8	98%	56	2.3	1.8	7.7	7.1	2.7	0.00002	O(I)			140	N/A
Benzene	71-43-2	100%	56	0.80	0.41	2.2	1.8	0.89	0.03	O(I)	0.0000078	O(I)	0.03	7.0x10⁻⁶
Benzyl Chloride	100-44-7	0%	56	N/A	N/A	0.062	0.062	N/A	0.00066	ACGIH	0.000049	O(C)	N/A	N/A
Bromodichloromethane	75-27-4	5.4%	56	N/A	N/A	0.14	0.15	N/A			0.000037	C	N/A	N/A
Bromoform	75-25-2	0%	56	N/A	N/A	0.44	0.43	N/A			0.0000011	O(I)	N/A	N/A
Bromomethane	74-83-9	39%	56	0.28	0.093	0.70	0.47	0.30	0.005	O(I)			0.06	N/A
1,3-Butadiene	106-99-0	52%	56	0.15	0.19	1.2	0.46	0.20	0.002	O(I)	0.00003	O(I)	0.098	5.9x10⁻⁶
Carbon Disulfide	75-15-0	50%	56	15	19	66	47	19	0.7	O(I)			0.028	N/A
Carbon Tetrachloride	56-23-5	8.9%	56	0.32	0.044	0.50	0.42	0.33	0.19	O(D-A)	0.000015	O(I)	0.0018	5.0x10⁻⁶
Chlorobenzene	108-90-7	7.1%	56	N/A	N/A	0.18	0.17	N/A	1	O(C)			N/A	N/A
Chloroethane	75-00-3	3.6%	56	0.18	0.0098	0.24	0.17	0.19	10	O(I)			0.000019	N/A
Chloroform	67-66-3	5.4%	56	0.15	0.027	0.29	0.15	0.16	0.098	O(A)	0.000023	I	0.0016	3.6x10⁻⁶
Chloromethane	74-87-3	100%	56	0.97	0.56	4.1	1.9	1.1	0.09	O(I)			0.012	N/A
Cyclohexane	100-82-7	70%	56	0.26	0.21	0.89	0.79	0.31	6	I			0.000052	N/A
Dibromochloromethane	124-48-1	0%	56	N/A	N/A	0.32	0.32	N/A			0.000027	C	N/A	N/A
1,2-Dibromoethane	106-93-4	0%	56	N/A	N/A	0.12	0.12	N/A	0.009	O(I)	0.0006	O(I)	N/A	N/A
m-Dichlorobenzene	541-73-1	1.8%	56	N/A	N/A	0.54	0.13	N/A					N/A	N/A
p-Dichlorobenzene	106-46-7	57%	56	0.55	0.96	6.8	1.9	0.78	0.8	O(I)	0.000011	O(C)	0.00098	8.6x10⁻⁶
o-Dichlorobenzene	95-50-1	1.8%	56	N/A	N/A	1.0	0.24	N/A	0.6	R			N/A	N/A
Dichlorodifluoromethane (F-12)	75-71-8	100%	56	3.0	2.2	15	6.9	3.5	1.5	ACGIH			0.0023	N/A
1,1-Dichloroethane	75-34-3	0%	56	N/A	N/A	0.096	0.097	N/A	0.5	O(H)	0.0000016	O(C)	N/A	N/A
1,2-Dichloroethane	107-06-2	0%	56	N/A	N/A	0.062	0.061	N/A	2.4	O(A)	0.000026	O(I)	N/A	N/A
t-1,2-Dichloroethene	156-60-5	0%	56	N/A	N/A	0.061	0.06	N/A	0.06	R			N/A	N/A
c-1,2-Dichloroethene	156-59-2	1.8%	56	N/A	N/A	1.5	0.095	N/A	0.03	R			N/A	N/A
Dichloromethane	75-09-2	77%	56	0.31	0.25	1.2	1.1	0.38	1	O(A)	4.7x10⁻⁷	O(I)	0.00038	1.8x10⁻⁷
1,2-Dichloropropane	78-87-5	0%	56	N/A	N/A	0.10	0.10	N/A	0.004	O(I)	0.000019	O(R)	N/A	N/A
c-1,3-Dichloropropene	10061-01-3	0%	56	N/A	N/A	0.19	0.19	N/A					N/A	N/A
t-1,3-Dichloropropene	10061-02-6	0%	56	N/A	N/A	0.28	0.28	N/A	0.02	L(IDEM)	0.000004		N/A	N/A
Dichloro-Tetrafluoroethane (F-114)	76-14-2	0%	56	N/A	N/A	0.12	0.12	N/A					N/A	N/A
1,4-Dioxane	123-91-1	13%	56	0.16	0.72	4.4	0.90	0.32	3.6	O(D-A)	0.0000077	O(C)	0.00009	2.5x10⁻⁶
Ethanol	64-17-5	100%	56	42	51	240	180	53	100	L(IDEM)			0.00053	N/A
Ethyl Acetate	141-78-6	38%	56	0.19	0.14	1.0	0.36	0.23	0.37	ACGIH			0.00061	N/A
Ethylbenzene	100-41-4	41%	56	0.28	0.13	0.69	0.65	0.31	1	O(I)	0.0000025	C	0.00031	7.8x10⁻⁷
p-Ethyltoluene	622-96-8	7.1%	56	0.20	0.048	0.49	0.25	0.22					N/A	N/A
Heptane	142-82-5	93%	56	0.57	0.45	2.0	1.6	0.66	0.43	ACGIH			0.0015	N/A
Hexachlorobutadiene	87-68-3	1.8%	56	N/A	N/A	4.6	0.33	N/A	0.09	O(P-C)	0.000022	O(I)	N/A	N/A
Hexane	110-54-3	96%	56	0.77	0.60	2.9	2.2	0.92	0.7	O(I)			0.0013	N/A
Isopropanol	67-63-0	91%	56	0.71	0.49	2.5	1.7	0.81	7	C			0.00012	N/A

Pollutant	CAS #	Detect Rate	Sample Size	KM Mean µg/m³	KM St. Dev. µg/m³	Max Detect µg/m³	97th Percentile µg/m³	95% KM(t) UCL µg/m³	Reference Concentration (RfC) mg/m³	Source	Inhalation Unit Risk (IUR) 1/(µg/m³)	Source	Hazard Quotient	Risk Estimate
Methyl Ethyl Ketone (MEK)	78-93-3	98%	56	2.5	2.7	15	9.4	3.2	5	I			0.00065	N/A
Methyl Isobutyl Ketone (MIBK)	108-10-1	63%	56	0.29	0.32	1.6	1.2	0.37	3	O(I)			0.00012	N/A
Methyl n-Butyl Ketone (MBK)	591-78-6	80%	56	0.45	0.45	2.7	1.3	0.57	0.057	L(I)			0.01	N/A
Methyl Tert-Butyl Ether (MTBE)	1634-04-4	0%	56	N/A	N/A	0.11	0.11	N/A	3	O(I)	2.6×10^{-7}	O(C)	N/A	N/A
Propene	115-07-1	96%	56	1.3	0.81	3.8	2.8	1.4	3	C			0.00048	N/A
Styrene	100-42-5	11%	56	0.055	0.051	0.21	0.19	0.068	1	O(I)			0.000068	N/A
1,1,2,2-Tetrachloroethane	79-34-5	0%	56	N/A	N/A	0.12	0.12	N/A			0.000058	O(I)	N/A	N/A
Tetrachloroethene (PCE)	127-18-4	5.4%	56	0.075	0.063	0.41	0.24	0.095	0.27	O(A)	0.0000059	O(C)	0.00035	5.6×10^{-7}
Tetrahydrofuran (THF)	109-99-9	23%	56	0.17	0.32	1.5	0.89	0.24	0.035	R			0.007	N/A
Toluene	108-88-3	100%	56	1.4	1.4	7.7	5.3	1.7	5	O(I)			0.00035	N/A
Trichlorotrifluoroethane (F-113)	76-13-1	98%	56	0.57	0.35	2.4	1.1	0.65					N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	1.8%	56	N/A	N/A	3.6	0.37	N/A	0.2	O(H)			N/A	N/A
1,1,1-Trichloroethane	71-55-6	1.8%	56	N/A	N/A	0.12	0.12	N/A	1	O(C)			N/A	N/A
1,1,2-Trichloroethane	79-00-5	0%	56	N/A	N/A	0.18	0.19	N/A	0.4	O(P-C)	0.000016	O(I)	N/A	N/A
Trichloroethene (TCE)	79-01-6	13%	56	0.27	0.01	0.32	0.27	0.27	0.6	O(C)	0.000002	O(C)	0.00046	5.5×10^{-7}
Trichlorofluoromethane (F-11)	75-69-4	100%	56	1.5	1.1	7.1	3.5	1.7	0.7	L(R(h))			0.0025	N/A
1,3,5-Trimethylbenzene	108-67-8	3.6%	56	N/A	N/A	0.39	0.27	N/A	0.006	L(P)			N/A	N/A
1,2,4-Trimethylbenzene	95-63-6	46%	56	0.28	0.27	1.8	0.74	0.34	0.007	L(R(p))			0.048	N/A
Vinyl Acetate	108-05-4	61%	56	2.6	3.9	24	13	3.5	0.2	O(I)			0.018	N/A
Vinyl Chloride	75-01-4	1.8%	56	N/A	N/A	0.098	0.097	N/A	0.1	O(I)	0.0000088	O(I)	N/A	N/A
Vinylidene Chloride	75-35-4	0%	56	N/A	N/A	0.11	0.11	N/A	0.2	O(I)			N/A	N/A
o-Xylene	95-47-6	61%	56	0.23	0.15	0.69	0.61	0.26	0.1	O(I)			0.0026	N/A
m+p-Xylenes	106-42-3	66%	56	0.69	0.48	2.3	1.9	0.78	0.1	O(I)			0.0078	N/A