

Toxic Compound Data Sheet**Name:** 1,1-Biphenyl**CAS Number:** 00092-52-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 1,1- Biphenyl is listed by U.S. EPA as a Hazardous Air Pollutant (HAP), and is toxic by causing pulmonary impairment.

Molecular Weight: 154.20 g/mol**Synonyms:** Biphenyl, Diphenyl, Phenyl benzene, Lemonene, Bibenzene, Biphenyl, 1,1-, Phenador-X, PPH, Xenene.**U.S. EPA Carcinogenic Classification (IRIS):** Classification -- D; not classifiable as to human carcinogenicity.**PBT:** Not Listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Listed as a Hazardous Air Pollutant (HAP) by the U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 0.2 ppm or 1261 ug/m³. Critical effects: pulmonary impairment.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Not listed as reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0013.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/biphenyl.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** 1,3-Butadiene**CAS Number:** 00106-99-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 1,3-Butadiene is specifically listed because it is a known human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 54.09 g/mol

Synonyms: Buta-1,3-diene, Biethylene, Erythrene, Divinyl, Vinylethylene, Bivinyll, Butadien, Buta-1,3-dieenv Butadien, Butadiene, Alpha,gamma-butadiene, Erythrene, Nci-c50602, Pyrrolylene

U.S. EPA Carcinogenic Classification (IRIS): 1,3-butadiene is characterized as carcinogenic to humans by inhalation; Reference Concentration for Chronic Inhalation Exposure - $RfC\ 2 \times 10^{-3}\ \text{mg}/\text{m}^3$; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - 3×10^{-5} per ug/m^3 .

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as a known human carcinogen.

HAP: Listed as a Hazardous Air Pollutant (HAP).

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV-TWA 2ppm or $4425\ \text{ug}/\text{m}^3$; A2 Suspected Human Carcinogen. Critical effect: cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2A; Listed as probably carcinogenic to humans by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/IRIS/supdocs/buta-sup.pdf>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s025buta.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/butadien.html>
4. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
5. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
6. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
7. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 9, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** 2-Acetylaminofluorene**CAS Number:** 00053-96-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 2, Acetylaminofluorene is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed by U.S. EPA as a hazardous air pollutant (HAP).

Molecular Weight: 223.26 g/mol**Synonyms:** Acetamide, N-Flouren-2-YL-, AAF,2-(Acetylamino)Fluorene**U.S. EPA Carcinogenic Classification (IRIS):**Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Listed as Reasonably Anticipated to be a Human Carcinogen.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** Not listed by ACGIH.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Not listed as an Agent Reviewed by IARC.**ATSDR, MRL:** None Available.

Reference Material.

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s002acet.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acetylam.html>
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>

Completed by: 4, 2, 3, 1

Date 8/17/06, 8/22/06, 8/28/06, 9/10/06

Toxic Compound Data Sheet

Name: 2, Aminopyridine

CAS Number: 00504-29-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 2, Aminopyridine is specifically listed because it has the potential to cause headaches, dizziness, nausea and central nervous system impairment.

Molecular Weight: 91.11 g/mol

Synonyms: Alpha-Aminopyridine, 2-Pyridylamine

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

HEAST: Not listed in Health Effects Assessment Summary Tables.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 0.5 ppm or 1863 ug/m³; causes headaches, dizziness, nausea, and central nervous system impairment.

HSDB: Listed in HSDB database; exposure may cause headaches, dizziness, nausea, elevated blood pressure.

International IARC: Not listed as having been an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material.

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date 8/16/06, 8/17/06, 9/9/06

Toxic Compound Data Sheet**Name:** 2-Chloroacetophenone**CAS Number:** 00532-27-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 2-Chloroacetophenone is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 154.59 g/mol

Synonyms: 1-chloroacetophenone; 2-chloro-1-phenylethanone; 2-chloroacetophenone; Acetophenone, 2-chloro-; Alpha-chloroacetophenone; Caf; Caswell No. 179c; Chloracetophenone; Chloroacetophenone; Chloromethyl Phenyl Ketone; Cloroacetofenona; Cn; Epa Pesticide Chemical Code 018001; Ethanone, 2-chloro-1-phenyl-; Ethanone, 2-chloro-1-phenyl-; Hsdb 972; Mace; Nci-c55107; Nsc 41666; Omega-chloroacetophenone; Phenacyl Chloride; Phenyl Chloromethyl Ketone; Phenylchloromethylketone; UN 1697

U.S. EPA Carcinogenic Classification (IRIS): Agent Has Not Undergone a Complete Evaluation.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 0.05 ppm or 316 ug/m³; Critical effect: shin, eye and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Causes eye, skin and respiratory irritation.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0537.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlo-phe.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** 4-Aminodiphenyl**CAS Number:** 00092-67-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 4-Aminodiphenyl is specifically listed because it is a known human carcinogen, as is listed by U.S. EPA as a HAP.

Molecular Weight: 169.23 g/mol**Synonyms:** 4-Aminobiphenyl, p-Aminodiphenyl, p-Xenylamine**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Listed in Part A as Known Human Carcinogen.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA lowest; A1- Confirmed Human Carcinogen; Critical Effects: bladder & liver cancer.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 1; Carcinogenic to Humans.**ATSDR, MRL:** Not Available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s010amin.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook,
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/aminobip.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol1/volume1.pdf>
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4,2,1

Date 8/16/06, 8/18/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acetaldehyde**CAS Number:** 00075-07-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acetaldehyde is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed by U.S. EPA as a HAP.

Molecular Weight: 44.05 g/mol

Synonyms: Ethanal,acetaldehyd, Acetaldehyde, Acetic Aldehyde, Acetylaldehyde, Aldehyde Acetique, Aldeide Acetica, Ethanal, Ethyl Aldehyde, Nci-c56326, Octowy Aldehyd, Rcra Waste Number U001, Un 1089

U.S. EPA Carcinogenic Classification (IRIS): 2B, Probable Human Carcinogen; Reference Concentration for Chronic Inhalation Exposure - 9×10^{-3} mg/m³; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 2.2×10^{-6} per ug/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Listed as Reasonably Anticipated to be a Human Carcinogen.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: Ceiling 25 ppm or 45000 ug/m³; Confirmed Animal Carcinogen; Critical Effects: eye and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2B; Possibly Carcinogenic to humans.

ATSDR, MRL: None Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0290.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acetalde.html>
4. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
5. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
6. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
7. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>

Completed by: 4,2, 3,1

Date: 8/16/06, 08/18/06, 08/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acetamide**CAS Number:** 00060-35-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acetamide is specifically listed because it is possibly carcinogenic to humans, and is listed by U.S. EPA as a HAP.

Molecular Weight: 59.07 g/mol**Synonyms:** Acetic Acid Amide, Ethanamide**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not Listed by the National Toxicology Program.**HAP:** Listed by U.S. EPA as a Hazardous Air Pollutant.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** Not listed by ACGIH.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 2B; Possibly carcinogenic to humans.**ATSDR, MRL:** None available.

Reference Material.

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef//acetamid.html>
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>

Completed by: 4,2,3,1

Date 8/16/06, 08/18/06, 08/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acetonitrile**CAS Number:** 00075-05-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acetonitrile is specifically listed because it is acutely or chronically toxic, causing hypotension, elevated blood cyanide, respiratory effects, and is listed by U.S. EPA as a HAP.

Molecular Weight: 41.05 g/mol

Synonyms: Ethanenitrile, Methyl Cyanide, Cyanomethane, Cyanure De Methyl, Ethyl Nitrile, Methanecarbonitrile, Methane, Cyano-, Na 1648, Nci-c60822, Rcra Waste Number U003, Un 1648, Usaf Ek-488 Acetonitril; Acetonitrile; Cyanomethane; Cyanure de methyl

U.S. EPA Carcinogenic Classification (IRIS): Classified as D - Not classifiable as to human carcinogenicity; Reference Concentration for Chronic Inhalation Exposure - 6×10^{-2} mg/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by National Toxicology Program.

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA, 20 ppm or 33,579 ug/m³; Critical Effects: Respiratory irritation.

HSDB: Hypotension, elevated blood cyanide, respiratory arrest.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Listed.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0205
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acetoneit.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4,2,1

Date: 8/16/06, 08/22/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acetophenone**CAS Number:** 00098-86-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acetophenone is specifically listed because it is acutely or chronically toxic, causing decreases in hemoglobin and eye irritation, and is listed by U.S. EPA as a Hazardous Air Pollutant.

Molecular Weight: 120.15 g/mol**Synonyms:** Phenyl methyl ketone, Acetophenone, acetyl benzene, hypnone, phenyl methyl acetone**U.S. EPA Carcinogenic Classification (IRIS):** D; not classifiable as to human Carcinogenicity; Reference Concentration for Chronic Inhalation Exposure Not Assessed under the IRIS Program.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r in the Clean Air Act.**ACGIH:** TLV-TWA, 10 ppm or 49,141 ug/m³, Critical effects: eye irritation, ocular sensitivity.**HSDB:** Decrease in hemoglobin, eye irritation.**International IARC:** Not listed as an Agents Reviewed by IARC.**ATSDR, MRL:** Not Available.

Reference Material.

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acetophe.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4,2,1

Date 8/16/06, 8/18/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acetylene Tetrabromide**CAS Number:** 00079-27-6

Justification: **Justification:** This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acetylene Tetrabromide is specifically listed because it is acutely or chronically toxic, causing respiratory irritation and central nervous system effects.

Molecular Weight: 345.7 g/mol**Synonyms:** Muthmann's liquid; Tetrabromoethane; 1,1,2,2- Tetrabromoethane**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA, 1ppm or 14,139 ug/m³; eye, nose and throat irritation.**HSDB:** Listed in the Hazardous Substances Data Bank as causing central nervous system effects.**International IARC:** Not listed as an Agent Reviewed by IARC.**ATSDR, MRL:** Not Available.

Reference Material.

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/16/06, 8/18/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acrolein**CAS Number:** 00107-02-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acrolein is specifically listed because it is acutely or chronically toxic, causing eye and respiratory irritation, and is listed by U.S. EPA as a Hazardous Air Pollutant.

Molecular Weight: 56.06 g/mol

Synonyms: Acraldehyde, Acrylic Aldehyde, Allyl Aldehyde, Ethylene Aldehyde, propenal, acrylaldehyde, propenal, prop-2-en-1-al, 2-propenal

U.S. EPA Carcinogenic Classification (IRIS): No data available for weight of evidence for carcinogenicity; Reference Concentration for Chronic Inhalation Exposure - 2×10^{-5} mg/m³.

PBT: Not listed by U.S. EPA as a PBT.

NTP: Not listed by National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 5,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV- Ceiling 0.1 ppm or 229 ug/m³; critical effects: eye and respiratory irritation.; pulmonary edema; pulmonary emphysema.

HSDB: Listed in the Hazardous Substances data Bank as causing eye and respiratory irritation.

International IARC: Group 3; Not classifiable as to carcinogenicity to humans.

ATSDR, MRL: Inhalation, Intermediate: 0.09171 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/iris/toxreviews/0364-tr.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acrolein.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol63/volume63.pdf>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp124.html>
6. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
7. U.S. EPA 2001. List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 4, 2, 1

Date: 8/16/06, 8/19/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acrylamide**CAS Number:** 00079-06-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acrylamide is specifically listed because it is a probable human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 71.08 g/mol

Synonyms: 2-Propenamide, Acrylic amide, Acrylamide, Akrylamid, amid Kyseliny Akrylove, Ethylenecarboxamide, Propenamide, Rcra Waste Number U007, Un 2074

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 1.3×10^{-3} per ug/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Listed in Part B as Reasonably anticipated to be a Human Carcinogen.

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA 0.03 mg/m³; A3- Confirmed Animal Carcinogen with Unknown Relevance to Humans; Critical Effects: Central Nervous System impairment.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2A; Probably carcinogenic to humans.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acrylami.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>
6. U.S. Department of Health and Human Services. *11th Report on Carcinogens.*
National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>

Completed by: 4,2,3,1

Date: 8/16/06, 8/19/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acrylic Acid**CAS Number:** 00079-10-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acrylic acid is specifically listed because it is acutely or chronically toxic, causing respiratory irritation and corrosive to skin and eyes, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 72.06 g/mol

Synonyms: Acroleic acid, Ethylenecarboxylic acid, Propene acid, Propenoic acid, Vinylformic acid, Acrylic Acid, Acrylic acid, glacial, 2-Propenoic acid, RCRA waste number U008, UN 2218

U.S. EPA Carcinogenic Classification (IRIS): No Classification Available; Reference Concentration for Chronic Inhalation Exposure - 1×10^{-3} mg/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA, 2 ppm or 5894 ug/m³; Critical Effects: respiratory irritation.

HSDB: Corrosive to skin and eyes.

International IARC: Group 3; Not classifiable as to carcinogenicity to humans.

ATSDR, MRL: Not Available.

Reference Material.

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acrylica.html>
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol19/volume19.pdf>
5. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>

Completed by: 4, 2, 3, 1

Date 8/21/06, 8/22/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Acrylonitrile**CAS Number:** 00107-13-1**Molecular Weight:** 53.05 g/mol

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Acrylonitrile is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Synonyms: 2-propenenitrile, Propenenitrile, Vinyl cyanide, Acritet, Acrylnitril, Acrylon, Acrylonitrile, Acrylonitrile Monomer, Akrylonitryl, Carbacryl, Cianuro Di Vinile, Cyanoethylene, Cyanure De Vinyle, Ent 54, Fumigrain, Miller's Fumigrain, Nitrile Acrilico, Nitrile Acrylique, Rcra Waste Number U009, TI 314, Un 1093, Vcn, Ventox

U.S. EPA Carcinogenic Classification (IRIS): B1; probable human carcinogen; Reference Concentration for Chronic Inhalation Exposure - 2×10^{-3} mg/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Listed in Part B as Reasonably Anticipated to be a Human Carcinogen.

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant.

112r: Threshold quantity (TQ) listed as 20,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV- TWA 2ppm or 4339 ug/m³; A3- Confirmed Animal Carcinogen with Unknown Relevance to Humans; Critical Effects: Central Nervous System impair; respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2B; Possibly carcinogenic to humans.

ATSDR, MRL: Inhalation, Acute: 216.97 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s004acry.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/acryloni.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp125.html>
8. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 4, 2, 3, 1

Date: 8/16/06, 8/19/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Aldrin**CAS Number:** 00309-00-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Aldrin is specifically listed because it is a persistent, bioaccumulative toxic compound (PBT), as listed by U.S. EPA, and is a probable human carcinogen.

Molecular Weight: 364.93 g/mol

Synonyms: 1,2,3,4,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-dimethanonaphthalene, Aldrex, Aldrin, Aldrite, Aldrosol, 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a- Hexahydro, (1 alpha, 4 alpha, 4a beta, 5 alpha, 8 alpha, 8a beta)-- Drinox ENT 15,949 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-Hexahydro-1,4,5,8-Dimethanonaphthalene 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-Hexahydro-1,4-endo-exo-5,8- Dimethanonaphthalene 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-Hexahydro-exo-1,4-endo-5,8- Dimethanonaphthalene Hexachlorohexahydro-endo-exo-Dimethanonaphthalene HHDN NCI-C00044 Octalene Seedrin

U.S. EPA Carcinogenic Classification (IRIS):B2; probable human carcinogen; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 4.9×10^{-3} per ug/m³.

PBT: Threshold; 100lbs.for Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA 250 ug/m³; A3- Confirmed Animal Carcinogen; Critical Effects: Liver damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 3; Not classifiable as to carcinogenicity to humans.

ATSDR, MRL: Oral, Chronic: 0.00003 mg/kg/day.

Reference Material.

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/cheminfo.htm>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 2, 3, 1

Date: 8/17/06, 8/19/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Allyl Chloride**CAS Number:** 00107-05-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Allyl Chloride is specifically listed because it is neurotoxic, is a possible human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 76.50 g/mol

Synonyms: 3-Chloropropene, 3-chloroprene, Chlorallylene, 1-chloro-2-propene, 3-chloropropene-1, 1-chloro Propene-2, 3-chloropropene, 3-chloro-1-propene, 3-chloropropylene, Alpha-chloropropylene, 3-chloropropen, Chlorure D'allyle, Cloruro De Alilo, Hsdb 178, Nci-c04615, Nsc 20939, 1-propene, 3-chloro-, Propene, 3-chloro-, 2-propenyl Chloride, Un 1100

U.S. EPA Carcinogenic Classification (IRIS): C; possible human carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA 1ppm or 3129 ug/m³; STEL 2 ppm or 6 mg/m³; A3- Confirmed Animal Carcinogen; critical effects: eye and respiratory irritation; liver and kidney damage.

HSDB: Listed in the Hazardous Substances Data Bank.**International IARC:** Group 3; Not Classifiable as carcinogenic to humans.**ATSDR, MRL:** Not Available.

Reference Material.

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/allylchl.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol36/volume36.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 4, 2, 3, 1

Date: 8/17/06, 8/18/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet

Name: Allylamine

CAS Number: 00107-11-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Allylamine is specifically listed because it is acutely or chronically toxic, causing eye and respiratory irritation.

Molecular Weight: 57.09 g/mol

Synonyms: 3-Amino-1-propene

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Bank causing eye and respiratory irritation.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available

Reference Material.

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 4, 2, 1

Date: 8/17/06, 08/19/06, 9/9/06

Toxic Compound Data Sheet

Name: Aluminum & Compounds, as Al; Metal dust; Pyro powders; Soluble salts; Alkyls (NOS)

CAS Number: 07429-90-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Aluminum & compounds are specifically listed because they are carcinogenic to humans and they are acutely or chronically toxic, causing central nervous system effects and respiratory irritation.

Molecular Weight: 26.98 g/mol

Synonyms: None

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV- TWA 10000 ug/m³- metal dust as Al; respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 1; Carcinogenic to Humans.

ATSDR, MRL: Oral, Intermediate; 2 mg/kg/day.

Reference Material.

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006 *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 2, 1

Date: 8/17/06, 8/19/06, 9/9/06

Toxic Compound Data Sheet

Name: Aluminum Oxide

CAS Number: 01344-28-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Aluminum oxide is specifically listed because it is carcinogenic to humans and it is acutely or chronically toxic, causing respiratory irritation and pneumoconiosis.

Molecular Weight: 101.96 g/mol

Synonyms: Alumina, Aluminium (III) Oxide, Corundum

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Listed in Section 112r of the Clean Air Act with a threshold of 10,000 RPM.

ACGIH: TLV- TWA 10000 ug/m³; respiratory irritation and pneumoconiosis.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 1; Carcinogenic to Humans.

ATSDR, MRL: Not Available.

Reference Material.

1. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>

Completed by: 4, 2, 3,1

Date: 8/17/06, 8/19/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Amitrole**CAS Number:** 00061-82-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Amitrole is specifically listed because it is a possible human carcinogen, and a confirmed animal carcinogen.

Molecular Weight: 84.08 g/mol**Synonyms:** None**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Listed in Part B as Reasonably Anticipated to be a Human Carcinogen.**HAP:** Not listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 200 ug/m³; A3- Confirmed Animal Carcinogen.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 3; Not Classifiable as Carcinogenic to Humans**ATSDR, MRL:** Not Available.

Reference Material.

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/17/06, 8/18/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ammonia (Anhydrous)**CAS Number:** 07664-41-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ammonia is specifically listed because it is acutely or chronically toxic, causing eye and respiratory irritation.

Molecular Weight: 17.03 g/mol

Synonyms: Hydrogen nitride, Spirit of hartshorn, Nitrosil, Vaporole, Ammonia, AM-FOL, Ammonia Gas, Ammonia Solution, Strong, Ammoniac, Ammoniaca, Ammoniak, Amoniaco, Amoniak, Anhydrous Ammonia, Aromatic Ammonia, Vaporole, Caswell No. 041, EPA Pesticide Chemical Code 005302, HSDB 162, Nitro-Sil, R 717, UN 1005, UN 2073, UN 2672

U.S. EPA Carcinogenic Classification (IRIS): Not Listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed by U.S. EPA as a Hazardous Air Pollutant.**112r:** Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 25ppm or 17413 ug/m³; STEL 35 ppm or 24 mg/m³; Critical Effects: eye damage and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank, causing irritation of eyes and respiratory tract; conjunctivitis, laryngitis, & pulmonary edema or pneumonitis.**International IARC:** Not listed as having been reviewed by IARC.**ATSDR, MRL:** Inhalation, Chronic; 69.65 ug/m³.

Reference Material.

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>
4. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 4, 2, 1

Date: 8/17/06, 8/19/06, 9/9/06

Toxic Compound Data Sheet

Name: Ammonium perfluorooctanoate, Perfluorooctanoic Acid and its Salts (PFOA)

CAS Number: 3825-26-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ammonium perfluorooctanoate is specifically listed because it is a possible human carcinogen and it is acutely or chronically toxic, causing liver damage.

Molecular Weight (g/mol): 431.00

Synonyms: Ammonium pentadecafluorooctanoate, Octanoic acid, pentadecafluoro-, ammonium salt (systemic names); Ammonium perfluorocaprylate, Ammonium perfluorocaprylate, Fluorad FC 143, Pentadecafluoro-1-octanoic ammonium salt, Perfluoroammonium octanoate, Perfluorooctanoic acid ammonium salt (synonyms); C8, C-8, APFO (common names)

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS database.

PBT: Not listed as Persistent, Bioaccumulative, and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 10 µg/m³. Confirmed animal carcinogen; causes liver damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed by IARC.

ATSDR (MRL): No minimum risk level (MRL) available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/17/06, 8/19/06, 9/9/06

Toxic Compound Data Sheet**Name:** Aniline**CAS Number:** 00062-53-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Aniline is specifically listed because it is neurotoxic, a probable human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 93.13**Synonyms:** Aminobenzene, Aminophen, Aniline-oil, Kyanol, Phenylamine**U.S. EPA Carcinogenic Classification (IRIS):** Inhalation RfC is 1 $\mu\text{g}/\text{m}^3$. Classified as B2 Probable Human Carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative, and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by the U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 2 ppm or 7,618 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen. Critical effect: anoxia and methemoglobinemia.**HSDB:** Listed in the Hazardous Substances Data Bank, causing headache, nausea and central nervous system effects.**International IARC:** Not classifiable as carcinogenic to humans (Group 3).**ATSDR (MRL):** No minimum risk level (MRL) available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0350
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook,
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/aniline.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol27/volume27.pdf>
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date 8/16/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** *ortho*-Anisidine,**CAS Number:** 00090-04-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. *ortho*-Anisidine is specifically listed because it is a possible human carcinogen, is acutely or chronically toxic, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 123.15

Synonyms: Benzenamine, 2-methoxy; 2-Anisidine; AI3-08584; CCRIS 768; o-Aminoanisole; o-Anisidine; o-Methoxyphenylamine; 1-Amino-2-methoxybenzene; 2-Aminoanisole; 2-Methoxy-1-aminobenzene; 2-Methoxyaniline; HSDB 2073; o-Methoxyaniline; 2-Methoxybenzenamine; Anisidine

U.S. EPA Carcinogenic Classification (IRIS): Listed on U.S. EPA Integrated Risk Information System (IRIS) database.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed by U.S. EPA as a HAP.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Confirmed animal carcinogen. Critical effect: anoxia.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): No minimum risk level (MRL) available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0610
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/methoxya.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>

Completed by: 4, 2, 3, 1

Date 8/16/06, 8/20/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Anisidine, *para*-**CAS Number:** 00104-94-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. *para*- Anisidine is specifically listed because it is acutely and chronically toxic, causing headache, anoxia and skin irritation.

Molecular Weight (g/mol): 123.15

Synonyms: 1-Amino-4-methoxybenzene, 1-Methoxy-4-amino-benzen (p-anisidin), 1-Methoxy-4-amino-benzene / p-anisidine, 10008622, 20265-97-8, 4-Aminoanisole, 4-Anisidine, 4-Methoxy-1-aminobenzene, 4-Methoxy-aniline, 4-Methoxyaniline, 4-Methoxybenzenamine, 4-Methoxybenzeneamine, A13-02392, AIDS-019933, Aniline, 4-methoxy-, p-methoxy-, Anisole, p-amino-, benzenamine, 4-methoxy-, Benzenamine, beta-Anisidine, CCRIS 917, EINECS 203-254-2, HSDB 1603, NISTC 104949, NSC 7921, p-Anisidine, p-Anisylamine, p-Dianisidine, p-Methoxyaniline, p-Methoxyphenylamine, ZINC00157523

U.S. EPA Carcinogenic Classification (IRIS): Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.

PBT: Not listed on U.S. EPA PBT Chemical Program list.

NTP: Not listed on NTP list.

HAP: Not listed by the U.S. EPA as a HAP.

112r: Not listed under Section 112(r) of the Clean Air Act.

HSDB: Listed in the Hazardous Substances Data Bank; causes headaches and skin irritation.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Not classifiable as a human carcinogen (A4). Critical effect: anoxia.

International IARC: Not classifiable as carcinogenic to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date 8/16/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** Antimony compounds, as Sb**CAS Number:** 07440-36-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Antimony compounds are specifically listed because they are acutely or chronically toxic, causing respiratory and skin irritation, and are listed by U.S. EPA as a Hazardous Air Pollutants (HAPs).

Molecular Weight (g/mol): 121.75

Synonyms: Antimony black; Antimony powder; Antimony, regulus; Antymon; C.I. 77050; Stibium; UN 2871

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.

PBT: Not listed on U.S. PBT Chemical Program list.

NTP: Not listed by the National Toxicology Program.

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Critical effect :lung irritation.

HSDB: Listed in the Hazardous Substances Data Bank; causes respiratory and skin irritation.

International IARC: Not listed in IARC database .

ATSDR (MRL): No minimum risk level (MRL).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0006
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook,
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/antimony.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date 8/16/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** Antimony hydride**CAS Number:** 07803-52-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Antimony hydride is specifically listed because it is neurotoxic, and is acutely or chronically toxic, causing hemolysis, kidney damage, and respiratory effects.

Molecular Weight (g/mol): 124.78**Synonyms:** Stibine, Antimony trihydride, Hydrogen antimonide**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in U.S. EPA IRIS database.**PBT:** Not listed on U.S. EPA PBT Chemical Program list.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a Hazardous Air Pollutant by the U.S. EPA..**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.1 ppm or 510 $\mu\text{g}/\text{m}^3$. Critical effect: hemolysis, kidney damage and respiratory effects.**International IARC:** Not listed in IARC database.**HSDB:** Attacks the blood, headache, nausea and CNS effects.**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.

Completed by: 4, 2, 1

Date 8/16/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** Antimony trioxide**CAS Number:** 01309-64-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Antimony trioxide is specifically listed because it is possibly carcinogenic to humans and it is acutely or chronically toxic, causing respiratory effects.

Molecular Weight (g/mol): 291.52

Synonyms: Antimony oxide, Diantimony trioxide, A 1530, A 1582, A 1588LP, Amspec-KR, Antimonious oxide, Antimony peroxide, Antimony sesquioxide, Antimony white, Antimony(3+) oxide, Antox, Anzon-TMS, AP 50, Blue Star, C.I. Pigment White 11, C.I. 77052, Chemetron Fire Shield, CI Pigment White 11, CI 77052, Dechlorane A-O, Exitelite, Extrema, Flowers of Antimony, HSDB 436, NCI-C55152, Nyacol A 1510LP, Nyacol A 1530, Senarmontite, Thermoguard B, Thermoguard S, Timonox, Twinkling Star, Valentinite, Weisspiessglanz [German], White Star

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 0.2 µg/m³.**PBT:** Not listed on U.S. EPA PBT Chemical Program list.**NTP:** Not listed by U.S. EPA on the NTP list.**HAP:** Not listed by U.S. EPA as a HAP.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: lowest specified. Suspected human carcinogen (A2). Critical effects: lung cancer and pneumoconiosis.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Possibly carcinogenic to humans (2B).

ATSDR (MRL): No minimum risk level (MRL) available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0676.htm#carc>
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>

Completed by: 4, 2,1

Date 8/16/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** Arsenic compounds, as As**CAS Number:** 07440-38-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Arsenic is specifically listed because it is known to be carcinogenic to humans, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 74.92**Synonyms:** Gray-arsenic; Arsenic, inorganic

U.S. EPA Carcinogenic Classification (IRIS): Classified as Class A human carcinogen with inhalation unit risk factor of $4.3E-3 \mu\text{g}/\text{m}^3$.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Known to be human carcinogen (Part A).

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: $0.01 \text{ mg}/\text{m}^3$ or $10 \mu\text{g}/\text{m}^3$. Confirmed human carcinogen (A1). Critical effects: lung cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Carcinogenic to humans (Group 1).

ATSDR (MRL): $0.0003 \text{ mg}/\text{kg}/\text{day}$ oral route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0278
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s015arse.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/arsenic.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol23/volume23.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>
7. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/21/06, 8/22/06, 9/9/06

Toxic Compound Data Sheet**Name:** Arsine**CAS Number:** 07784-42-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Arsine is specifically listed because it is acutely or chronically toxic, causing blood system and kidney damage.

Molecular Weight (g/mol): 77.95

Synonyms: UN2188, Agent SA, Arsenic hydride, Arsenic hydride (AsH₃), Arsenic trihydride, Arseniuretted hydrogen, Arsenous hydride, Arsenowodor [Polish], Arsenwasserstoff [German], Arsina [Spanish], HSDB 510, Hydrogen arsenide

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 0.05 µg/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 1,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: 0.05 ppm or 159 µg/m³. Critical effects: blood, kidney damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed in IARC database.

ATSDR (MRL): No minimum risk level (MRL) available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0672
<http://www.epa.gov/iris/subst/0672.htm#carc>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.pg (51-91)
[http://yosemite.epa.gov/oswer/ceppoweb.nsf/vwResourcesByFilename/title3.pdf/\\$file/title3.pdf](http://yosemite.epa.gov/oswer/ceppoweb.nsf/vwResourcesByFilename/title3.pdf/$file/title3.pdf)
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 3, 1

Date 8/21/06, 8/22/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Atrazine**CAS Number:** 01912-24-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Atrazine is specifically listed because it is acutely or chronically toxic, causing central nervous system convulsions; skin, eyes and respiratory irritation.

Molecular Weight (g/mol): 215.69

Synonyms: A 361, Aatrex, Aatrex 4I, Aatrex 80W, Aatrex Nine-O, 2-aethylamino-4-chlor-6-isopropylamino-1,3,5-triazin, 2-Aethylamino-4-isopropylamino-6-chlor-1,3,5-triazin, Aktikon, Aktinit A, Aktinit PK, Atazinax, Atrasine, Atrazin, Candex, 2-Chloro-4-ethylamineisopropylamine-s-triazine, 1-Chloro-3-ethylamino-5-isopropylamino-2,4,6-triazine, 2-Chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine, 2-Chloro-4-ethylamino-6-isopropylamino-s-triazine, 6-Chloro-n-ethyl-n'-(1-methylethyl)-1,3,5-triazine-2,4-diamine 2-Chloro-4-(2-propylamino)-6-ethylamino-s-triazine, Crisatrina, Crisazine, Cyazin, Farmco Atrazine, Fenamin, Fenamine, G 30027, Gesaprim, Gesoprim, Hungazin, Inakor, Oleogesaprim, Primatol A, Primaze, Radizine, Triazine a 1294, 1,3,5-Triazine-2,4-diamine, 6-chloro-n-ethyl-n'-(1-methylethyl)-, Vectal, Vectal SC, Weedex A, Wonuk, Zeazin, Zeazine, Aktikon PK, Argezin, Atranex, Atratol A, Atred, Atrex, Cekuzina-T, 1-Chloro-3-ethylamino-5-isopropylamino-s-triazine, Fenatrol, Geigy 30,027, Griffex, Hungazin PK, Primatol, Radazin, Strazine, s-Triazine, 2-chloro-4-ethylamino-6-isopropylamino-

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a Hazardous Air pollutant by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 mg/m³ or 5,000 µg/m³. Critical effect: Central nervous system convulsions; respiratory and eye irritation.

HSDB: Listed in the Hazardous Substances Data Bank; exposure causes fatigue, dizziness, nausea, irritation of the skin, eyes and respiratory tract, allergic eczema, or asthma.

International IARC: Not classifiable as carcinogenic to humans (Group 3).

ATSDR (MRL): 0.003 mg/kg/day oral route intermediate exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0209
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 2, 1

Date 8/21/06, 8/22/06, 9/9/06

Toxic Compound Data Sheet**Name:** Azinphos-methyl**CAS Number:** 00086-50-0**Molecular Weight (g/mol):** 317.34

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Azinphos-methyl is specifically listed because it is acutely or chronically toxic, acting as a cholinesterase inhibitor.

Synonyms: Guthion; Phosphorodithioic acid; O,O-dimethyl ester; S-ester with 3-(mercaptomethyl)-1,2,3-benzotriazin-4(3H)-one;Gusathion

U.S. EPA Carcinogenic Classification (IRIS): Not listed in U.S. EPA IRIS database.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA..

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.2 mg/m³ or 200 µg/m³. Critical effect: cholinergic.

HSDB: Listed in the Hazardous Substances Data Bank, as a cholinesterase inhibitor.

International IARC: Not listed in IARC database.

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.

Completed by: 4, 2, 1

Date: 8/21/06, 8/22/06, 9/9/06

Toxic Compound Data Sheet**Name:** Barium and compounds, as Ba**CAS Number:** 07440-39-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Barium is specifically listed because it is acutely or chronically toxic, causing eye, skin, gastro-intestinal tract, and respiratory irritation.

Molecular Weight (g/mol): 137.30**Synonyms:** UN 1399, UN 1400, UN 1854

U.S. EPA Carcinogenic Classification (IRIS): Not classifiable as to human carcinogenicity (D). Inhalation RfC not assessed; oral RfD available.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Critical effects: eye, skin irritation, GI, muscular stimulation.

HSDB: Listed in the Hazardous Substances Data Bank. This compound is associated with eye irritation, skin irritation, gastro-intestinal tract irritation, and muscular stimulation.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 0.6 mg/kg/day oral route chronic exposure.

Reference Material.

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0010
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 7, 2, 1

Date: 8/21/06, 8/23/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Benzene**CAS Number:** 00071-43-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Benzene is specifically listed because it is a known human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 78.11 g/mol**Synonyms:** Benzol, Coal naphtha, Cyclohexatriene, Phenyl hydride, Phene, Polystream, Pyrobenzol

U.S. EPA Carcinogenic Classification (IRIS): A, Benzene is classified as a "known" human carcinogen; Reference Concentration for Chronic Inhalation Exposure - 3×10^{-2} mg/m³; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 2.2×10^{-6} per ug/m³¹ : Air Unit Risk 7.8×10^{-6} per ug/m³¹.

PBT: Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as a known human carcinogen.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 0.5 ppm or 1597 ug/m³; STEL 2.5 ppm or 8 mg/m³; confirmed human carcinogen. Critical effects: leukemia.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 1; Carcinogenic to humans.**ATSDR, MRL:** Inhalation, chronic; 9.584 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0276.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s019benz.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/benzene.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol29/volume29.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 7, 2, 1

Date: 8/21/06, 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Benzidine (& dyes metabolized to benzidine)**CAS Number:** 00092-87-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Benzidine is specifically listed because it is a known human carcinogen.

Molecular Weight: 184.23 g/mol

Synonyms: 4,4'-Diaminobiphenyl, 4,4'-Bianiline, 4,4'-Biphenyldiamine, 4,4'-Diphenylenediamine; Benzidin; Benzydyna; P,p'-bianiline; (1,1'-biphenyl)-4,4'-diamine; Biphenyl, 4,4'-diamino-; C.i. 37225; C.i. Azoic Diazo Component 112; 4,4'-diaminobiphenyl; 4,4'-diamino-1,1'-biphenyl; P,p'-diaminobiphenyl; 4,4'-diaminodiphenyl; P-diaminodiphenyl; P,p'-dianiline; 4,4'-diphenylenediamine; Fast Corinth Base B; Nci-c03361; Rcra Waste Number U021; UN 1885

U.S. EPA Carcinogenic Classification (IRIS): A; human carcinogen; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - 6.7×10^{-2} per $\mu\text{g}/\text{m}^3$.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as a known human carcinogen.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA lowest; A1- Confirmed human carcinogen. Critical effect: bladder cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 1; carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0135.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s020benz.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/benzidin.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol29/volume29.pdf>

Completed by: 4, 7,2

Date: 8/21/2006, 8/24/06, 8/27/06

Toxic Compound Data Sheet**Name:** Benzotrichloride**CAS Number:** 00098-07-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Benzotrichloride is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 195.50 g/mol

Synonyms: Benzenylchloride, Benzenyl trichloride, Benzoic trichloride, Benzyl, trichloride, Phenylchloroform, Phenyltrichloromethane, Toluene trichloride, Trichloromethylbenzene, Trichloromethylbenzol, Trichlorotoluene; Benzene, (Trichloromethyl)-; Benzotrichloride; Benzotricloruro; Benzylidyne Chloride; Chlorure De Benzenyle; Chlorure De Benzylidyne; Hsdb 2076; Omega,omega,omega-trichlorotoluene; Phenyl Chloroform; Rcra Waste Number U023; Toluene Trichloride; Toluene, Alpha,alpha,alpha-trichloro-; Trichloormethylbenzeen; Trichlormethylbenzol; Trichloromethylbenzene; (Trichloromethyl)benzene; 1-(Trichloromethyl)benzene; Trichlorophenylmethane; Alpha,alpha,alpha-trichlorotoluene; Triclorometilbenzene ; UN 2226

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; carcinogenic risk from oral exposure.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as reasonably anticipated to be a human carcinogen.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-Ceiling 0.1 ppm or 800 ug/m³; A2- suspected human carcinogen. Critical effects: skin, eye, and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0388.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s021benz.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/benzo-ri.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 4, 2, 1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Benzoyl chloride**CAS Number:** 00098-88-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Benzoyl chloride is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation.

Molecular Weight: 140.57 g/mol**Synonyms:** Benzene Carbonyl Chloride; Benzoic Acid, Chloride; alph-Chlorobenzaldehyde**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- Ceiling 0.5 ppm or 2875 ug/m³; critical effects: eye, skin and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is highly irritating to eyes, skin and respiratory tract.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/23/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Benzyl Chloride**CAS Number:** 00100-44-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition, is acutely or chronically toxic, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 126.58 g/mol

Synonyms: alpha-Chlorotoluene, Chloromethylbenzene; Benzene, (Chloromethyl)-; Benzile (Cloruro Di); Benzyl Chloride; Benzyle (Chlorure De); Benzylchlorid; Chloromethylbenzene; Chlorophenylmethane; Alpha-chlorotoluene; Omega-chlorotoluene; Alpha-chlortoluol; Chlorure De Benzyle; Nci-c06360; Rcra Waste Number P028; Toluene, Alpha-chloro-; Toly Chloride; Un 1738

U.S. EPA Carcinogenic Classification (IRIS):B2; probable human carcinogen; carcinogenic risk from oral exposure.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 1 ppm or 5177 ug/m³; A3- Confirmed Animal Carcinogen with Unknown Relevance to Humans. Critical effects: A3- eye, skin, and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttnatw01/hlthef/hapindex.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 1

Date: 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Beryllium Compounds, as Be**CAS Number:** 07440-41-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Beryllium compounds are specifically listed because they are known to be human carcinogens, and are listed by U.S. EPA as Hazardous Air Pollutants (HAPs).

Molecular Weight: 9.01 g/mol**Synonyms:** Beryllium; Beryllium-9; Glucinum; RCRA waste number P015; UN 1567

U.S. EPA Carcinogenic Classification (IRIS): B1; probable human carcinogen; Reference Concentration for Chronic Inhalation Exposure - 2×10^{-5} mg/m³; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 2.4×10^{-3} per ug/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as a known human carcinogen.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 2 ug/m³; STEL 0.01 mg/m³; A1-Confirmed Human Carcinogen. Critical effect: berylliosis.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Carcinogenic to humans (Group 1).**ATSDR, MRL:** Oral; chronic, 0.002 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0012.htm>
<http://www.epa.gov/iris/toxreviews/0012-tr.pdf>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s022bery.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/berylliu.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>
7. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol16/volume16.pdf>

Completed by: 4, 2, 1

Date: 8/23/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Bis (chloromethyl)ether (BCME)**CAS Number:** 00542-88-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Bis (chloromethyl)ether is specifically listed because it is a known human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 114.97 g/mol

Synonyms: Bis(chloromethyl)ether; Bis-cme; Chloro(chloromethoxy)methane; Chloromethyl Ether; Dichlordimethylaether; 1,1'-dichlorodimethyl Ether; Sym-dichlorodimethyl Ether; Sym-dichloromethyl Ether; Dimethyl-1,1'-dichloroether; Ether, Bis(chloromethyl); Methane, Oxybis(chloro-; Oxybis(chloromethane); Rcra Waste Number P016

U.S. EPA Carcinogenic Classification (IRIS): A; human carcinogen.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as a known human carcinogen.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** Not listed by the American Conference of Governmental Industrial Hygienists.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 1; carcinogenic to humans.**ATSDR, MRL:** Inhalation; intermediate; 1.41 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0375.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s039bcme.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlorome.html>
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol4/volume4.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>

Completed by: 4, 2, 1

Date: 8/23/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Bromine Pentafluoride**CAS Number:** 07789-30-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Bromine pentafluoride is specifically listed because it is acutely or chronically toxic, being corrosive to the eyes, skin and respiratory tract.

Molecular Weight: 174.92 g/mol**Synonyms:** BrF₅**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed as hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.1 ppm or 715 ug/m³; Critical effects: eye, skin and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is highly corrosive to eyes, skin and respiratory tract.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 7, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Bromine**CAS Number:** 07726-95-6

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Bromine is specifically listed because it is acutely or chronically toxic, causing lung damage, and respiratory irritation.

Molecular Weight: 159.81 g/mol**Synonyms:** Br₂**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV-TWA, 0.1 ppm or 654 ug/m³ STEL 0.2 ppm or 1.3 mg/m³. Critical effects: lung damage; and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank, causes lung damage and respiratory irritation.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 4, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet

Name: Bromoform

CAS Number: 00075-25-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Bromoform is specifically listed because it is a probable human carcinogen and it is acutely or chronically toxic, causing liver damage and respiratory irritation, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 252.80 g/mol

Synonyms: Bromoform, Methane, tribromo-, Methenyl tribromide, Tribromomethane

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - Air Unit Risk 1.1×10^{-6} per $\mu\text{g}/\text{m}^3$.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 0.5ppm or $5170 \mu\text{g}/\text{m}^3$; A3-confirmed animal carcinogen with unknown relevance to humans. Critical effects: respiratory and skin irritation, liver damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group3; not classifiable as carcinogenic to humans by IARC.

ATSDR, MRL: Oral, chronic; 0.02 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/bromofor.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol52/volume52.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 9, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Butyl acrylate, n-**CAS Number:** 00141-32-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. N-Butyl acrylate is specifically listed because it is acutely or chronically toxic, causing respiratory and central nervous system effects.

Molecular Weight (g/mol): 128.17**Synonyms:** Acrylic acid, n-Butyl ester, Butyl 2-propenoate**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS database.**PBT:** Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 2 ppm or 10,484 $\mu\text{g}/\text{m}^3$. Critical effect: eye and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound causes headache, respiratory effects, and central nervous system effects.**International IARC:** Not classifiable as carcinogenic to humans (Group 3).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol39/volume39.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/15/06, 8/20/06, 9/9/06

Toxic Compound Data Sheet**Name:** Butyl mercaptan, n-**CAS Number:** 00109-79-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. N-Butyl mercaptan is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation, plus thyroid and central nervous system effects.

Molecular Weight (g/mol): 90.19**Synonyms:** n-Butanethiol, 1-Mercaptobutane, 1-Butanethiol, Butanethiol, n-Butyl Mercaptan.**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on the U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.5 ppm or 1,844 $\mu\text{g}/\text{m}^3$. Critical effects: eye, skin and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound causes thyroid and central nervous system effects.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Butyl toluene, p-tert-**CAS Number:** 00098-51-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. P-tert- Butyl toluene is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation.

Molecular Weight (g/mol): 148.18

Synonyms: Benzene; 1-(1,1-dimethylethyl)-4-methyl-; 4-t-Butyltoluene; Toluene, p-tert-butyl-; p-tert-Butyltoluene; p-(t-Butyl) toluene; p-TBT; 1-(1,1-Dimethylethyl)-4-methylbenzene; 1-Methyl-4-tert-butylbenzene

U.S. EPA Carcinogenic Classification (IRIS): Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Not listed on the U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 1 ppm or 6,061 $\mu\text{g}/\text{m}^3$. Critical effects: eye, skin and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. This compound causes respiratory irritation and cardiovascular effects.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 4, 2, 1

Date: 8/24/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Cadmium compounds, as Cd**CAS Number:** 07440-43-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cadmium is specifically listed because it is known to be a human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 112.40 (cadmium); varies (compounds)

Synonyms: C.I. 77180, Kadmium

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time. B1 Probable Human Carcinogen based on limited evidence of carcinogenicity in humans. Inhalation unit risk factor of $1.8E-3 \mu\text{g}/\text{m}^3$.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Known to be human carcinogen (Part A).

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: $0.002 \text{ mg}/\text{m}^3$ or $2 \mu\text{g}/\text{m}^3$. Suspected human carcinogen (A2). BEI also recommended. Critical effect: kidney.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Carcinogenic to humans (Group 1).

ATSDR (MRL): $0.0002 \text{ mg}/\text{kg}/\text{day}$ oral route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/IRIS/subst/0141.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s028cadm.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cadmium.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol58/volume58.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp5.pdf>
7. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/16/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Calcium cyanamide**CAS Number:** 00156-62-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Calcium cyanamide is specifically listed because it is acutely or chronically toxic, causing respiratory irritation is caustic to the skin, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 80.11**Synonyms:** Calcium carbimide, Cyanamide, Lime nitrogen, Nitrogen lime**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.5 mg/m³ or 500 µg/m³. Critical effects: eye respiratory and skin irritation.**HSDB:** Listed in the Hazardous Substances Data Bank, causes respiratory irritation and caustic to the skin.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available.

Reference Material

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/calciumc.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH: ACGIH Worldwide.

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Captan**CAS Number:** 00133-06-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Captan is specifically listed because it is acutely or chronically toxic, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 300.60

Synonyms: Aacaptan; Agrox 2-Way and 3-Way; Amercide; Captan 50W; Captex; 4-Cyclohexene-1,2-dicarboximide, N-(trichloromethyl)thio-; Essofungicide 406; Glyodex 3722; Granox PFM; 1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-((trichloromethyl)thio)-; Kaptan; Le captane; NA 9099; Neracid; N-(trichloromethylmercapto)-delta(sup 4)-tetrahydro-phthalimide; N-trichloromethylthiocyclohex-4-ene-1,2-dicarboximide; N-trichloromethylthio-cis-delta(sup 4)-cyclohexene-1,2-dicarboximide; N-((trichloromethyl)thio) tetrahydrophthalimide; N-trichloromethylthio-3a,4,7,7a-tetrahydrophthalimide; Orthocide; Orthocide 406; Orthocide 50; Orthocide 7.5; Osocide; SR406; 3a,4,7,7a-Tetrahydro-N-(trichloromethanesulphenyl)phthalimide; Trichloromethyl-thio-1,2,5,6-tetrahydrophthalamide; Vancide 89; Vancide 89RE; Vancide P-75; Vanguard K; Vanicide; Vondcaptan; Agrosol S; Bangton; Captaf 85W; Captancapteneet 26,538; Flit 406; Gustafson captan 30-DD; Merpan; NCI-C00077; N-trichloromethylmercapto-4-cyclohexene-1,2-dicarboximide; 1,2,3,6-Tetrahydro-N-(trichloromethylthio)phthalimide; Captaf; Captane; ENT 26,538; Hexacap; Malipur; N-(trichlor-methylthio)-phthalimid; Stauffer Captan; Vangard K

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC and carcinogenic Oral RfD available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 mg/m³ or 5,000 µg/m³. Confirmed animal carcinogen Potential for agent to produce sensitization (SEN notation). Critical effect: skin irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Severe skin irritation.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/captan.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol30/volume30.pdf>

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Carbaryl**CAS Number:** 00063-25-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbaryl is specifically listed because it is acutely or chronically toxic as a cholinesterase inhibitor, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 201.20

Synonyms: Arylam; Carbamine; Carbaril; Carbatox; Carbatox-60; Carbatox 75; Carpolin; Carylderm; Cekubaryl; Crag Sevin; Denapon; Devicarb; Dicarbam; ENT 23,969; Gamonil; Germain's; Hexavin; Karbaryl; Karbaspray; Karbatox; Karbosep; Methylcarbamate 1-naphthalenol; Methylcarbamate 1-naphthol; Methylcarbamic acid; NA 2757; NAC; alpha-Naftyl-N-methylkarbamat; 1-Naphthol N-methylcarbamate; 1-Naphthyl ester; 1-Naphthyl methylcarbamate; 1-Naphthyl N-methylcarbamate; alpha-Naphthyl N-methylcarbamate; 1-Naphthyl-N-methyl-karbamat; N-Methylcarbamate de 1-naphtyle; N-Methyl-1-naftyl-carbamaat; N-Methyl-1-naphthyl-carbamat; N-Methyl-1-naphthyl carbamate; N-Methyl-alpha-naphthylcarbamate; N-Methyl-alpha-naphthylurethan; N-Metil-1-naftil-carbammato; OMS-29; Panam; Ravyon; Rylam; Seffein; Septene; Sevimol; Sevin; SOK; Tercyl; Toxan; Tricarnam; UC 7744; Union Carbide 7,744¹

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 5 mg/m³ or 5,000 µg/m³. Critical effects: cholinergic.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0019.htm>
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/carbaryl.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol12/volume12.pdf>

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Carbon disulfide**CAS Number:** 00075-15-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbon disulfide is specifically listed because it is acutely or chronically toxic, causing peripheral and central nervous system impairment, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 76.14

Synonyms: Carbon bisulfide, Carbon bisulphide, Carbon disulphide, Carbone (sufure de), Carbonio (solfuro di), Carbon sulfide, Carbon sulphide, Dithiocarbonic anhydride, Kohlendisulfid (Schwefelkohlenstoff), Koolstofdisulfide (Zwavelkoolstof), NCI-C04591, RCRA Waste Number p022, Schwefelkohlenstoff, Solfuro di carbonio, Sulphocarbonic anhydride, UN 1131, Weeviltox, Wegla dwusiarczek

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 700 $\mu\text{g}/\text{m}^3$; oral RfD also available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 20,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: 10 ppm or 31,141 $\mu\text{g}/\text{m}^3$. Critical effects: PNS impairment.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 934.23 $\mu\text{g}/\text{m}^3$ inhalation route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0217.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/carbondi.html>
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp82.pdf>
6. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Carbon tetrabromide**CAS Number:** 00558-13-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbon tetrabromide is specifically listed because it is acutely or chronically toxic, causing liver and kidney damage, and respiratory irritation.

Molecular Weight (g/mol): 331.65**Synonyms:** Carbon bromide, Methane tetrabromide, Tetrabromomethane**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.1 ppm or 1,356 $\mu\text{g}/\text{m}^3$. Critical effect is liver damage.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is associated with liver and kidney damage, as well as respiratory irritation.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available.

Reference Material

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide

Completed by: 9,2,1

Date: 8/16/06, 8/24/06, 9/10/06

Toxic Compound Data Sheet**Name:** Carbon tetrachloride**CAS Number:** 00056-23-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbon tetrachloride is reasonably anticipated to be a human carcinogen, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 153.84

Synonyms: Acritet; Benzinoform; Carbona; Carbon chloride; Carbon TET; Carbo tetrachloride; Czterochlorek wegla; ENT 4,705; Fasciolin; Flukoids; Freon 10; Halon 104; Mecatorina; Methane tetrachloride; Methane, tetrachloro-; Necatorina; Necatorine; Perchloromethane; R 10; Tetrachloorkoolstof; Tetrachloormetaan; Tetrachlorkohlenstoff, tetra; Tetrachlormethan; Tetrachlorocarbon; Tetrachloromethane; Tetrachlorure de carbone; Tetrachorkohlenstoff Uvasol; Tetracloruro di carbonio; Tetrafinol; Tetraform; Tetrasol; Univerm; Ventox; Vermoestricid; WLN: GXGGG

U.S. EPA Carcinogenic Classification (IRIS): Class 2B Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is $1.5E-5 \mu\text{g}/\text{m}^3$.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 ppm or $31,460 \mu\text{g}/\text{m}^3$. TLV STEL: 10 ppm or $62,920 \mu\text{g}/\text{m}^3$. Suspected human carcinogen (A2). Critical effect: liver damage, cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 188.76 µg/m³ inhalation route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s029carb.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/carbonte.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol20/volume20.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp30.pdf>
7. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Toxic Compound Data Sheet**Name:** Carbonyl fluoride**CAS Number:** 00353-50-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbonyl fluoride is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation.

Molecular Weight (g/mol): 66.01

Synonyms: Carbon difluoride oxide, Carbon fluoride oxide, Carbon oxyfluoride, Carbonyl difluoride, Carbonyl Fluoride, Carbonyl fluoride, Fluoroformyl fluoride, Fluorophosgene

U.S. EPA Carcinogenic Classification (IRIS): Not listed on (IRIS) database.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 2 ppm or 5,400 $\mu\text{g}/\text{m}^3$. TLV STEL: 5ppm or 13,499 $\mu\text{g}/\text{m}^3$. Critical effects: respiratory irritation, bone damage and fluorosis.

HSDB: Listed in the Hazardous Substances Data Bank. Eye, skin and respiratory irritation.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available.

Reference Material

1. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Carbonyl sulfide**CAS Number:** 00463-58-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 for the following reason(s): it is a compound that has been determined to be carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Carbonyl sulfide and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP), causing central nervous system and other toxic effects.

Molecular Weight (g/mol): 60.07

Synonyms: Carbon oxide sulfide, Carbon monoxide monosulfide, Carbon oxide sulfide, Carbon oxysulfide, Carbonyl sulfide-(32)S, HSDB 6127, Oxycarbon sulfide, Sulfure de carbonyle [French], Sulfuro de carbonilo [Spanish], Carbonyl sulfide-(SUP 32)S

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC not verifiable at this time. Oral RfD and carcinogenicity information not available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed in American Conference of Governmental Industrial Hygienists (ACGIH) 2006 TLV and BEI indices.

HSDB: Listed in the Hazardous Substances Data Bank: effects are listed as irritant to eyes, causing painful conjunctivitis, photophobia, lacrimation, and corneal opacity, gastro-intestinal effects, profuse salivation, nausea, vomiting, diarrhea, central nervous system effects: giddiness, headache, vertigo, amnesia, confusion, & unconsciousness, also causes tachypnea, palpitations, tachycardia, arrhythmia, sweating, weakness, & muscle cramps.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0617
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/carbonyl.html>
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 1

Date 8/17/06, 9/9/06

Toxic Compound Data Sheet**Name:** Catechol**CAS Number:** 120-80-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Catechol acutely and chronically toxic, and is a probably carcinogen. Exposure causes eye irritation, dermatitis, respiratory irritation, and kidney effects.

Molecular Weight(g/mol): 110.11**Synonyms:** None**U.S. EPA Carcinogenic Classification (IRIS):** Not Listed U.S. EPA IRIS database.**PBT:** Not Listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not Listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not Listed in Section 112r of the Clean Air Act.**ACGIH:** TLV: 5ppm; Notations: Skin; A3 Confirmed Animal Carcinogen; Critical effects: eye irritation, dermatitis, respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Exposure can cause a rise in blood pressure, apparently from peripheral vasoconstriction, large doses result in degenerative changes in the renal tubules.**International IARC:** Grouped as 2B; Possibly carcinogenic to Humans.**ATSDR, MRL:** Not Available

Reference Material.

1. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos30.php>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system (<http://toxnet.nlm.nih.gov>).

Completed by: 3,1

Date: 9/12/06, 9/16/06

Toxic Compound Data Sheet**Name:** Chloramben**CAS Number:** 00133-90-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chloramben is specifically listed because it is acutely or chronically toxic, causing skin irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 206.03

Synonyms: ACP-M-728, Ambiben, Amiben, Amiben DS, Amibin, 3-Amino-2,5-dichlorobenzoic acid, Amoben, Benzoic acid, 3-amino-2,5-dichloro-, Chlorambened, Chlorambene, 2,5-Dichloro-3-aminobenzoic acid, NCI-C00055, Vegaben, Vegiben

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** Not listed in (ACGIH) 2006 TLV.**HSDB:** Listed in the Hazardous Substances Data Bank. Skin irritation**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0023.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chloramb.html>
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/17/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chlordane**CAS Number:** 00057-74-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chlordane is specifically listed because it is a probable human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) and a Persistent, Bioaccumulative and Toxic (PBT) compound by U.S. EPA.

Molecular Weight (g/mol): 409.80

Synonyms: Chlor Kil; Corodan; ENT 9, 932; Kypchlor; M 140; 4,7-Methanoindan,; 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-; NCI-C00099; Niran; Octachlorodihydrodicyclopentadiene; 1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-; hexahydro-4, 7-methano-indene; 1,2,4,5,6,7,8,8-Octachloro-3a,4,7,7a-hexahydro-4,7-methylene indane; Octachloro-4, 7-methanohydroindane; Octachloro-4, 7-methanotetrahydroindane; Octa-Klor; Oktaterr; Ortho-Klor; Synklor; TAT Chlor 4; Topiclör; Toxichlor; Belt; CD 68; Chlorindan; Dowchlor; HCS 3260; M 410; 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-; Velsicol 1068; Chlordane (Technical)

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 0.7 µg/m³. Oral RfD available. Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is 1E-4 µg/m³.

PBT: Listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Confirmed animal carcinogen. Critical effects: seizures, liver.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 0.02 µg/m³ inhalation route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/iris/toxreviews/0142-tr.pdf>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/cheminfo.htm>
<http://www.epa.gov/glnpo/bns/levelii/leviisubsus.html>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlordan.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol79/volume79.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp31.pdf>
7. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>
<http://toxnet.nlm.nih.gov/cgi-bin/sis/download.txt>

Completed by: 9, 2, 1

Date: 8/17/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chlorine dioxide**CAS Number:** 10049-04-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chlorine dioxide is specifically listed because it is acutely or chronically toxic, causing respiratory irritation and bronchitis.

Molecular Weight (g/mol): 67.46

Synonyms: Chlorine oxide, Alcide, Anthium dioxide, Caswell No. 179A, Chlorine peroxide, Chlorine (IV) oxide, Chloroperoxyl, Chloryl radical, Dioxide de cloro [Spanish], Dioxide de chlore [French], Doxide 50, EPA Pesticide Chemical Code 020503, HSDB 517.

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 0.2 $\mu\text{g}/\text{m}^3$; oral RfD available. Not classifiable as to human carcinogenicity (Class D).

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 1,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: 0.1 ppm or 276 $\mu\text{g}/\text{m}^3$. TLV STEL: 0.3 ppm or 828 $\mu\text{g}/\text{m}^3$. Critical effects: respiratory irritation and bronchitis.

HSDB: Listed in the Hazardous Substances Data Bank. Respiratory irritation.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 2.7591 $\mu\text{g}/\text{m}^3$ inhalation route intermediate exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/IRIS/toxreviews/0496-tr.pdf>
2. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxpro2.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp160.pdf>
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/18/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chlorine**CAS Number:** 07782-50-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chlorine is specifically listed because it is acutely or chronically toxic, is a eye, skin and respiratory irritant, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 70.91

Synonyms: 7681-52-9, 7790-92-3, Bertholite, Caswell No. 179, Chloor [Dutch], Chlore [French], Chlor [German], Cloro [Italian], Cloro [Spanish], EPA Pesticide Chemical, Code 020501, HSDB 206, Hypochlorite (sodium), Hypochlorous acid, Molecular chlorine, UN 1017.

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 2,500 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: 0.5 ppm or 1,450 $\mu\text{g}/\text{m}^3$. TLV STEL: 1.0 ppm or 2,900 $\mu\text{g}/\text{m}^3$.
Critical effect: eye and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: (Under chlorinated drinking water): Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0405
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlorine.html>
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol52/volume52.pdf>
6. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/18/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chloroacetic acid**CAS Number:** 00079-11-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chloroacetic acid is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 94.50**Synonyms:** Chloroethanoic acid, Monochloroacetic acid**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on (IRIS) database.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed on as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** Listed as Monochloroacetic acid. Critical effect: shin, eye and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Eye, skin and respiratory irritation.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available.

Reference Material.

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chloroac.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/18/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chlorobenzene**CAS Number:** 00108-90-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chlorobenzene is specifically listed because it is acutely or chronically toxic, causing liver and kidney damage, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 112.56 g/mol

Synonyms: Benzene Chloride; Benzene, Chloro-; Chloorbenzeen; Chlorbenzene; Chlorbenzol; Chlorobenzen; Chlorobenzene; Chlorobenzenu; Chlorobenzol; Clorobenzene; Mcb; Monochloorbenzeen; Monochlorbenzene; Monochlorbenzol; Monochlorobenzene; Monoclorobenzene; Nci-c54886; Phenyl Chloride; Un 1134

U.S. EPA Carcinogenic Classification (IRIS): D; not classifiable as to human carcinogenicity.

PBT: Listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 10ppm or 46037 ug/m³; A3- Confirmed Animal Carcinogen; Critical effect: liver damage.

HSDB: Listed in the Hazardous Substances Data Bank, causing liver and kidney damage.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Oral, Intermediate 0.4 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/glnpo/bns/levelii/leviisubsus.html>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlorobe.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp131.pdf>

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chlorobenzilate**CAS Number:** 00510-15-6

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chlorobenzilate is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 325.20 g/mol

Synonyms: Benzeneacetic Acid, 4-chloro-alpha-(4-chlorophenyl)- Alpha-hydroxy-, Ethyl Ester Benzilan Benzilic Acid, 4,4'-dichloro-, Ethyl Ester Benz-o-chlor Chlorbenzilat Chlorbenzylate Chlorobenzilate Chlorobenzylate Compound 338 4,4'-dichlorbenzilsaeureaethylester (German) 4,4'-dichlorobenzilate 4,4'-dichlorobenzilic Acid Ethyl Ester Ent 18,596 Ethyl 4-chloro-alpha-(4-chlorophenyl)-alpha-Hydroxybenzeneacetate Ethyl 4,4'-dichlorobenzilate Ethyl P,p'-dichlorobenzilate Ethyl 4,4'-dichlorodiphenyl Glycollate Ethyl 4,4'-dichlorophenyl Glycollate Ethylester Kyseliny 4,4-dichlorbenzilove (Czech) Ethyl Ester of 4,4'-dichlorobenzilic Acid Ethyl-2-hydroxy-2,2-bis(4-chlorophenyl)acetate Folbex G 23992 G 338 Geigy 338 Kop-mite Nci-c00408 Nci-c60413 Rcra Waste Number U038

U.S. EPA Carcinogenic Classification (IRIS): Listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r.**ACGIH:** Not listed by ACGIH.**HSDB:** Listed in the Hazardous Substances Data Bank. Eye, skin and respiratory irritation.

International IARC: Group 3; Not classifiable as to Carcinogenicity to Humans.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlo-zil.html>
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol30/volume30.pdf>

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chloroform**CAS Number:** 00067-66-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chloroform is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 119.38 g/mol

Synonyms: Formyl Trichloride; Freon 20; Methane Trichloride; Methane, Trichloro-; Methenyl Chloride; Methenyl Trichloride; Methyl Trichloride; NCI-CO2686; R-20; TCM; Trichloroform; Trichloromethane

U.S. EPA Carcinogenic Classification (IRIS): B2, probable human carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Listed as Reasonably Anticipated to be a Human Carcinogen.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 20,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 10ppm or 48826 ug/m³; A3- Confirmed Animal Carcinogen.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 2B; Possibly Carcinogenic to Humans.**ATSDR, MRL:** Inhalation, Chronic 97.65 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s038chlo.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlorofo.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp6.pdf>
8. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Chloromethyl methyl ether**CAS Number:** 00107-30-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chloromethyl methyl ether is specifically listed because it is known to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 80.50 g/mol

Synonyms: Chlordimethylether; Chlorodimethyl ether; Chloromethoxymethane; Chloromethyl Methyl Ether; CMME; Dimethylchloroether; Ether, chloromethyl methyl; Ether, Dimethyl Chloro; Ether Methylque Monochlore; HSDB 908; chloromethoxy-Methane; Methoxychloromethane; Methoxymethyl chloride; Methyl Chloromethyl Ether; Methyl Chloromethyl Ether, Anhydrous; Monochlorodimethyl Ether; Monochloromethyl Methyl Ether; Rcra Waste Number U046; UN 1239

U.S. EPA Carcinogenic Classification (IRIS): A; human carcinogen; No Reference Concentration for Chronic Inhalation Exposure Available; No Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure Available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 5,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV-TWA lowest; Lung cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 1: Carcinogenic to humans.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chlo-eth.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol4/volume4.pdf>
6. U.S. EPA 2001. List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Beta-Chloroprene**CAS Number:** 00126-99-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Beta-Chloroprene is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 88.54 g/mol**Synonyms:** 2-Chloro-1,3-butadiene; 2-Chlorobutadiene; Chloroprene**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Listed as Reasonably Anticipated to be a Human Carcinogen.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r.**ACGIH:** TLV-TWA 10ppm or 36212 ug/m³; Critical Effects; respiratory and eye irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Causes central nervous system depression; damage to lungs, liver and kidney, skin and respiratory irritation.**International IARC:** Group 2B; Possibly Carcinogenic to Humans.**ATSDR, MRL:** Not Available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s042chlo.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chloropr.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 9, 2, 1

Date: 8/22/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet

Name: Chromium (VI) Compounds, as Cr; metal and Cr III compounds; water-soluble Cr VI compounds; insoluble Cr VI compounds

CAS Number: 07440-47-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Chromium (VI) Compounds are specifically listed because they are known to be a carcinogenic to humans, and are listed as a Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: Not listed

Synonyms: Chromic ion; Chromium; Chromium, ion; Chromium (VI); Chromium (VI) ion
U.S. EPA Carcinogenic Classification (IRIS): Group A - known human carcinogen by the inhalation route of exposure

U.S. EPA Carcinogenic Classification (IRIS): Group A - known human carcinogen by the inhalation route.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r

ACGIH: TLV-TWA 50 ug/m³, as Cr-Metal and trivalent Cr compounds; A4- Not Classifiable as a Human Carcinogen. TLV-TWA 50 ug/m³, as Cr- Water-Soluble Cr VI Compounds; A1 Confirmed Human Carcinogen. TLV-TWA 10 ug/m³, as Cr- Insoluble Cr VI Compounds; A1-Confirmed Human Carcinogen

HSDB: Listed in the Hazardous Substances Data Bank, causes lung cancer.

International IARC: Group 1; Carcinogenic to Humans

ATSDR, MRL: Inhalation, Intermediate 0.000005 mg/m³

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
<http://www.epa.gov/IRIS/toxreviews/0144-tr.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chromium.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol49/volume49.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp7.pdf>

Completed by: 9, 2, 1

Date: 8/23/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet

Name: Cobalt (& cobalt compounds), as Co

CAS Number: 07440-48-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cobalt compounds are specifically listed because these compounds are acutely or chronically toxic, causing asthma, myocardial effects, respiratory irritation, and are listed as a Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: 58.93 g/mol

Synonyms: Co

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 20 ug/m³, as Co; A3- Confirmed Animal Carcinogen. Critical effects asthma, myocardial effects and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank. Exposure causes irritation of eyes, skin, decreased pulmonary function, wheezing, dyspnea.

International IARC: Possibly Carcinogenic to Humans (Group 2B).

ATSDR, MRL: Inhalation, Chronic 0.1 ug/m³.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cobalt.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol52/volume52.pdf>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp33.pdf>

Completed by: 9, 2, 1

Date: 8/23/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet

Name: Coke Oven Emissions

CAS Number: *

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Coke Oven Emissions, as benzene soluble aerosol are specifically listed because they are known to be carcinogenic to humans, and are listed as Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: None

Synonyms: Coke oven emissions; Coal tar pitch volatiles, as benzene soluble organics

U.S. EPA Carcinogenic Classification (IRIS): A; human carcinogen; Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure - 6.2×10^{-4} per ug/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Listed as Known Human Carcinogen(Part A).

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: Human Occupational Inhalation; Lung Tumors.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 1; Carcinogenic to Humans.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s049coke.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cokeoven.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol34/volume34.pdf>

Completed by: 9, 2, 1

Date: 8/23/06, 8/24/06, 9/10/06

Toxic Compound Data Sheet

Name: Copper fume; dusts and mists, as Cu

CAS Number: 07440-50-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Copper fumes are specifically listed because these compounds are acutely or chronically toxic, causing metal fume fever and respiratory irritation.

Molecular Weight: None

Synonyms: None

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 200 ug/m³; Critical effects: metal fume fever; respiratory irritation and gastro-intestinal disturbance.

HSDB: Listed in the Hazardous Substances Data Bank. Causes metal fume fever; respiratory irritation and gastro-intestinal disturbance.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material.

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/23/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** meta-Cresol**CAS Number:** 00108-39-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Meta-Cresol is specifically listed because it is acutely or chronically toxic, causing eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 108.14 g/mol

Synonyms: Phenol, 3-methyl-; Caswell No. 261A; EPA Pesticide Chemical Code 022102; HSDB 1815; M-Cresylic Acid; M-Hydroxytoluene; M-Kresol; M-Methylphenol; M-Oxytoluene; M-Toluol; Meta-Cresol; Nsc 8768; 1-Hydroxy-3-Methylbenzene; 3-Cresol; 3-Hydroxytoluene; 3-Methylphenol

U.S. EPA Carcinogenic Classification (IRIS): C; possible human carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r.**ACGIH:** TLV-TWA 5ppm or 22,115ug/m³; Critical effects: eye skin and upper respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Causes eye, skin and respiratory irritation.**International IARC:** Not listed as an Agent Reviewed by IARC.**ATSDR, MRL:** Oral Acute 0.05 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0301.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cresols.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp34.pdf>

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** ortha-Cresol**CAS Number:** 00095-48-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ortha-Cresol is specifically listed because it is a possible human carcinogen and it is acutely or chronically toxic, causing severe eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 108.14 g/mol

Synonyms: Phenol, 2-methyl-; Cresols (o-,m-,p-); HSDB 1813; NSC 23076; NSC 36809; o-Cresol; o-Cresylic acid; o-Hydroxytoluene; o-Kresol; o-Methylphenol; o-Methylphenylol; o-Oxytoluene; o-Toluol; Orthocresol; 1-Hydroxy-2-methylbenzene; 2-Cresol; 2-Hydroxytoluene; 2-Methylphenol; Methylphenol

U.S. EPA Carcinogenic Classification (IRIS): C; Possible human carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r.**ACGIH:** TLV-TWA 5ppm or 22,115ug/m³; Critical effects: eye skin and upper respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Causes eye, skin and respiratory irritation.**International IARC:** Not listed as an Agent Reviewed by IARC.**ATSDR, MRL:** Oral Acute 0.05 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cresols.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp34.pdf>

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Cresol para-**CAS Number:** 00106-44-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Para-Cresol is specifically listed because it is a possible human carcinogen and it is acutely or chronically toxic, causing severe eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 108.14 g/mol

Synonyms: Phenol, 4-methyl-; Cresoles; Cresols (o-,m-,p-); Cresols; HSDB 1814; NSC 3696; p-Cresol; p-Cresylic acid; p-Hydroxytoluene; p-Kresol; p-Methylhydroxybenzene; p-Methylphenol; p-Toluol; p-Tolyl alcohol; Paramethyl phenol; 1-Hydroxy-4-methylbenzene; 1-Methyl-4-hydroxybenzene; 4-Hydroxytoluene; p-Oxytoluene; para-Cresol; 4-Cresol; 4-Methylphenol; Methylphenol

U.S. EPA Carcinogenic Classification (IRIS): C; Possible human carcinogen.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant by U.S. EPA.**112r:** Not listed in Section 112r.**ACGIH:** TLV-TWA 5ppm or 22,115ug/m³; Critical effects: eye skin and upper respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Causes eye, skin and respiratory irritation.**International IARC:** Not listed as an Agent Reviewed by IARC.**ATSDR, MRL:** Oral Acute 0.05 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cresols.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp34.pdf>

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet

Name: Cresols / cresylic acid, all isomers

CAS Number: 01319-77-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cresols / cresylic acid are specifically listed because they are acutely or chronically toxic, causing severe eye, skin and respiratory irritation, and are listed as Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: 108.14 g/mol

Synonyms: Phenol, methyl-; Cresol; Acide cresylique; I3-02360; Ar-toluenol; Bacillol; Cresoli; HSDB 250; Hydroxytoluole; Kresolen; Krezol; Methylphenol; Acede cresylique; Cresylic acid; Kresole; Tricresol; Acido cresilico; Tekresol

U.S. EPA Carcinogenic Classification (IRIS): Listed in IRIS C; Possible human carcinogen.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 5ppm or 22,115ug/m³; Critical effects: eye skin and upper respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Causes eye, skin and respiratory irritation.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cresols.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet

Name: Cumene

CAS Number: 00098-82-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cumene is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment, eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 120.19 g/mol

Synonyms: Isopropyl benzene; 2-Phenylpropane; Isopropylbenzol

U.S. EPA Carcinogenic Classification (IRIS): D; Not classifiable as to human carcinogenicity; Increased kidney weight in female rats and adrenal weights in male and female rats; RfC: 4×10^{-1} mg/m³.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: TLV-TWA 50 ppm or 245,787 ug/m³. Critical effect: Central nervous system impairment; skin, eye and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Causes central nervous system impairment ; eye, skin and respiratory irritation.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cumene.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Cyanides, free (IRIS) & compounds

CAS Number: 00057-12-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cyanides are specifically listed because they are acutely or chronically toxic, causing central nervous effects, damage to the brain and heart, and are listed as a Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: None

Synonyms: Carbon nitride ion; Cyanide ion; Cyanure; Free cyanide; RCRA Waste Number p030; Cyanide; Cyanide, free; Isocyanide; Cyanide anion

U.S. EPA Carcinogenic Classification (IRIS): D; Not classifiable as to human carcinogenicity.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed in Section 112r.

ACGIH: Not listed by ACGIH.

HSDB: Not listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Oral Int. 0.05 mg/kg/day .

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/cyanide.html>
3. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp8.pdf>

Completed by: 9, 2, 1

Date: 8/24/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Cyanogen Chloride

CAS Number: 00506-77-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cyanogen chloride is specifically listed because it is acutely or chronically toxic, causing pulmonary edema; eye, skin and respiratory irritation.

Molecular Weight: 61.48 g/mol

Synonyms: Chlorcyan; Chlorocyan; Chlorocyanide; Chlorocyanogen; Chlorure de cyanogene; Cyanogen chloride; RCRA Waste Number p033; UN 1589

U.S. EPA Carcinogenic Classification (IRIS): Not Listed in IRIS.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV- ceiling 0.03 ppm or 75 ug/m³ Critical effects; pulmonary edema; eye, skin and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Repeated inhalation of small amounts of cyanogen chloride causes dizziness, congestion of lung, loss of appetite, weight loss, and mental deterioration.

International IARC: Not listed as an Agent Reviewed by IARC

ATSDR, MRL: Not Available

Reference Material.

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 9, 2, 1

Date: 8/24/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Cyanogen

CAS Number: 00460-19-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cyanogen is specifically listed because it is acutely or chronically toxic causing central nervous system effects, eye and respiratory irritation.

Molecular Weight: 52.04 g/mol

Synonyms: Dicyan; Nitriloacetonitrile; Oxalic nitrile; Oxalonitrile; Oxalyl cyanide; Prussite; Carbon nitride; Dicyanogen; Oxalic acid dinitrile; RCRA Waste Number p031; Cyanogen; Ethanedinitrile; UN 1026

U.S. EPA Carcinogenic Classification (IRIS): Chronic Oral Exposure Information Available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV-TWA 10 ppm or 21,284 ug/m³. Critical effects: eye and respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Massive doses may produce, without warning, sudden loss of consciousness and prompt death from respiratory arrest.

International IARC: Not listed as an Agent Reviewed by IARC.

ATSDR, MRL: Not Available.

Reference Material.

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/index.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 9, 2, 1

Date: 8/24/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Cyclohexane**CAS Number:** 00110-82-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cyclohexane is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment; eye, skin and respiratory irritation.

Molecular Weight (g/mol): 84.16

Synonyms: Benzenehexahydride, Benzene, hexahydro-cicloesano (Italian), Cyclohexaan (Dutch), Cyclohexan (German), Cykloheksan (Polish), Hexahydrobenzene, Hexamethylene, Hexanaphthene

U.S. EPA Carcinogenic Classification (IRIS): Reference Concentration for Chronic Inhalation Exposure RfC is 6,000 $\mu\text{g}/\text{m}^3$.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 100 ppm or 344,213 $\mu\text{g}/\text{m}^3$. Critical effects include: Central nervous system impairment.

HSDB: Listed in the Hazardous Substances Data Bank. Central nervous system depressant: vapor is irritating to the skin, eyes, and respiratory tract.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=1005
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 9, 2, 1

Date: 8/24/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Cyclonite**CAS Number:** 00121-82-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Cyclonite is specifically listed because it is acutely or chronically toxic, causing liver damage; eye and skin irritation.

Molecular Weight (g/mol): 222.26

Synonyms: Cyclotrimethylenenitramine; Cyclotrimethylenetrinitramine; Cyklonit; Esaidro-1,3,5-trinitro-1,3,5-triazina; Heksogen; Hexahydro-1,3,5-trinitro-1,3,5-triazin; Hexahydro-1,3,5-trinitro-1,3,5-triazine; Hexahydro-1,3,5-trinitro-s-triazine; Hexogeen; Hexogen; Hexogen 5w; Hexolite; Hexolite, dry or containing, by weight, less than 15% water; PBX(AF) 108; PBXW 108(e); RDX; T4; 1,3,5-Triazine, hexahydro-1,3,5-trinitro-; s-Triazine, hexahydro-1,3,5-trinitro-; Trimethyleentritramine; Trimethylenetrinitramine; sym-Trimethylenetrinitramine; Trinitrocyclotrimethylene triamine; 1,3,5-; Trinitrohexahydro-s-triazine; 1,3,5-Trinitro-1,3,5-triazacyclohexane; UN 0072; UN 0118; Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)

U.S. EPA Carcinogenic Classification (IRIS): (Under Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)): oral RfD available. Class C Possible Human Carcinogen; based on oral evidence (oral slope factor given).

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.5 mg/m³ or 500 µg/m³. Critical effects: liver damage.

HSDB: Listed in the Hazardous Substances Data Bank. Causes irritation of eyes and skin; headache, irritability, fatigue, weakness, tremor, nausea, dizziness, vomiting,

insomnia and convulsions.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0313
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 2, 1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** D 2,4-, salts and esters**CAS Number:** 00094-75-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 2,4-D is acutely and chronically toxic as an upper respiratory and skin irritant, and can affect the nervous system after inhalation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 221.04

Synonyms: Acetic acid, (2,4-dichlorophenoxy)-; Acide 2,4-dichloro phenoxyacetique; Acido(2,4-dicloro-fenossi)-acetico; Agrotect; Amidox; Amoxone; Aqua-Kleen; BH 2,4-D; Brush-Rhap; Chloroxone; Crop Rider; 2,4-D; Dacamine; Debroussillant 600; Decamine; Desormone; (2,4-Dichloor-fenoxy)-azijnzuur; 2,4-Dichlorophenoxyacetic acid; Dichlorophenoxyacetic acid, 2,4-; 2,4-Dichlorophenoxyacetic acid; (2,4-Dichlorophenoxy)-erssigsaure; Dicopur; Dinoxol; DMA-4; 2,4-Dwuchlorofenoksyoctowy kwas; Emulsamine E-3; ENT 8,538; Envert DT; Esteron; Estone; Farmco; Fernimine; Fernoxone; Foredex 75; Hedonal; Herbidal; Krotiline; Macrondray; Monosan; Moxone; Netagrone; NSC 423; Pennamine; Phenox; Pielik; Plantgard; RCRA Waste Number u240; Salvo; Spritz-Hormit/2,4-D; Transamine; Tributon; U 46DP; U-5043; Vidon 638; Visko-Rhap; Weedar-64; Weedatul; Weedez Wonder Bar; Weed-Rhap; Weed Tox; b-Selektonon; Crotilin; D 50; 2,4-D acid; DED-Weed LV-69; Dichlorophenoxyacetic acid; Dicotox; Dormone; Emulsamine BK; Envert 171; Esterone Four; Fernesta; Feroxone; Formula 40; Ipaner; Lawn-Keep; Miracle; NA 2765; Netagrone 600; Pennamine D; Planotox; Rhodia; Spritz-Hormin/2,4-D; Trinoxol; Vergemaster; Weed-Ag-Bar; Weed-B-Gon; Weedone LV4; Weedtrol; Dichlorophenoxyacetic acid (2,4-D)

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC and carcinogenicity information not available. Oral RfD available for hematologic, hepatic, and renal toxicity.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 10 mg/m³ or 10,000 µg/m³. Not classifiable as a human carcinogen (A4).
Critical effects: upper respiratory and skin irritation.

HSDB: Listed in the Hazardous Substances Data Bank. This compound causes acute nervous system effects after inhalation.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0150
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-oxyac.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 1, 1

Date: 8/16/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** DDE**CAS Number:** 03547-04-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. DDE is acutely and chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) and a Persistent, Bioaccumulative and Toxic (PBT) pollutant by U.S. EPA.

Molecular Weight (g/mol): 318.03

Synonyms: 72-55-9; 2,2-Bis(4-chlorophenyl)-1,1-dichloroethene; 2,2-Bis(p-chlorophenyl)-1,1-dichloroethylene; p,p'-DDE; DDT dehydrochloride; 1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene; Dichlorodiphenyldichloroethylene; Dichlorodiphenyldichloroethylene, p,p'-; 1,1'-Dichloroethenyldiene)bis(4-chlorobenzene); Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)-; NCI-C00555; Dichlorodiphenyldichloroethylene (DDE)

U.S. EPA Carcinogenic Classification (IRIS): Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Based on oral evidence; oral slope factor available, inhalation unit risk factor not available.

PBT: Listed as a PBT action plan chemical.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: Not listed in American Conference of Governmental Industrial Hygienists (ACGIH) 2006.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): Listed by the ATSDR.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0328.htm>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/ddt.htm>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dde.html>
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/toxprofiles/tp35.pdf>
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 1, 1

Date: 8/15/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Decaborane**CAS Number:** 17702-41-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Decaborane is acutely and chronically toxic, affecting the central nervous system, lung function, and cognitive function. Human effects include tremors and convulsive seizures, headache, dizziness, and nausea.

Molecular Weight (g/mol): 122.31**Synonyms:** Decaborane(14), Decaboron tetradecahydride**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on U.S. EPA's Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.05 ppm or 250 $\mu\text{g}/\text{m}^3$. TLV STEL: 0.15 ppm or 750 $\mu\text{g}/\text{m}^3$. Potential significant contribution to the overall exposure by the cutaneous route. Critical effects: central nervous system, lung function, cognitive decrement.

HSDB: Listed in the Hazardous Substances Data Bank. Central nervous system effects have been observed in humans, including tremors and convulsive seizures, headache, dizziness, and nausea.

International IARC: Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** Not listed by the ATSDR.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 1, 1

Date: 8/16/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Di (2-ethylhexyl) phthalate (DEHP)**CAS Number:** 00117-81-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. DEHP is acutely and chronically toxic, causing peripheral nervous system symptoms, hemopoetic effects, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 390.54

Synonyms: BEHP, Bis(2-ethylhexyl)-1,2-benzene-dicarboxylate, Bis(2-ethylhexyl)phthalate, Bisoflex 81, Bisoflex DOP, Compound 889, DAF 68, Di(2-ethylhexyl)orthophthalate, Dioctyl phthalate, Di-sec-octyl phthalate, DOP, Ergoplast FDO, Ethylhexyl phthalate, 2-Ethylhexyl phthalate, Eviplast 80, Eviplast 81, Fleximel, Flexol DOP, Flexol Plasticizer DOP, Good-Rite GP 264, Hatcol DOP, Hercoflex 260, Kodaflex DOP, Mollan O, NCI- C52733, Nuoplaz DOP, Octoil, Octyl phthalate, Palatinol AH, Phthalic acid, bis(2-ethylhexyl) ester, Phthalic acid, dioctyl ester, Pittsburgh PX-138, Platinol DOP, RC Plasticizer DOP, RCRA Waste Number u028, Reomol D 79P, Reomol DOP, Sicol 150, Staflex DOP, Truflex DOP, Vestinol AH, Vinicizer 80, Witcizer 312

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC not available; oral RfD available. Class B2- probable human carcinogen.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Reasonably anticipated to be a human carcinogen (Part B)

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 mg/m³ or 5,000 µg/m³. Confirmed animal carcinogen with unknown relevance to humans (A3). Critical effect: irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation causes peripheral

nervous system symptoms, hemopoetic effects.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): 0.06 mg/kg/day oral route chronic exposure. Toxicological Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0014
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s087dehp.pdf>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol77/volume77.pdf>
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp9.html>
7. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/eth-phth.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Diazomethane**CAS Number:** 00334-88-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diazomethane is acutely and chronically toxic, a suspected carcinogen and causes irritation of eyes, dizziness, denudation of mucous membranes, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 42.04**Synonyms:** Methane, diazo-; Azimethylene; Diazirine; Diazonium, methylyde; CCRIS 205; HSDB 1628**U.S. EPA Carcinogenic Classification (IRIS):** Information reviewed, but no inhalation RfC determined. No oral RfD available.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.2 ppm or 344 $\mu\text{g}/\text{m}^3$. Suspected human carcinogen (A2). Critical effect: irritation, cancer (lung).**HSDB:** Listed in the Hazardous Substances Data Bank. Causes irritation of eyes, dizziness, denudation of mucous membranes.**International IARC:** Not classifiable as to carcinogenicity to humans (Group 3).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0616
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/diazomet.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol7/volume7.pdf>

Completed by: 5, 1, 1,

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Diborane**CAS Number:** 19287-45-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diborane is acutely and chronically toxic. Acute poisoning in humans causes tightness, heaviness and burning in the chest, coughing, shortness of breath, pericardial pain, nausea, shivering and drowsiness. Chronic exposures cause pulmonary irritation, headaches, dizziness, muscular fatigue and weakness and occasional, transient tremors.

Molecular Weight (g/mol): 27.69**Synonyms:** Boroethane, Boron hydride, Diboron hexahydride**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ): 2,500 lbs.**ACGIH:** TLV: 0.1 ppm or 113 $\mu\text{g}/\text{m}^3$. Critical effects: damage to upper respiratory tract and central nervous system.**HSDB:** Listed in the Hazardous Substances Data Bank. Acute poisoning in humans causes tightness, heaviness and burning in chest, coughing, shortness of breath, pericardial pain, nausea, shivering and drowsiness. Chronic exposures cause pulmonary irritation, headaches, dizziness, muscular fatigue and weakness and occasional, transient tremors.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): Not listed by the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dibromo-3-chloropropane, 1,2- (DBCP)**CAS Number:** 00096-12-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. DBCP causes endocrine disruption effects in humans, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 236.36

Synonyms: Propane, 1,2-dibromo-3-chloro-; Dibromochloropropane; AI3-18445; BBC 12; Caswell No. 287; CCRIS 215; Dibromchlorpropan [German]; EPA Pesticide Chemical Code 011301; Fumagon; Fumazone; Fumazone 86E; HSDB 1629; NCI-C00500; Nemabrom; Nemaforme; Nemagon; Nemagon Soil Fumigant; Nemagon 20; Nemagon 20G; Nemagon 206; Nemagon 90; Nemanax; Nemanex; Nemapaz; Nemaset; Nemazon; Oxy DBCP; Propane, 1-chloro-2,3-dibromo-; SD 1897; 1-Chloro-2,3-dibromopropane; 1,2-Dibrom-3-chlor-propan [German]; 1,2-Dibromo-3-chloropropane; 1,2-Dibromo-3-cloro-propano [Italian]; 3-Chloro-1,2-dibromopropane; OS 1897; RCRA Waste Number u066; 1,2-Dibroom-3-chloorpropan [Dutch]; Dibromo-3-chloropropane (DBCP)

U.S. EPA Carcinogenic Classification (IRIS): Chronically toxic, inhalation RfC is 0.2 µg/m³. No cancer information available.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: Not listed by the American Conference of Governmental Industrial Hygienists (ACGIH) 2006.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 1.93 µg/m³ inhalation route intermediate exposure. Toxicological Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0414
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s058dibr.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dibromo-.html>
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol20/volume20.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp36.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dibutyl phenyl phosphate**CAS Number:** 02528-36-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dibutyl phenyl phosphate is acutely and chronically toxic and causes conjunctivitis, burns, irritation to the trachea, nausea and vomiting by inhalation (by ingestion, stomachache, diarrhea, acid intoxication, shock).

Molecular Weight (g/mol): 286.26**Synonyms:** DBPP, Phosphoric acid, Dibutyl phenyl ester**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.3 ppm or 3,512 $\mu\text{g}/\text{m}^3$. Potential significant contribution to the overall exposure by the cutaneous route (skin notation). BEI_A also recommended. Critical effects: irritation, cholinergic.

HSDB: Listed in the Hazardous Substances Data Bank. This compound causes conjunctivitis, burns, irritant to trachea, nausea and vomiting by inhalation, by ingestion, stomachache, diarrhea, acid intoxication, shock.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dibutyl phthalate**CAS Number:** 00084-74-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dibutyl phthalate inhalation causes throat irritation, and irritation to mucous membranes of the respiratory passages. Contact may cause burns to skin and eyes. The compound is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 278.34

Synonyms: 1,2-Benzenedicarboxylic acid dibutyl ester; o-Benzenedicarboxylic acid, dibutyl ester; Benzene-o-dicarboxylic acid di-n-butyl ester; Butylphthalate; Celluflex DPB; Dibutyl 1,2-benzene dicarboxylate; Dibutyl phthalate; Di-n-butylphthalate; Dibutyl-o-phthalate; DPB; Elaol; Ergoplast FDB; Genoplast B; Hexaplast M/B; n-Butylphthalate; Palatinol C; Phthalic acid dibutyl ester; Polycizer DBP; PX 104; RC Plasticizer DBP

U.S. EPA Carcinogenic Classification (IRIS): Health effects data reviewed and deemed inadequate to determine an inhalation RfC at this time; oral RfD available. Class D carcinogen (not classifiable as to human carcinogenicity).

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 mg/m³ or 5,000 µg/m³. Critical effects: reproductive, irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation can cause throat irritation, irritation of mucous membranes of resp passages. Contact may cause burns to skin and eyes.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 0.5 mg/kg/day oral route acute exposure. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0038
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-n-but.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp135.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** 1,4- Dichloro-2-butene,**CAS Number:** 00764-41-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloro-2-butene, 1,4- is acutely and chronically toxic. Inhalation of high concentrations can cause extreme respiratory distress. Irritation of eyes and upper respiratory mucosa appears promptly after exposure. Inhalation of lower concentrations causes central nervous depression and moderate irritation of respiratory system.

Molecular Weight (g/mol): 124.99**Synonyms:** 1,4-Dichloro-2-butene (Technical); 1,4-Dichlorobut-2-ene; 1,4-Dichlorobutene-2; 2-Butene, 1,4-dichloro (mixture of cis and trans)**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.005 ppm or 26 $\mu\text{g}/\text{m}^3$. Suspected human carcinogen (A2). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Critical effects: cancer, irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Inhalation of high concentrations can cause gasping, refusal to breathe, coughing, substernal pain, and extreme respiratory distress. Irritation of eyes and upper respiratory mucosa appears promptly after exposure to vapors. Inhalation of lower concentrations causes central

nervous depression and moderate irritation of respiratory system. Headache is frequent.

International IARC: Listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol15/volume15.pdf>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichloroacetylene**CAS Number:** 07572-29-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloroacetylene is acutely and chronically toxic, and can cause headaches, dizziness, nausea, vomiting, eye irritation, mucous membrane irritation, and neurological disorders such as paresis and neuralgia in several cranial nerves.

Molecular Weight (g/mol): 94.93**Synonyms:** DCA, Dichloroethyne**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** STELTLV (ceiling): 0.1 ppm or 388 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen with unknown relevance to humans (A3). Critical effects include gastrointestinal tract damage or irritation, neurotoxicity, irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Dichloroacetylene can cause headaches, dizziness, nausea, vomiting, eye irritation, mucous membrane irritation, and neurological disorders such as paresis and neuralgia in several cranial nerves.**International IARC:** Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol39/volume39.pdf>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichlorobenzene (para), 1,4-**CAS Number:** 00106-46-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. P-dichlorobenzene is acutely and chronically toxic, vapors are very painful to the eyes and nose, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 147.01

Synonyms: 1,4-Dichloorbenzeen [Dutch]; 1,4-dichlorobenzene; 1,4-Diclorobenzene [Italian]; Benzene, 1,4-dichloro-; Benzene, p-dichloro-; Caswell No. 632; Di-chloricide; Dichlorobenzene, para; EPA Pesticide Chemical Code 061501; Evola; HSDB 523; NCI-C54955; NSC 36935; Paradi; Paradichlorbenzol [German]; Paradichlorobenzene; Paradichlorobenzol; Paradow; Paramoth; Parazene; p-Chlorophenyl chloride; PDB; p-Dichloorbenzeen [Dutch]; p-Dichlorbenzol [German]; p-Dichlorobenzene; p-Dichlorobenzol; p-Diclorobenceno [Spanish]; p-Diclorobenzene [Italian]; Persia-Perazol; RCRA Waste Number u070; RCRA Waste Number u072; Santochlor; UN 1592; Dichlorobenzene

U.S. EPA Carcinogenic Classification (IRIS): Chronic toxicity; Inhalation RfC is 800 $\mu\text{g}/\text{m}^3$. No cancer information available.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 10 ppm or 60,127 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen with unknown relevance to humans (A3). Critical effects: irritation, kidney.

HSDB: Listed in the Hazardous Substances Data Bank. Vapor or fumes of

p-dichlorobenzene are very painful to the eyes and nose.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 120.25 µg/m³ inhalation route chronic exposure. Toxicological Profile is available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0552
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s062dich.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp10.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichlorobenzene, 1,2-**CAS Number:** 00095-50-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichlorobenzene is acutely and chronically toxic, with liver, kidney, and central nervous system effects.

Molecular Weight (g/mol): 147.01

Synonyms: Benzene, 1,2-dichloro-; Benzene, o-dichloro-; Chloroben; Chloroden; Cloroben; DCB; o-Dichlorbenzene; o-Dichlor benzol; o-Dichlorobenzene; 1,2-Dichlorobenzene; o-Dichlorobenzene; Dichlorobenzene, ortho; Dilantin DB; Dilatin DB; Dizene; Dowtherm E; NCI-C54944; ODB; ODCB; Orthodichlorobenzene; Orthodichlorobenzol; Special Termite Fluid; Termitkil; UN 1591; Dichlorobenzene

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time; oral RfD available. Class D classification (not classifiable as to human carcinogenicity).

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed on U.S. Department of Health and Human Services National Toxicology Program (NTP) list.

HAP: Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 25 ppm or 150,317 $\mu\text{g}/\text{m}^3$. TLV STEL: 50 ppm or 300,634 $\mu\text{g}/\text{m}^3$. Not classifiable as a human carcinogen (A4). Critical effects: irritation, liver.

HSDB: Listed in the Hazardous Substances Data Bank. Injurious primarily to the liver and secondarily to kidneys. Short exposures at high concentrations may result in central nervous system depression.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): 0.4 mg/kg/day oral route chronic exposure. Toxicological Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nمبر=0408
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp10.pdf>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichlorobenzidine, 3,3'-**CAS Number:** 00091-94-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichlorobenzidine, 3,3'- is a confirmed animal carcinogen, is acutely or chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 253.13

Synonyms: Benzidine, 3,3'-dichloro-; (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-; C.I. 23060; Curithane C 126; 4,4'-Diamino-3,3'-dichlorobiphenyl; 3,3'-Dichlorbenzidin [Czech]; 3,3'-Dichlorobenzidina [Spanish]; 3,3'-Dichlorobenzidin [Czech]; Dichlorobenzidine; 3,3'-Dichlorobenzidine; Dichlorobenzidine base; o,o'-Dichlorobenzidine; 3,3'-Dichloro-(1,1'-biphenyl)-4,4'-diamine; 3,3'-Dichloro-4,4'-biphenyldiamine; 3,3'-Dichlorobiphenyl-4,4'-diamine; 3,3'-Dichloro-4,4'-diaminobiphenyl; HSDB 1632; NSC 154073; RCRA Waste Number u073

U.S. EPA Carcinogenic Classification (IRIS): Inhalation health effects data reviewed and determined to be inadequate for derivation of inhalation RfC. Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals); based on oral data. Oral slope factor 4.5E-1 mg/kg/day; no inhalation unit risk factor available.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: lowest possible. Confirmed animal carcinogen with unknown relevance to humans (A3). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Critical effects: irritation, dermatitis.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0504
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-benzi.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Department of Health and Human Services. *11th Report on Carcinogens.* National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s063dicb.pdf>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol29/volume29.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/toxprofiles/tp108.html>

Completed by: 5, 1, 1

Date: 8/23/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichlorodiphenyl trichloroethane, p,p'- (DDT)**CAS Number:** 00050-29-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. DDT is listed by U.S. EPA as a Persistent, Bioaccumulative and Toxic (PBT) compound, is a carcinogen, and has acute and chronic toxic effects.

Molecular Weight (g/mol): 354.50

Synonyms: Agritan; Anofex; Arkotine; Azotox; Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro-); alpha,alpha-Bis(p-chlorophenyl)-beta,beta,beta-trichlorethane; 1,1-Bis-(p-chlorophenyl)-2,2,2-trichloroethane; 2,2-Bis(p-chlorophenyl)-1,1,1-trichloroethane; Bosan Supra; Bovidermol; Chlorophenothan; Chlorophenothane; Chlorophenotoxum; Citox; Clofenotane; DDT; p,p'-DDT; Dedelo; Deoval; Detox; Detoxan; Dibovan; Dichlorodiphenyltrichloroethane; 4,4'-Dichlorodiphenyl-trichloroethane; Dichlorodiphenyltrichloroethane, p,p'-; Dicophane; Didigam; Didimac; Diphenyltrichloroethane; Dodat; Dykol; ENT 1,506; Estonate; Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-; Genitox; Gesafid; Gesapon; Gesarex; Gesarol; Guesapon; Guesarol; Gyron; Haverro-Extra; Hildit; Ivoran; Ixodex; Kopsol; Micro DDT 75; Mutoxin; NA 2761; NCI-C00464; Neocid; Parachlorocidum; PEB1; Pentachlorin; Pentech; Ppzeidan; R50; RCRA Waste Number u061; Rukseam; Santobane; Tech DDT; 1,1,1-Trichloro-2,2-bis(4-chloro phenyl)-ethane; 1,1,1-Trichloro-2,2-bis(4-chloro-phenyl)-aethan; 1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane; Trichlorobis(4-chlorophenyl)ethane; 1,1,1-Trichloro-2,2-di(4-chlorophenyl)-ethane; 1,1,1-Trichloro-2,2-bis(4-chloro-fenil)-etano; Zeidane; Zerdane; Dichlorodiphenyltrichloroethane (DDT)

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time; oral RfD available. Class B2- probable human carcinogen (based on sufficient evidence of carcinogenicity in animals); inhalation unit risk factor is 9.7E-2 µg/m³.

PBT: Listed as a PBT action plan chemical.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 1 mg/m³ or 1,000 µg/m³. Confirmed animal carcinogen (A3). Critical effects include seizures and liver damage.

HSDB: Listed in the Hazardous Substances Data Bank. DDT is an eye irritant.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 0.0005 mg/kg/day oral route intermediate exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0147
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/cheminfo.htm>
<http://www.epa.gov/opptintr/pbt/pubs/ddt.htm>
3. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP) <http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s064ddt.pdf>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD. <http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol53/volume53.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp35.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichloroethane, 1,1-**CAS Number:** 00075-34-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloroethane, 1,1- is acutely and chronically toxic, causing liver, kidney effects, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 98.97

Synonyms: Aethylidenchlorid [German]; Chlorinated hydrochloric ether; Chlorure d'ethylidene [French]; Cloruro di etilidene [Italian]; 1,1-Dichloorethaan [Dutch]; 1,1-Dichloraethan [German]; Dichloro-1,1 ethane [French]; 1,1-Dichloroethane; 1,1-Dicloroetano [Italian]; 1,1-Dicloroetano [Spanish]; Ethane, 1,1-dichloro-; Ethylidene chloride; Ethylidene dichloride; HSDB 64; NCI-C04535; RCRA Waste Number u076; UN 2362; Dichloroethane

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC or oral RfD available at this time. Class C- possible human carcinogen.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 100 ppm or 404,785 $\mu\text{g}/\text{m}^3$. Not classifiable as a human carcinogen (A4). Critical effects include liver damage, kidney damage, and irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure to this compound can cause salivation, sneezing, and coughing.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0409
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dichloro.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/toxprofiles/tp133.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichloroethyl ether**CAS Number:** 00111-44-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloroethyl ether is a carcinogen, is acutely and chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 143.02

Synonyms: BCEE; beta,beta'-Dichloroethyl ether; Bis(chloroethyl)ether; Bis(2-chloroethyl) ether; Bis(beta-chloroethyl) ether; Chlorex; 1-Chloro-2-(beta-chloroethoxy)ethane; Chloroethyl ether; Clorex; DCEE; 2,2'-Dichloorethylether; 2,2'-Dichlor-diaethylaether; 2,2'-Dichlorethyl ether; beta,beta-Dichlorodiethyl ether; Dichloroether; Di(2-chloroethyl) ether; 2,2'-Dichloroethyl ether; Di(beta-chloroethyl)ether; sym-Dichloroethyl ether; Dichloroethyl oxide; 2,2'-Dichloroetiletere; Dwuchlorodwuetylowy eter; ENT 4,504; Ethane, 1,1'-oxybis(2-chloro-; Ether, bis(2-chloroethyl); Ether dichlore; 1,1'-Oxybis(2-chloro)ethane; Oxyde de chlorethyle; RCRA Waste Number u025; UN 1916; Bis(chloroethyl)ether (BCEE)

U.S. EPA Carcinogenic Classification (IRIS): Health effects data reviewed and determined to be inadequate for derivation of an inhalation RfC (currently not verifiable). Class B2- probable human carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is $3.3E-4 \mu\text{g}/\text{m}^3$.

PBT: Not listed on the U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 5 ppm or $29,247 \mu\text{g}/\text{m}^3$. TLV STEL: 10 ppm or $58,495 \mu\text{g}/\text{m}^3$. Not classifiable as a human carcinogen (A4). Potential significant contribution to the overall

exposure by the cutaneous route (skin notation). Critical effects: irritation, lung.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not classifiable as carcinogenic to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nمبر=0137
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chl-ethe.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol9/volume9.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichloromethane (methylene chloride)**CAS Number:** 00075-09-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloromethane is carcinogenic, causes central nervous system effects, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 84.93

Synonyms: Aerothene MM; Chlorure de methylene; DCM; Dichlormethan, uvasol; Dichloromethane; 1,1-Dichloromethane.; Freon 30; Methane dichloride; Methane,; dichloro-; Methylene bichloride; Methylene chloride; Methylene dichloride; Metylenu chlorek; Narkotil; NCI-C50102; R 30; Solaesthin; Solmethine; WLN: G1G

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time. Oral RfD available. Class B2- probable human carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is $4.7E-7 \mu\text{g}/\text{m}^3$.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed by U.S. EPA Hazardous Air Pollutant (HAP) and the Health Effects Notebook.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 50 ppm or $173,681 \mu\text{g}/\text{m}^3$. Confirmed animal carcinogen with unknown relevance to humans (A3). BEI also recommended. Critical effects: central nervous system effects, anoxia.

HSDB: Listed in the Hazardous Substances Data Bank. Causes central nervous system effects.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0070
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s066dich.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/methylen.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichloropropene, 1,3- (technical grade)**CAS Number:** 00542-75-6

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichloropropene, 1,3- is carcinogenic, is acutely and chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 110.98

Synonyms: 3-Chloroallyl chloride; alpha-Chloroallyl chloride; gamma-Chloroallyl chloride; 3-Chloropropenyl chloride; DCP; Dichloropropene; 1,3-Dichloropropene-1; 1,3-Dichloropropene; 1,3-Dichloro-2-propene; Dichloropropene, 1,3-; 1,3-Dichloropropylene; alpha,gamma-Dichloropropylene; NCI-C03985; Propene, 1,3-dichloro-; RCRA Waste Number u084; Telone II; Dichloropropene

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 20 $\mu\text{g}/\text{m}^3$. Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is 4.0E-6 $\mu\text{g}/\text{m}^3$.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed by U.S. EPA Hazardous Air Pollutant (HAP).

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 1 ppm or 4,539 $\mu\text{g}/\text{m}^3$. Not classifiable as to carcinogenicity to humans (A3). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Critical effect: irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Causes irritation of the eyes and the upper respiratory mucosa appears promptly after exposure.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 9.08 µg/m³ inhalation route chronic exposure. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0224
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s067dich.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dichl-pe.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol41/volume41.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp40.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dichlorvos (DDVP)**CAS Number:** 00062-73-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dichlorvos (DDVP) is carcinogenic, has acute and chronic toxic effects, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 220.98

Synonyms: Astrobot; Atgard V; Bibesol; Brevinyl E50; Brevinyl Weedat 0002; Cekusan; Chlorvinphos; Cyanophos; Dede vap; Derribante; 2,2-Dichloroethenyl phosphate; 2,2-Dichloroethenyl phosphoric acid dimethyl ester; Dichlorovas; 2,2-Dichlorovinyl dimethyl phosphate; Dichlorphos; Dimethyl dichlorovinyl phosphate; Dimethyl 2,2-dichlorovinyl phosphate; Divipan; ENT 20738; Equigard; Equigel; Estrosel; Ethenol, 2,2-dichloro-, dimethyl phosphate; Fecama; Fly-Die; Fly Fighter; Herkal; Herkol; Krecalvin; Mafu; Marvex; Mopari UN NA 2783; NCI-C00113; Nerkol; Nogos; Nogos 50; Nogos G; No-Pest Strip; NSC-6738; Nuva; Nuvan; Nuvan 100 EC; OKO; OMS 14; o,o-Dimethyl dichlorovinyl phosphate; o,o-Dimethyl o-2,2-dichlorovinyl phosphate; Phosphoric acid, 2,2-dichloroethenyl dimethyl ester; Phosphoric acid, 2,2-dichlorovinyl dimethyl ester; Phosvit; SD1750; Szklarniak; TAP 9VP; Task; Task Tabs; Tenac; UDFV; Unifos; Unifos 50 EC; Vapona; Vapona II; Aapona insecticide; Vaponite; Verdican; Verdipor; Vinyl alcohol, 2,2-dichloro-, dimethyl phosphate; Vinylophos; Atgard; Bay-19149; Brevinyl; Canogard; Celcusan; DDVF; DDVP; Deriban; Dichlorman; Dichlorophos; Dichlorovos; Dimethyl 2,2-dichloroethenyl phosphate; Estrosol

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 0.5 $\mu\text{g}/\text{m}^3$; oral RfD also available. Class B2- probable human carcinogen (based on sufficient evidence of carcinogenicity in animals). Oral slope factor is 2.9E-1 mg/kg/day; no carcinogenic inhalation information available.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 0.1 mg/m³ or 100 µg/m³. Not classifiable as a human carcinogen (A4). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Potential for agent to produce sensitization (SEN notation). BEI_A also recommended. Critical effect: cholinergic.

HSDB: Listed in the Hazardous Substances Data Bank. Dichlorvos is a cholinesterase inhibitor.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 0.54 µg/m³ inhalation route chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0151
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Affects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dichlorv.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol53/volume53.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp88.html>

Completed by: 5, 1, 1

Date: 8/16/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dieldrin**CAS Number:** 00060-57-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dieldrin is carcinogenic, listed as a Persistent, Bioaccumulative and Toxic (PBT) compound by U.S. EPA, and both acutely and chronically toxic.

Molecular Weight (g/mol): 380.93

Synonyms: Alvit; Compound 497; Dioldrex; Dieldrin; Dioldrine; Dioldrite; 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro, endo,exo-; ENT 16,225; Heod; Hexachloroepoxyoctahydro-endo,exo-dimethanonaphthalene 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-Octahydro-2,7:3,6-dimethanonaphth(2,3-b)oxirene; Illoxol; NA 2761; NCI-C00124; Octalox; Panoram D-31; Quintox; RCRA Waste Number p037

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time; oral RfD available. Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is $4.6E-3 \mu\text{g}/\text{m}^3$.

PBT: Listed as a PBT action plan chemical.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Not listed on U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: $0.25 \text{ mg}/\text{m}^3$ or $250 \mu\text{g}/\text{m}^3$. Not classifiable as a human carcinogen (A4). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Critical effects: liver and central nervous system damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): 5E-06 mg/kg/day oral route chronic exposure. Toxicological Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0225
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/cheminfo.htm>
<http://www.epa.gov/opptintr/pbt/pubs/ddt.htm>
<http://www.epa.gov/glnpo/bns/levelii/leviisubsus.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system. Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol5/volume5.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances and Toxicological Profiles. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp1.html>

Completed by: 5, 1, 1

Date: 08/17/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** Diethanolamine**CAS Number:** 00111-42-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diethanolamine is acutely and chronically toxic, causing damage to the liver, kidneys, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight (g/mol): 105.14

Synonyms: 2,2'-Iminobisethanol; Diethylamine; Bis(2-hydroxyethyl)amine; DEA; Diolamine; N,N-Diethanolamine; Bis(hydroxyethyl)amine; 2,2'-Dihydroxydiethylamine; Iminodiethanol

U.S. EPA Carcinogenic Classification (IRIS): Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.

PBT: Not listed on U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program list.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: On U.S. EPA Hazardous Air Pollutant (HAP) list.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 2 mg/m³ or 2,000 µg/m³. Potential significant contribution to the overall exposure by the cutaneous route (skin notation). Critical effects: damage to liver, kidney, blood.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/diethano.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. U.S. Department of Health and Human Services. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
Bethesda, MD.
<http://toxnet.nlm.nih.gov>.
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol77/volume77.pdf>

Completed by: 5, 1, 1

Date: 8/17/06, 8/24/06, 9/9/06

Toxic Compound Data Sheet**Name:** n,n-Diethyl Aniline**CAS Number:** 00091-66-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. N,n-Diethyl Aniline is acutely and chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 149.24 g/mol**Synonyms:** N,N-Diethylbenzenamine, DEA, N,N-Diethylaminobenzene, Diethylaniline, Diethylphenylamine, Phenyl-diethylamine, N-Phenyl-diethylamine**U.S. EPA Carcinogenic Classification (IRIS):** Agent has not undergone a complete evaluation.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** Not listed by ACGIH.**HSDB:** Listed in the Hazardous Substances Data Bank. Poisoning may occur through inhalation of vapors.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
2. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol57/volume57.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>

Completed by: 5, 1

Date: 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Diethyl Sulfate

CAS Number: 00064-67-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diethyl Sulfate is acutely or chronically toxic, a potential carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 154.19 g/mol

Synonyms: Diethyl sulfate; Diethylsulfate; AI3-15355; CCRIS 242; Diaethylsulfat; Diethylester kyseliny sirove; DS; Ethyl sulfate; HSDB 1636; Sulfato de dietilo; Sulfuric acid, Diethyl ester; Diethyl sulphate; Sulfate de diethyle; Diethyl sulfate

U.S. EPA Carcinogenic Classification (IRIS): Agent has not undergone a complete evaluation.

PBT: Not listed as persistent, bioaccumulative and toxic (PBT).

NTP: Listed as reasonably anticipated to be a human carcinogen by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank. This compound is a skin, eye and respiratory irritant, producing inflammation of the eyes and upper airway, vesication of skin, causing severe eye and skin burns.

International IARC: Group 2A; probably carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s070diet.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/diethyls.html>
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol54/volume54.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Diethylene Triamine

CAS Number: 00111-40-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diethylene Triamine is acutely or chronically toxic, causing eye and pulmonary effects.

Molecular Weight: 103.17 g/mol

Synonyms: DETA; 2,2-Diaminodiethylamine; 2,2-Imino(ethylamine)

U.S. EPA Carcinogenic Classification (IRIS): Not Listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 1 ppm or 4,220 ug/m³.

HSDB: Listed in the Hazardous Substances Data Bank. This compound may cause severe corneal injury and pulmonary and cutaneous sensitization in humans.

International IARC: Not listed as an Agent Reviewed by IARC

ATSDR, MRL: Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2005. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 08/17/86, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dimethoxybenzidine, 3,3- (dianisidine, ortho-)

CAS Number: 00119-90-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethoxybenzidine, 3,3- is acutely or chronically toxic causing nose and throat irritation. This compound is listed as a HAP (hazardous air pollutant) by U.S. EPA.

Molecular Weight: 244.30 g/mol

Synonyms: None

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as reasonably anticipated to be a human carcinogen (Part B) by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank. Critical effects: nose and throat irritation

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s073dmob.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dimet-ox.html>
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dimethyl Aminoazobenzene, 4- (or para-)

CAS Number: 00060-11-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethyl Aminoazobenzene, 4- (or para-) is carcinogenic and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 225.28 g/mol

Synonyms: None

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as reasonably anticipated to be a human carcinogen by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s074dime.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-benze.html>
3. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol8/volume8.pdf>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dimethyl Benzidine, 3, 3- (dianisidine, *ortho*-)

CAS Number: 00119-93-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethyl Benzidine, 3, 3- is a carcinogen and is listed as a hazardous air pollutant (HAP) by U.S. EPA.

Molecular Weight: 212.29 g/mol

Synonyms: Benzidine, 3,3'-dimethyl-; Dianisidine; C.I. Azoic Diazo Component 113; C.I. 37230; Diaminoditoyl; Fast Dark Blue Base R; HSDB 1640; o-Tolidin; o-Tolidine; Orthotolidine; RCRA Waste Number u095; 2-Tolidina; 2-Tolidine; 3,3'-Dimethyl-(1,1'-biphenyl)-4,4'-diamine; 3,3'-Dimethyl-4,4'-biphenyldiamine; 3,3'-Dimethyl-4,4'-diphenyldiamine; 3,3'-Dimethylbenzidin; 3,3'-Dimethylbenzidine; 3,3'-Dimethylbiphenyl-4,4'-diamine; 3,3'-Dimethyldiphenyl-4,4'-diamine; 3,3'-Tolidine; 4,4'-Bi-o-toluidine; 4,4'-Diamino-3,3'-dimethylbiphenyl; 4,4'-Diamino-3,3'-dimethyldiphenyl; (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-; o,o'-Tolidine; 2-Tolidin; 3,3'-Dimethyl-4,4'-diaminobiphenyl; 4,4'-Di-o-toluidine; Dimethylbenzidine

U.S. EPA Carcinogenic Classification (IRIS): Agent has not undergone a complete evaluation.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as reasonably anticipated to be a human carcinogen by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank. Skin and eye irritant.

International IARC: Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0538.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s075dmb.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dimet-be.html>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol1/volume1.pdf>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dimethyl Carbamoyl Chloride

CAS Number: 00079-44-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethyl carbamoyl chloride is potentially carcinogenic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 107.54 g/mol

Synonyms: Chloroformic acid dimethylamide; Dimethylcarbamic chloride; Dimethylcarbamyl chloride; DMCC

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed as reasonably anticipated to be a human carcinogen by the national toxicology program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA, lowest; A2 suspected human carcinogen.

International IARC: Group 2A; probably carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s076dime.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-carbo.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol12/volume12.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dimethyl Sulfate**CAS Number:** 00077-78-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethyl Sulfate is carcinogenic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 126.10 g/mol**Synonyms:** Dimethyl monosulfate; Dimethyl sulfate; DMS; Methyl sulfate**U.S. EPA Carcinogenic Classification (IRIS):** B2; probable human carcinogen.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as reasonably anticipated to be a human carcinogen by the National Toxicology Program (NTP).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.1 ppm or 516 ug/m³.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 2A; probably carcinogenic to humans.**ATSDR, MRL:** Not available.**Reference Material**

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0365.htm>

2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s078dime.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-sulfa.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol4/volume4.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dimethylaniline (N,N-dimethylaniline)

CAS Number: 00121-69-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethylaniline exposure can cause headaches, cyanosis, dizziness, labored breathing, paralysis and convulsions. Dimethylaniline is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 121.18 g/mol

Synonyms: Aniline, N,N-dimethyl-; Benzenamine, N,N,-dimethyl-; Dimethylaniline; (Dimethylamino)benzene; Dimethylaniline; Dimethylaniline, N-N-; Dimethylphenylamine; Dwumetyloanilina; NCI-C56428; N-N-Dimethylaniline; N,N-Dimethylbenzeneamine; N,N-Dimethylphenylamine; UN 2253

U.S. EPA Carcinogenic Classification (IRIS): Listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 5ppm or 24,781 ug/m³; A4- not classifiable as a human carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure can cause headaches, cyanosis, dizziness, labored breathing, paralysis, and convulsions.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS).
<http://www.epa.gov/iris/subst/0229.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dime-lin.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dimethylformamide, n,n-**CAS Number:** 00068-12-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethylformamide, n,n- is listed by U.S. EPA as a Hazardous Air Pollutant (HAP), and is acutely or chronically toxic.

Molecular Weight: 73.09 g/mol

Synonyms: Dimethylamid kyseliny mravenci; Dimethylformamid; Dimethyl formamide; Dimetilformamide; Dimetylformamidu; DMF; DMFA; Dwumetyloformamid; Formamide, N,N-dimethyl-; HSDB 78; NCI-C60913; N-Formyldimethylamine; N,N-Dimethyl formamide; N,N-Dimethylformamide; N,N-Dimethylmethanamide; NSC 5356; U-4224; UN 2265; 123-31-9; Caswell No. 366A; Dimethylformamide; DMF; EPA Pesticide Chemical Code 366200; N,N-Dimetilformamida

U.S. EPA Carcinogenic Classification (IRIS): Digestive disturbances and minimal hepatic changes suggestive of liver abnormalities; RfC 3×10^{-2} mg/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 10 ppm or 29,894 ug/m³; A4 not classifiable.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 3; not classifiable as carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0511.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-forma.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol47/volume47.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dimethylhydrazine, 1,1-**CAS Number:** 00057-14-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethylhydrazine, 1,1- is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA, and is carcinogenic.

Molecular Weight: 60.12 g/mol**Synonyms:** N, N-Dimethylhydrazine; unsymmetrical-Dimethylhydrazine; UDMH**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not Listed as persistent, bioaccumulative and toxic.**NTP:** Listed as reasonably anticipated to be a human carcinogen by the National Toxicology Program.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 15,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.01 ppm or 25 ug/m³; A3- confirmed animal carcinogen.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 2B; possibly carcinogenic to humans.**ATSDR, MRL:** Inhalation, intermediate 0.49 ug/m³. Toxicity Profile available.**Reference Material**

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s077umdh.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dimethyl.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol4/volume4.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp100.html>

Completed by: 5, 1, 1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dimethylphthalate**CAS Number:** 00131-11-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dimethylphthalate is acutely or chronically toxic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 194.19 g/mol

Synonyms: 1,2-Benzenedicarboxylic acid, Dimethyl ester; Dimethyl 1,2-Benzenedicarboxylate; Dimethyl benzene-o-dicarboxylate; Dimethyl phthalate; DMP; Phthalic acid, Dimethyl ester; Methyl phthalate

U.S. EPA Carcinogenic Classification (IRIS): D- not classifiable as carcinogenic to humans.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 5,000 ug/m³.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dimet-ph.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1,1.

Date: 08/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** meta-Dinitrobenzene**CAS Number:** 00099-65-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Meta-dinitrobenzene is acutely toxic and causes central nervous system effects and irritation.

Molecular Weight: 168.11

Synonyms: 1,3-dinitro- Benzene, m-dinitro- Benzene, Binitrobenzene, 1,3-Dinitrobenzene, 2,4-Dinitrobenzene, m-Dinitrobenzene, 1,3-Dinitrobenzol, Dwunitrobenzen, UN 1597, Dinitrobenzene

U.S. EPA Carcinogenic Classification (IRIS): D - not classifiable as carcinogenic to humans.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 0.15 ppm or 1,031 ug/m³. This compound is associated with central nervous system effects and irritation.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0318
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5,1,1

Date: 8/17/06, 8/25/06, 9/10/06

Toxic Compound Data Sheet**Name:** Dinitrobenzene, ortho-**CAS Number:** 00528-29-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ortho-dinitrobenzene is acutely toxic and causes central nervous system effects and eye irritation.

Molecular Weight: 168.11 g/mol**Synonyms:** 1,2-Dinitrobenzene; 1,2-DNB**U.S. EPA Carcinogenic Classification (IRIS):** D - not classifiable as carcinogenic to humans.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.15 ppm or 1,031 ug/m³. This compound causes eye damage.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is associated with central nervous system effects and irritation.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0633
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5,1,1

Date: 8/17/06, 8/25/06, 9/10/06

Toxic Compound Data Sheet**Name:** para-Dinitrobenzene**CAS Number:** 00100-255-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Para-dinitrobenzene is acutely and chronically toxic and causes central nervous system effects and irritation.

Molecular Weight: 168.11 g/mol**Synonyms:** None**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.15 ppm or 1031 ug/m³. Critical effects include central nervous system damage and irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Exposure causes headache, and other central nervous effects.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5,1,1,

Date: 8/23/06, 8/25/06, 9/10/06

Toxic Compound Data Sheet**Name:** Dinitrobenzene**CAS Number:** 25154-54-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dinitrobenzene (all isomers) are acutely and chronically toxic, causing skin, blood (anemia) and eye damage, and liver damage.

Molecular Weight(g/mol): 168.11**Synonyms:** Dinitrobenzene (all isomers); Dinitrobenzene (mixed isomers)**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV: 0.15 ppm or 1,031 ug/m³. This compound is associated with skin, BEI, blood, and eye damage, anemia, and liver damage.**HSDB:** Listed in the Hazardous Substances Data Bank. Dinitrobenzene has been shown to cause methemoglobinemia.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 3, 1

Date: 9/10/06, 9/13/06

Toxic Compound Data Sheet**Name:** Dinitro-o-cresol, 4,6-, & salts**CAS Number:** 00534-52-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dinitro-o-cresol, 4,6-, & salts are acutely or chronically toxic, and are listed as Hazardous Air Pollutants (HAPs) by U.S. EPA.

Molecular Weight: 198.13 g/mol**Synonyms:** 4,6-Dinitro-o-cresol; DNOC; 2-Methyl-4,6-dinitrophenol**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 200 ug/m³.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Oral, intermediate 0.004 mg/kg/day.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-creso.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp63.html>

Completed by: 5,1,1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet

Name: Dinitrophenol, 2, 4-

CAS Number: 00051-28-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dinitrophenol, 2, 4- is acutely or chronically toxic and is listed as a hazardous air pollutant (HAP) by U.S. EPA.

Molecular Weight: 184.11 g/mol

Synonyms: Aldifen; Chemox Pe; 2,4-dinitrofenol; Dinitrofenolo; 2,4-dinitrophenol; Dinitrophenol, 2,4-; Alpha-dinitrophenol; 2,4-dnp; Fenoxyl Carbon N; 1-hydroxy-2,4-dinitrobenzene; Maroxol-50; Nitro Kleenup; Nsc 1532; Phenol, 2,4-dinitro-; Phenol, Alpha-dinitro-; Rcra Waste Number P048; Solfo Black 2b Supra; Solfo Black B; Solfo Black Bb; Solfo Black G; Solfo Black Sb; Tertrosulphur Black Pb; Tertrosulphur PBR

U.S. EPA Carcinogenic Classification (IRIS): Reference concentration for chronic inhalation exposure information available.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Oral, acute; 0.01 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0152.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dinitrop.html>
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp64.html>

Completed by: 5,1,1

Date: 8/17/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Dinitrotoluene, 2,4-**CAS Number:** 00121-14-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dinitrotoluene, 2,4- is specifically listed because it acutely or chronically toxic, causing hemoglobin damage, liver damage and central nervous system effects. 2,4-Dinitrotoluene is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 182.14 g/mol

Synonyms: Benzene, 1-methyl-2,4-dinitro-; 2,4-Dinitrotoluene; 2,4-DNT; 1-Methyl-2,4-dinitrobenzene; Toluene, 2,4-dinitro-; 2,4-Dinitrotoluol; Dinitrotoluene

U.S. EPA Carcinogenic Classification (IRIS): Reference concentration for chronic inhalation exposure information available.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Oral, acute; 0.01 mg/kg/day.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0524.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dini-lue.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol65/volume65.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp109.html>

Completed by: 5,1,1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** 1,4- Dioxane (1,4-Diethyleneoxide)**CAS Number:** 123-91-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dioxane is chronically toxic as a carcinogen and acutely toxic, causing central nervous system depression, pulmonary edema and death. Renal and hepatic injury can also occur after exposure. Dioxane is highly toxic by inhalation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 88.10 g/mol**Synonyms:** Diethylene Dioxide; Diethylene Oxide; 1,4-dioxane; 1,4- Dioxane; P-Dioxane**U.S. EPA Carcinogenic Classification (IRIS):** Listed in IRIS, B2 carcinogen for nasal cavity squamous cell carcinomas, gall bladder carcinomas and liver hepatomas.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as reasonably anticipated to be a human carcinogen (Part B).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 20 ppm or 72,065 ug/m³; A3 Animal Carcinogen.**HSDB:** Listed in the Hazardous Substances Data Bank. Exposure can cause central nervous system depression, pulmonary edema and death. Renal and hepatic injury occurs after exposure. Dioxane is an acute health hazard and is highly toxic by inhalation.**International IARC:** Group 2B; possibly carcinogenic to humans.**ATSDR, MRL:** Inhalation, chronic; 3606.27 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0326.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s080diox.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/dioxane.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol11/volume11.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp187.html>

Completed by: 5, 1, 1,

Date: 8/16/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet

Name: Dioxathion

CAS Number: 00078-34-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Dioxathion is acutely and chronically toxic, and can cause cholinesterase inhibition, nausea, vomiting, abdominal cramps, diarrhea, and headache.

Molecular Weight: 456.54 g/mol

Synonyms: Delnav, 2,3-p-Dioxanedithion S,S-bis-(O,O-diethyl phosphorodithioate); Hercules AC528; Navadel

U.S. EPA Carcinogenic Classification (IRIS): Not listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 100 ug/m³; A4- not classifiable as a human carcinogen. Critical effect is cholinesterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation causes nausea, vomiting, abdominal cramps, diarrhea, excessive salivation, headache, giddiness, and vertigo.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** 1,3 - Dioxolane**CAS Number:** 00646-06-0**Molecular Weight:** 274.08 g/mol

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. This compound is acutely and chronically toxic, and causes toxic blood effects.

Synonyms: None.**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 20 ppm or 224,196 ug/m³. This compound is associated with blood effects.**HSDB:** Listed in the Hazardous Substances Data Bank. Listed as toxic by inhalation and ingestion.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 3, 1

Date: 9/10/06, 9/12/06

Toxic Compound Data Sheet**Name:** Diphenylamine**CAS Number:** 00122-39-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Diphenylamine is acutely and chronically toxic and causes liver and kidney damage, and hematologic effects. Exposure may irritate the skin, eyes, and mucous membranes and may produce methemoglobinemia or urinary symptoms in humans.

Molecular Weight: 169.24 g/mol

Synonyms: N-phenyl- Aniline; Anilinobenzene; N-phenyl- Benzenamine; anilino-Benzene; (phenylamino)- Benzene; Big Dipper; C.I. 10355; DFA; Diphenylamine; DPA; N,N-Diphenylamine; No Scald; N-Phenylaniline; N-Phenylbenzenamine; Scaldip

U.S. EPA Carcinogenic Classification (IRIS): Listed in IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 10,000 ug/m³; A4- not classifiable as a human carcinogen. Critical effects include liver and kidney damage, and hematologic effects.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure may irritate the skin, eyes, and mucous membranes and may produce methemoglobinemia or urinary symptoms in humans.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0048.htm>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** 1,2-Diphenylhydrazine**CAS Number:** 00122-66-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Exposure to 1,2-diphenylhydrazine causes urinary tract tumors in humans, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 184.24 g/mol

Synonyms: Hydrazodibenzene; (sym)-Dihpenylhydrazine; 1,2-Diphenylhydrazine; 1,2-Diphenylhydrazine; 1,2-Dihpenylhydrazine; Hydrazobenzene; NCI-C01854; N,N'-bianiline; RCRA waste number U109

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; quantitative estimate of carcinogenic risk from inhalation exposure: inhalation unit risk -- 2.2E-4 per (ug/cu.m).

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: Not listed by ACGIH.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure causes tumors in the urinary system, as well as skin and eye irritation.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Toxicity profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0049.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/diph-zin.html>
3. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/toxprofiles/tp136.html>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 1, 1

Date: 8/16/06, 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Epichlorohydrin**CAS Number:** 106-89-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Epichlorohydrin is specifically listed because it is acutely or chronically toxic, causing respiratory irritation and kidney damage, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: (g/mol) 92.52**Synonyms:** -Chlor-2,3-epoxypropane; γ -Chloropropyleneoxide; Epichlorhydrin; Chloromethyloxirane; 2-Chloropropylene oxide

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is $1.0 \mu\text{g}/\text{m}^3$. Oral RfD withdrawn. Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation unit risk factor is $1.2\text{E-}6 \mu\text{g}/\text{m}^3$.

PBT: Not listed as persistent, bioaccumulative and toxic.**NTP:** Reasonably anticipated to be a human carcinogen (Part B).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 20,000 lbs.

ACGIH: TLV: 0.5 ppm or $1,892 \mu\text{g}/\text{m}^3$. This compound is a confirmed animal carcinogen. Critical effects include respiratory irritation and reproductive effects.

HSDB: Listed in the Hazardous Substances Data Bank. Acute poisoning may lead to respiratory paralysis and death; chronic poisoning may lead to kidney damage. Exposure may also cause inflammation of the eyes and lungs.

International IARC: Probably carcinogenic to humans (Group 2A).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0050
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s082epic.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/epichlor.html>
4. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
5. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
6. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
7. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol11/volume11.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 2, 1

Date: 8/25/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethyl acrylate**CAS Number:** 140-88-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. 2- Ethoxyethanol, is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment, respiratory, eye and skin irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: (g/mol): 100.11**Synonyms:** Ethyl-2-propenoate, Ethyl propenate, Acrylic acid ethyl ester, Ethoxycarbonyl, Ethylene**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed as Persistent, Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 5 ppm or 20,472 $\mu\text{g}/\text{m}^3$. TLV STEL: 15 ppm or 61,417 $\mu\text{g}/\text{m}^3$. Critical effects include: Respiratory and gastrointestinal irritation, central nervous system impairment, eye irritation, and skin sensitivity.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Possibly carcinogenic to humans (Group 2B).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethylacr.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol39/volume39.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethyl benzene**CAS Number:** 100-41-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylbenzene is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment, eye and skin irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 106.16 (g/mol):

Synonyms: Benzene, ethyl; EB; Ethylbenzeen; Ethylbenzol; Etilbenzene; Phenylethane; UN 1175; Aethylbenzol; Ethylbenzene; Etylobenzen; NCI-C56393

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 1,000 $\mu\text{g}/\text{m}^3$. Oral RfD also available. Class D: not classifiable as to human carcinogenicity.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 100 ppm or 434,192 $\mu\text{g}/\text{m}^3$. TLV STEL: 125 ppm or 542,740 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen (A3). Critical effects include: Central nervous system impairment and respiratory and eye irritation..

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 4,341.92 $\mu\text{g}/\text{m}^3$ inhalation route intermediate exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0051
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethylben.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol77/volume77.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp110.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethyl carbamate (urethane)**CAS Number:** 51-79-6

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethyl carbamate is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: not listed (g/mol):

Synonyms: Carbamic acid, ethyl ester; Aethylcarbamate [German]; Aethylurethan [German]; AI3-00553; Carbamidsaeure-aethylester [German]; CCRIS 619; Ethyl urethaneethylester kyseliny karbaminove [Czech]; Ethylurethan; HSDB 2555; Leucethane; Leucothane; NSC 746; o-Ethylurethane; Pracarbamin; Pracarbamine; RCRA Waste Number u238; Uretan etylowy [Polish]; Uretano; Urethan; Urethane; Urethanum [Latin]

U.S. EPA Carcinogenic Classification (IRIS): Data determined to be inadequate for the derivation of an inhalation RfC.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: (Under urethane): reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: Not listed in American Conference of Governmental Industrial Hygienists (ACGIH) 2006 TLV and BEI indices.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: (Under urethane): possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0629
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s184uret.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethylcar.html>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol7/volume7.pdf>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethyl chloride (chloroethane)**CAS Number:** 75-00-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethyl chloride is specifically listed because it is acutely and chronically toxic, causing central nervous system impairment; liver and kidney damage, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight:64.52 (g/mol):

Synonyms: Ethane, chloro-; Aethylchlorid [German]; Aethylis; Aethylis chloridum; Anodynon; Chelen; Chloorethaan [Dutch]; Chlorene; Chlorethyl; Chloridum; Chloroethan [German]; Chloroethane; Chlorure d'ethyle [French]; Chloryl; Chloryl anesthetic; Cloretilo; Cloroetano [Italian]; Cloruro de etilo [Spanish]; Cloruro di etile [Italian]; Dublofix; Ethane, chloro-; Ether chloratus; Ether hydrochloric; Ether muriatic; Ethyl chloride; Etylu chlorek [Polish]; HSDB 533; Hydrochloric ether; Kelene; Monochlorethane; Monochloroethane; Muriatic ether; Narcotile; NCI-C06224; NCI-C06224; UN 1037

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC is 10,000 $\mu\text{g}/\text{m}^3$.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 10,000 lbs.**ACGIH:** TLV: 100 ppm or 263,885 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen. Critical effects include skin irritation or damage and liver damage.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is associated with kidney and liver damage and central nervous system effects.

International IARC: (Under chloroethane): not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0523
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/chloroet.html>
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act.* EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.* Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol52/volume52.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/toxprofiles/tp105.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethyl mercaptan**CAS Number:** 75-08-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethyl mercaptan is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment eye, skin and respiratory irritation.

Molecular Weight: 62.13 (g/mol):**Synonyms:** Ethyl sulfhydrate, Mercaptoethane, Ethyl mercaptan**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 10,000 lbs.**ACGIH:** TLV: 0.5 ppm or 1,271 $\mu\text{g}/\text{m}^3$. Critical effects include central nervous system impairment and respiratory irritation (mucous membrane).**HSDB:** Listed in the Hazardous Substances Data Bank. This compound causes central nervous system impairment, eye and skin irritation or damage, and respiratory irritation.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene chlorhydrin**CAS Number:** 107-07-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethyl butyl ketone is specifically listed because it is acutely or chronically toxic, causing central nervous system impairment skin, liver, and kidney damage.

Molecular Weight: 80.52 (g/mol):**Synonyms:** 2-Chloroethyl alcohol, Ethylene chlorhydrin, 2-Chloroethanol**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV STEL (ceiling value): 1 ppm or 3,293 $\mu\text{g}/\text{m}^3$. Critical effects include: central nervous system impairment; skin, liver, and kidney damage.**HSDB:** Listed in the Hazardous Substances Data Bank. Exposure damages the nervous, hepatic, renal, and vascular systems.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene dibromide**CAS Number:** 106-93-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene dibromide is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 187.88 (g/mol):**Synonyms:** Dibromoethane; 1,2-Dibromoethane; Dibromoethane, 1,2-; alpha,beta-Dibromoethane; Ethylene bromide; Glycol dibromide; s-Dibromoethane**U.S. EPA Carcinogenic Classification (IRIS):** inhalation unit risk factor is 6E-04 $\mu\text{g}/\text{m}^3$ (95% upper bound).**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Reasonably anticipated to be a human carcinogen (Part B).**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** Confirmed animal carcinogen (A3). Critical effect is skin irritation.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Probably carcinogenic to humans (Group 2A).**ATSDR (MRL):** No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0361
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s059dibr.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethyl-di.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol15/volume15.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/toxprofiles/tp37.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene dichloride (dichloroethane, 1,2-)**CAS Number:** 107-06-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene dichloride is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 98.96 (g/mol):

Synonyms: Ethane, 1,2-dichloro-; Ethylene dichloride; 1,2-Dichloroethane; Dichloroethane, 1,2-; Aethylenchlorid [German]; AI3-01656; alpha,beta-Dichloroethane; Bichlorure d'ethylene [French]; Borer Sol; Brocide; Caswell No. 440; CCRIS 225; Chlorure d'ethylene [French]; Cloruro di ethene [Italian]; Destrujol Borer-Sol; Di-Chlor-Mulsion; Dichlor-mulsion; Dichloremulsion; Dichloro-1,2-ethane [French]; Dichlorure d'ethylene [French]; Dicloruro de etileno [Spanish]; Dutch liquid; Dutch oil; EDC; ENT 1,656; EPA Pesticide Chemical Code 042003; Ethane dichloride; Ethane, 1,2-dichloro-; Ethyleendichloride [Dutch]; Ethylene chloride; Glycol dichloride; HSDB 65; NCI-C00511; RCRA Waste Number u077; Sym-Dichloroethane; 1,2-Bichloroethane; 1,2-DCE; 1,2-Dichloorethaan [Dutch]; 1,2-Dichlor-aethan [German]; 1,2-Dichlorethane; 1,2-Dicloroetano [Italian]; 1,2-Ethylene dichloride; Dichloroethane

U.S. EPA Carcinogenic Classification (IRIS): Class B2 Probable Human Carcinogen (based on sufficient evidence of carcinogenicity in animals). Inhalation RfC is 0.026 $\mu\text{g}/\text{m}^3$.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 10 ppm or 40,474 $\mu\text{g}/\text{m}^3$. Not classifiable as a human carcinogen (A4).

Critical effects include liver damage and nausea.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): 2426.01 $\mu\text{g}/\text{m}^3$, inhalation route, chronic exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0149
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s065dich.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/di-ethan.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol20/volume20.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp38.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene glycol**CAS Number:** 107-21-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene glycol is specifically listed because it is acutely or chronically toxic, causing kidney damage; eye and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 62.07 (g/mol):

Synonyms: Athylenglykol; 1,2-Dihydroxyethane; Dowtherm SR 1; 1,2-Ethandiol; 1,2-Ethanediol; Ethylene alcohol; Ethylene dihydrate; Ethylene glycol; Glycol; Glycol alcohol; Lutrol-9; M.E.G.; Macrogol 400 BPC; Monoethylene glycol; NCI-C00920; Norkool; Tescol; UCAR 17

U.S. EPA Carcinogenic Classification (IRIS): Inhalation RfC and carcinogenicity information not available. Oral RfD available.

PBT: Not listed as Persistent, Bioaccumulative and Toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a Hazardous Air Pollutant by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV STEL (ceiling value): 100 mg/m³ or 100,000 µg/m³. Critical effects include: Respiratory and eye irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Kidney damage; eye and respiratory irritation.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 1,269.33 µg/m³ inhalation route acute exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0238
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethy-gly.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp96.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene imine (aziridine)**CAS Number:** 151-56-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene imine is specifically listed because it is acutely or chronically toxic, causing severe eye, skin and respiratory irritation, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 43.08 (g/mol):

Synonyms: Aziridine; Ethyleneimine; Aethylenimin [German]; A13-50324; Azacyclopropane; Aziran; Azirane; Aziridin [German]; CCRIS 296; Dihydro-1H-azirine; Dihydroazirene; Dimethyleneimine; Dimethylenimine; EI; ENT-50324; Ethyleenimine [Dutch]; Ethylene imine, inhibited; Ethyleneimine stabilisee [French]; Ethylenimine; Ethylimine; Etilenimina [Italian]; Etilenimina estabilizada [Spanish]; HSDB 540; RCRA Waste Number p054; 1H-Azirine, dihydro-

U.S. EPA Carcinogenic Classification (IRIS): Data reviewed and determined to be inadequate for derivation of an inhalation RfC. Oral RfD and carcinogenicity information not available.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV: 0.5 ppm or 881 $\mu\text{g}/\text{m}^3$. Confirmed animal carcinogen (A3). Critical effects include irritation and bronchitis.

HSDB: Listed in the Hazardous Substances Data Bank. This compound causes severe eye, skin, and respiratory irritation.

International IARC: (Under aziridine): Possibly carcinogenic to humans (Group 2B).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0631.htm#refinhal>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethyl-mi.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol9/volume9.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
6. U.S. EPA 2001. List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene oxide**CAS Number:** 75-21-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene oxide is specifically listed because it is known to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 44.05 (g/mol):

Synonyms: 1,2-Epoxyethane; ETO; EtO; E.O.; Ethene oxide; Alpha,beta-oxidoethane; Oxirane; Dimethylene oxide; Oxacyclopropane; Dihydrooxirene; Oxane; Oxyfume; Oxyfume 12 fema no.2433; Amprolene; Amproline

U.S. EPA Carcinogenic Classification (IRIS): Not listed on U.S. EPA Integrated Risk Information System (IRIS) database.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Known to be human carcinogen (Part A).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Threshold quantity (TQ) listed as 10,000 lbs.

ACGIH: TLV: 1 ppm or 1,802 $\mu\text{g}/\text{m}^3$. Suspected human carcinogen (A2). Critical effects include central nervous system impairment and cancer.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Carcinogenic to humans (Group 1).

ATSDR (MRL): 162.15 $\mu\text{g}/\text{m}^3$, inhalation route, intermediate exposure.

Reference Material

1. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s085ethy.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethylene.html>
3. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol60/volume60.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp137.html>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylene thiourea**CAS Number:** 96-45-7

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylene thiourea is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Synonyms: 2-Imidazolidinethione; Ethylenethiourea; ETU; HSDB 1643; Imidazole-2(3H)-thione, 4,5-dihydro-; Imidazolidinethione; Imidazoline-2(3H)-thione; Imidazoline-2-thiol; L'ethylene thiouree [French]; Mercaptoimidazoline; Mercazin I; N,N'-Ethylenethiourea; NA-22; NA-22-D; NCI-C03372; Nocceler 22; Pennac CRA; RCRA Waste Number u116; Rhenogran ETU; Rhodanin S 62; Rodanin S-62 [Czech]; Sodium-22 neoprene accelerator; Soxinol 22; Tetrahydro-2H-imidazole-2-thione; Thiourea, N,N'-(1,2-ethanediy)-; Urea, 1,3-ethylene-2-thio-; USAF EL-62; Vulkacit NPV/C; Warecure C; 1,3-Ethylene-2-thiourea; 1,3-Ethylenethiourea; 2-Imidazolidinethione; 2-Imidazoline-2-thiol; 2-Mercapto-2-imidazoline; 2-Mercaptoimidazoline; 2-Merkaptoimidazolin [Czech]; 2-Thiol-dihydroglyoxaline; 4,5-Dihydro-2-mercaptoimidazole; 4,5-Dihydroimidazole-2(3H)-thione; Ethylene thiourea (ETU)

U.S. EPA Carcinogenic Classification (IRIS): Oral RfD available.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Reasonably anticipated to be a human carcinogen (Part B).

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: Not listed in American Conference of Governmental Industrial Hygienists (ACGIH) 2006 TLV and BEI indices.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3).

ATSDR (MRL): No minimum risk level (MRL) available from the Agency for Toxic Substances and Disease Registry (ATSDR).

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0239
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s086etu.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/ethyl-th.html>
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol79/volume79.pdf>

Completed by: 5, 2, 1

Date: 8/25/06, 8/26/06, 9/9/06

Toxic Compound Data Sheet**Name:** Ethylidene dichloride, (1,1-dichloroethane)**CAS Number:** 75-34-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Ethylidene dichloride is acutely and chronically toxic, causing respiratory system and eye irritation, liver and kidney damage, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA..

Molecular Weight(g/mol): 98.97

Synonyms: Aethylidenchlorid; Chlorinated hydrochloric ether; Chlorure d'ethylidene; Cloruro di etilidene; 1,1-Dichloorethaan; 1,1-Dichloraethan; 1,1-Dichlorethane; Dichloro-1,1 ethane; 1,1-Dichloroethane; 1,1-Dicloroetano; 1,1-Dicloroetano; Ethane, 1,1-dichloro-; Ethylidene chloride; Ethylidene dichloride; HSDB 64; NCI-C04535; RCRA Waste Number u076; UN 2362; Dichloroethane

U.S. EPA Carcinogenic Classification (IRIS): Classified as C- Possible human carcinogen.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV: 100 ppm; A4- not classifiable as a human carcinogen. Critical effects include: respiratory and eye irritation; liver and kidney damage.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0409
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 3, 1

Date: 9/10/06, 9/13/06

Toxic Compound Data Sheet**Name:** Fluorine**CAS Number:** 07782-41-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Fluorine is specifically listed because it is acutely or chronically toxic, causing severe eye, skin and respiratory irritation.

Molecular Weight: 38.00 (g/mol)**Synonyms:** Fluoride; Fluoride ion; Fluoride ion(1-); Fluorine; Fluorine, ion; Hydrofluoric acid, ion(1-); Perfluoride**U.S. EPA Carcinogenic Classification (IRIS):** No inhalation information available; chronic oral exposure toxicity information is available.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the national toxicology program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Threshold quantity (TQ) listed as 10,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 1ppm or 1,554 ug/m³ critical effects; eye skin and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Exposure cause severe eye, mucous membrane, and skin irritation.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Inhalation, acute; 15.54 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS).
<http://www.epa.gov/iris/subst/0053.htm>
2. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances.
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp11.html>

Completed by: 6, 2, 1

Date: 8/23/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Formaldehyde (gas)**CAS Number:** 00050-00-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Formaldehyde is specifically listed because it is reasonably anticipated to be a human carcinogen, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 30.03 (g/mol):

Synonyms: Aldehyde Formique; Aldehyd Mravenci; Aldeide Formica; Bfv Fa; Formaldehyd; Formaldehyde; Formaldehyde Solution (Dot); Formalin; Formalith; Formic Aldehyde; Formol; Fyde; Hoch; Ivalon; Karsan; Lysoform; Methanal; Methyl Aldehyde; Methylene Glycol; Methylene Oxide; Morbucid; NCI-C02799; Oplossingen; Oxomethane; Oxymethylene; Paraform; Polyoxymethylene Glycols; Rcra Waste Number U122; Superlysoform; UN 1198 (DOT); UN 2209 (DOT)

U.S. EPA Carcinogenic Classification (IRIS): Classification -- B1; probable human carcinogen; quantitative estimate of carcinogenic risk from inhalation exposure; inhalation unit risk -- 1.3E-5 per (ug/cu.m).

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Listed by the National Toxicology Program as reasonably anticipated to be a human carcinogen.

HAP: Listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Threshold quantity (TQ) listed as 15,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV-TWA ceiling 0.3 ppm or 368 ug/m³; A2- suspected human carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure causes skin, eye, and respiratory irritation.

International IARC: Group 1; carcinogenic to humans.

ATSDR, MRL: Inhalation, chronic; 9.83 ug/m³.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0419.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s089form.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/formalde.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/allmonos90.php>
Volume 88 (in preparation)
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp111.pdf>

Completed by: 6, 2, 1

Date: 8/25/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Formic Acid**CAS Number:** 00064-18-6

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Formic Acid is specifically listed because it is acutely and chronically toxic, causing eye, skin and respiratory irritation, and kidney damage.

Molecular Weight: 46.02 (g/mol):

Synonyms: Acide Formique; Acido Formico; Ameisensaure; Aminic Acid; Formic Acid; Hydrogen Carboxylic Acid; Kwas Metaniowy; Methanoic Acid; Mierenzuur; Rcra Waste Number U123; UN 1779

U.S. EPA Carcinogenic Classification (IRIS): Information not available.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 5 ppm or 9,411 ug/m³.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure cause skin and eye irritation, abdominal pain, vomiting, hematemesis, dysphagia, dyspnea, burns in the gastrointestinal tract with subsequent strictures, coagulation disorders, pneumonia, acute kidney failure and hepatic damage.

International IARC: Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS).
<http://www.epa.gov/iris/subst/0055.htm>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>

Completed by: 6, 2, 1

Date: 8/25/06, 8/25/06, 9/9/06

Toxic Compound Data Sheet**Name:** Glycol Ethers**CAS Number:** *

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 for the following reason(s): it is a compound that has been determined to be carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Glycol ethers are acutely or chronically toxic, causing central nervous system effects, and are listed as a Hazardous Air Pollutants (HAPs) by U.S. EPA.

Synonyms: None**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** Not listed by ACGIH.**HSDB:** Listed in the Hazardous Substances Data Bank. Effects the central nervous system.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/glycolet.html>
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6, 2, 1

Date: 8/25/06, 8/28/06, 9/9/06

Toxic Compound Data Sheet**Name:** Glyoxal**CAS Number:** 00107-22-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Glyoxal is specifically listed because it is acutely or chronically toxic, causing skin and respiratory irritation.

Molecular Weight (g/mol): 58.04**Synonyms:** Biformal; Biformyl; Diformal; Diformyl; Ethanedial; Ethanedione; 1,2-Ethanedione; Glyoxalaldehyde; Oxalaldehyde**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 100 ug/m³. Critical effects include skin and respiratory irritation.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>

Completed by: 6, 2, 1

Date: 8/25/06, 8/28/06, 9/10/06

Toxic Compound Data Sheet**Name:** Heptachlor Epoxide**CAS Number:** 01024-57-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 for the following reason(s): it is a compound that has been determined to be carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Heptachlor Epoxide is listed by U.S. EPA as a PBT and is carcinogenic.

Molecular Weight: 389.40 (g/mol):

Synonyms: Ent 25,584; Epoxyheptachlor; Hce; Heptachlor Epoxide; 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-2,3,3a,4,7,7a-hexahydro -4,7-methanoindene; 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro -4,7-methanoindan; 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-2,5-methano -2h-indeno(1,2- B)oxirene; Hiptachlor Epoxide; 4,7-methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4, 7,7a-tetrahydro-; 2,5-methano-2h-oxireno(a)indene, 2,3,4,5,6,7,7-heptachloro-; 1a,1b,5,5a,6,6a- Hexahydro- Velsicol 53-cs-17

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; inhalation unit risk -- 2.6E-3 per (ug/cu.m).

PBT: Listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 50 ug/m³; A3- animal carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not listed by ATSDR.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS).
<http://www.epa.gov/IRIS/subst/0160.htm>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program.
<http://www.epa.gov/glnpo/bns/levelii/leviisubsus.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2005.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances.
<http://www.atsdr.cdc.gov/toxprofiles/tp12.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp12.pdf>

Completed by: 6, 1,1

Date: 8/25/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Heptachlor**CAS Number:** 76-44-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 for the following reason(s): it is a compound that has been determined to be carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Heptachlor is listed by U.S. EPA as a Persistent, Bioaccumulative and Toxic (PBT pollutant), is carcinogenic, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 373.32 (g/mol)

Synonyms: Agroceres; 3-chlorochlordene; Dicyclopentadiene, 3,4,5,6,7,8,8a-heptachloro- Drinox; Drinox H-34; E 3314; Ent 15,152; Eptacloro; 1,4,5,6,7,8,8-eptacloro-3a,4,7,7a-tetraido-4,7-endo-metano- Indene; Gpkh; H; H-34; Heptachloor; 1,4,5,6,7,8,8-heptachloor-3a,4,7,7a-tetrahydro-4,7-endo- Methano-indeen; Heptachlor; Heptachlore; 1(3a),4,5,6,7,8,8-heptachloro-3a(1),4,7,7a-tetrahydro-4,7-Methanoindene; 3,4,5,6,7,8,8-heptachlorodicyclopentadiene; 3,4,5,6,7,8,8a-heptachlorodicyclopentadiene; 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-Endomethanoindene; 1,4,5,6,7,10,10-heptachloro-4,7,8,9-tetrahydro-4,7-Endomethyleneindene; 1,4,5,6,7,8,8a-heptachloro-3a,4,7,7a-tetrahydro-4,7-Methanoindane; 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7- Methanoindene; 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7- Methanol-1h-indene; 1,4,5,6,7,10,10-heptachloro-4,7,8,9-tetrahydro-4,7- Methyleneindene; 1,4,5,6,7,8,8-heptachloro-3a,4,7,7,7a-tetrahydro-4,7- Methylene Indene; 1,4,5,6,7,8,8-heptachloro-3a,4,7,7,7a-tetrahydro-4,7-endo- Methano-inden; Heptagran; Heptamul; 4,7-methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a- Tetrahydro-; Na 2761; Nci-c00180; Rcra Waste Number P059; Rhodiachlor; Velsicol 104

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen.**PBT:** Listed as persistent, bioaccumulative and toxic with a threshold of 10 lbs.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 50 ug/m³; A3- animal carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Listed as Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Oral, intermediate; 0.0001 mg/kg/day. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0243.htm>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/glnpo/bns/levelii/leviisubsus.html>
3. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/heptachl.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp12.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp12.pdf>

Completed by: 6, 1, 1

Date 8/25/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet

Name: Hexachlorobenzene (HCB)

CAS Number: 00118-74-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexachlorobenzene (HCB) is listed as a Hazardous Air Pollutant (HAP) and Persistent, Bioaccumulative and Toxic (PBT) by U.S. EPA, and is carcinogenic.

Molecular Weight: 284.78 (g/mol):

Synonyms: Granox; Hexachlorobenzene; Pentachlorophenyl chloride; Perchlorobenzene

U.S. EPA Carcinogenic Classification (IRIS): B2; probable human carcinogen; Inhalation Unit Risk -- 4.6E-4 per (ug/cu.m).

PBT: Listed as persistent, bioaccumulative and toxic with a threshold of 10 lbs.

NTP: Part B; reasonably anticipated to be a human carcinogen.

HAP: Listed on U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 2 ug/m³; A3 animal carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. Repeated exposure affects the pathway for the biosynthesis of heme, as well as a wide range of organ systems (including the liver, lungs, kidneys, thyroid, skin and nervous and immune systems).

International IARC: Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Oral, chronic; 5E-05. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0374.htm>
2. U.S. EPA Persistent Bioaccumulative and Toxic (PBT) Chemical Program
<http://www.epa.gov/opptintr/pbt/pubs/hexa.htm>
3. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s093hexa.pdf>
4. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexa-ben.html>
5. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
6. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
7. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol79/volume79.pdf>
8. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp90.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp90.pdf>

Completed by: 6, 1, 1

Date 8/25/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexachlorobutadiene**CAS Number:** 00087-86-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexachlorobutadiene is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA, and is carcinogenic.

Molecular Weight: 260.76 (g/mol):

Synonyms: 1,3-Butadiene, Hexachloro-; DOLEN-PUR; GP-40-66:120; HCBD; Hexachlor-1,3-Butadien; HeXachlorbutadiene; Hexachlorobutadiene; 1,1,2,3,4,4-Hexachloro-1,3-Butadiene; 1,3- Hexachlorobutadiene; Perchlorobutadiene; RCRA Waste Number U128; UN 2279

U.S. EPA Carcinogenic Classification (IRIS): C; possible human carcinogen; inhalation unit Risk -- 2.2E-5 per (ug/cu.m).

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 0.020 ppm or 213 ug/m³; A3- animal carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. This compound causes skin and eye irritation.

International IARC: Group 3; not classifiable as carcinogenic to humans.

ATSDR, MRL: Oral, intermeiate; 0.0002 mg/kg/day. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0058.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexa-but.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
6. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp42.html>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexachlorocyclopentadiene**CAS Number:** 00077-47-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexachlorocyclopentadiene is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA and is acutely and chronically toxic.

Molecular Weight: 272.75

Synonyms: Graphlox; HCCP; HCCPD; HEX; Hexachloro-1,3-cyclopentadiene; Hexachloropentadiene; PCL; Perchlorocyclopentadiene

U.S. EPA Carcinogenic Classification (IRIS): E- Evidence of non-carcinogenicity for humans; RfC 2×10^{-4} mg/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 0.01 ppm or 112 ug/m³; A4 Not classifiable as a carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation of mist is highly irritating to mucous membranes, causing lacrimation, sneezing, and salivation. Contact with eye causes severe irritation.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0059.htm>
<http://www.epa.gov/IRIS/toxreviews/0059-tr.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexa-die.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1,

Date 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexachloroethane**CAS Number:** 00067-72-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexachloroethane is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA and is acutely and chronically toxic.

Molecular Weight: 326.74

Synonyms: Avlothane; Carbon Hexachloride; Distokal; Distopan; Distopin; Egitol; Ethane Hexachloride; Ethane, Hexachloro-; Ethylene Hexachloride; Falkitol; Fasciolin; Hexachlor-aethan; Hexachloroethane; 1,1,1,2,2,2-hexachloroethane; Hexachloroethylene; Mottenhexe; Na 9037; Nci-c04604; Perchloroethane; Phenohep; Rcra Waste Number U131

U.S. EPA Carcinogenic Classification (IRIS): C; possible human carcinogen; inhalation unit risk -- 4.0E-6 per (ug/cu.m).

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Part B; reasonably anticipated to be a human carcinogen.

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Not Listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 1 ppm or 9,683 ug/m³; A3- Animal carcinogen.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure cause mucous membrane, skin, lung, and cornea irritation.

International IARC: Group 2B; possibly carcinogenic to humans.

ATSDR, MRL: Inhalation, intermediate; 58095.71 ug/m³. Toxicity profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0167.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s094hexa.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexachlo.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol73/volume73.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp97.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp97.pdf>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexachloronaphthalene**CAS Number:** 01335-87-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexachloronaphthalene causes liver damage, is highly toxic by inhalation, and is a strong skin irritant.

Molecular Weight: 334.74**Synonyms:** Halowax 1014**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV- TWA 200 ug/m³. This compound is associated with liver damage and chloracne.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is highly toxic by inhalation and is a strong skin irritant.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexafluoroacetone**CAS Number:** 00684-16-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexafluoroacetone is acutely and chronically toxic. Inhalation of hexafluoroacetone causes testicular and kidney damage, as well as acute irritation to skin, eyes and mucous membranes.

Molecular Weight: 166.02**Synonyms:** HFA**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.10 ppm or 679 ug/m³. This compound causes testicular damage and kidney damage.**HSDB:** Listed in the Hazardous Substances Data Bank. Inhalation of this compound is associated with acute skin, eye and mucous membrane irritation.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexamethyl Phosphoramidate**CAS Number:** 00680-31-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexamethyl Phosphoramidate is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA and is acutely and chronically toxic.

Molecular Weight: 179.20 (g/mol):**Synonyms:** Hempa; Hexametapol; Hexamethylphosphoric triamide; HMPA; Tris (dimethylamino)-phosphine oxide**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Listed as reasonably anticipated to be a human carcinogen (Part B).**HAP:** Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** A3- animal carcinogen; affects upper respiratory tract and causes cancer.**HSDB:** Listed in the Hazardous Substances Data Bank.**International IARC:** Group 2B; possibly carcinogenic to humans.**ATSDR, MRL:** Not available.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexa-pho.html>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
4. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol15/volume15.pdf>
<http://monographs.iarc.fr/ENG/Monographs/suppl7/suppl7.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexamethylene Diisocyanate**CAS Number:** 00822-06-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexamethylene Diisocyanate is chronically toxic and is an upper respiratory tract irritant, potentially causes asthma, and is listed as a Hazardous Air Pollutant (HAP) by U.S. EPA.

Molecular Weight: 168.22 (g/mol)

Synonyms: Hexane, 1,6-diisocyanato-; Hexamethylene diisocyanate; 1,6-hexamethylene diisocyanate; AI3-28285; Diisocyanate d'hexamethylene; HDI; Hexamethylendiisokyanat; Hexamethylene diisocyanate; Hexamethylenediisocyanate; Hexametilendilsocianato; Hexane 1,6-diisocyanate; Hmdi; Hsdb 6134; Isocyanic Acid, Diester with 1,6-hexanediol; Isocyanic Acid, Hexamethylene Ester; Metyleno-bis-fenylloizocyjanian; Szesciometylenodwuizocyjanian; TI 78; 1,6-diisocyanatohexane; 1,6-hexanediol Diisocyanate; 1,6-hexylene Diisocyanate

U.S. EPA Carcinogenic Classification (IRIS): Chronically toxic with RfC.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.005 ppm or 34 ug/m³.**HSDB:** Listed in the Hazardous Substances Data Bank. This compound is associated with isocyanate induced asthma.**International IARC:** Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0638.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexa-dii.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet**Name:** n-Hexane**CAS Number:** 00110-54-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. N-hexane is chronically toxic, and is associated with central nervous system impairment, peripheral neuropathy, and eye irritation. N-Hexane is listed as a hazardous air pollutant (HAP) by U.S. EPA.

Molecular Weight: 86.18 (g/mol)**Synonyms:** n-Hexane; Hexyl hydride; NCI-C60571; Skellysolve B

U.S. EPA Carcinogenic Classification (IRIS): Inadequate information to assess the carcinogenic potential; reference concentration for chronic inhalation exposure - RfC 7×10^{-1} mg/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.**112r:** Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA 50 ppm or 176,237 ug/m³. Effects associated with this compound include central nervous system impairment, peripheral neuropathy, and eye irritation.

HSDB: Listed in the Hazardous Substances Data Bank.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Inhalation, chronic; 2114.85 ug/m³. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0486.htm>
<http://www.epa.gov/IRIS/toxreviews/0486-tr.pdf>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hexane.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp113.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp113.pdf>

Completed by: 6, 1

Date: 8/23/06, 9/9/06

Toxic Compound Data Sheet**Name:** Hexylene Glycol**CAS Number:** 00107-41-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hexylene glycol is acutely and chronically toxic, causing skin, eye irritation, and central nervous system effects.

Molecular Weight: 118.17 (g/mol)**Synonyms:** 2-Methyl-2,4-pentanediol**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA ceiling 25 ppm or 120,828 ug/m³. Critical effect, central nervous system depression.**HSDB:** Listed in the Hazardous Substances Data Bank. Critical effects, skin and eye irritation.**International IARC:** Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydrazine**CAS Number:** 00302-01-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrazine is listed by U.S. EPA as a Hazardous Air Pollutant (HAP) and is carcinogenic.

Molecular Weight: 32.05 (g/mol):**Synonyms:** Hydrazine; Hydrazine, anhydrous; Hydrazine/Hydrazine sulfate

U.S. EPA Carcinogenic Classification (IRIS): B2- probable human carcinogen; quantitative estimate of carcinogenic risk from inhalation exposure - inhalation unit risk - 4.9E-3 per (ug/cu.m).

PBT: Not listed as persistent, bioaccumulative and toxic.**NTP:** Part B; reasonably anticipated to be a human carcinogen.**HAP:** Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.**112r:** Threshold quantity (TQ) listed as 15,000 lbs in section 112r of the Clean Air Act.**ACGIH:** TLV-TWA 0.01 ppm or 13 ug/m³; A3- animal carcinogen.**HSDB:** Listed in the Hazardous Substances Data Bank. Vapors are very irritating to the mucous membranes, nose, throat, and upper respiratory tract.**International IARC:** Group 2B- possibly carcinogenic to humans.**ATSDR, MRL:** Inhalation, intermediate; 5.24 ug/m³. Toxicity Profile available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0352.htm>
2. U.S. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP)
<http://ntp.niehs.nih.gov/ntp/roc/toc11.html>
<http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s096hydr.pdf>
3. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hydrazin.html>
4. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
6. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol4/volume4.pdf>
<http://monographs.iarc.fr/ENG/Monographs/suppl7/suppl7.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol71/volume71.pdf>
7. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp100.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp100.pdf>
8. U.S. EPA 2001. List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 6,1,1

Date: 8/23/06, 8/27/06, 9/9/06

Toxic Compound Data Sheet

Name: Hydrochloric acid (hydrogen chloride)

CAS Number: 07647-01-0

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. This compound is acutely and chronically listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight: 36.47 (g/mol)

Synonyms: Acide Chlorhydrique; Acido Cloridrico 362; Chloorwaterstof; Chlorohydric Acid; Chlorowodor; Chlorwasserstoff; Hydrochloric Acid; Hydrochloride; Hydrogen Chloride; Muriatic Acid; Spirits of Salt; UN 1050; UN 1789; UN 2186

U.S. EPA Carcinogenic Classification (IRIS): Reference concentration for chronic inhalation exposure 2×10^{-2} mg/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Threshold quantity (TQ) listed as 15,000 lbs in section 112r of the Clean Air Act.

ACGIH: TLV-TWA ceiling 2 ppm or 2,983 ug/m³; A4- not classifiable as a human carcinogen; critical effect is upper respiratory irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Corrosive burns may result from the inhalation of acid fumes and from skin contact with or the ingestion of strong acid.

International IARC: Group 3; not classifiable as carcinogenic to humans.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0396.htm>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hydrochl.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol54/volume54.pdf>
6. U.S. EPA 2001. List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>

Completed by: 6,1,1

Date: 8/23/06, 8/27/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydrogen Cyanide salts, as CN**CAS Number:** 00592-01-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrogen cyanide salts are acutely toxic, causing upper respiratory effects, headache, nausea, thyroid effects, palpitation, dyspnea, unconsciousness, and central nervous depression. Exposure may lead to sinus bradycardia ataxia, followed by coma, convulsions, and death.

Molecular Weight: 27.03 (g/mol)**Synonyms:** None**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Not listed as a hazardous air pollutant (HAP) by U.S. EPA.**112r:** Not listed in Section 112r of the Clean Air Act.**ACGIH:** TLV-TWA ceiling 5,000 ug/m³. This compound is associated with upper respiratory effects, headache, nausea, and thyroid effects.

HSDB: Listed in the Hazardous Substances Data Bank. Cyanides are dangerous when inhaled because toxic amounts are absorbed through bronchial mucosa and alveoli. Exposure may cause giddiness, headache, palpitation, dyspnea, unconsciousness, and central nervous depression. Sinus bradycardia, ataxia is followed by coma, convulsions, and death.

International IARC: Not listed as an agent reviewed by IARC.**ATSDR, MRL:** Not available.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/23/06, 8/27/06, 9/10/06

Toxic Compound Data Sheet

Name: Hydrogen Cyanide, as CN (hydrocyanic acid)

CAS Number: 00074-90-8

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrogen Cyanide is acutely and chronically toxic; causing nose and respiratory irritation.

Molecular Weight: Varies

Synonyms: Aero Liquid HCN; Cyclon; Cyclone B; Evercyn; Formic Anammonide; Formonitrile; Hydrogen Cyanide; Prussic Acid; Zaclondiscoids

U.S. EPA Carcinogenic Classification (IRIS): Agent has not undergone a complete evaluation.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Not listed as a hazardous air pollutant (HAP) by U.S. EPA.

112r: Not listed in Section 112r of the Clean Air Act.

ACGIH: TLV-TWA ceiling 4.7 ppm or 5,196 ug/m³.

HSDB: Listed in the Hazardous Substances Data Bank. This compound is a upper respiratory irritant and may cause irritation of the nose and throat.

International IARC: Not listed as an agent reviewed by IARC.

ATSDR, MRL: Not available.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/IRIS/subst/0060.htm>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 6,1,1

Date: 8/22/06, 8/27/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydrogen fluoride, as F**CAS Number:** 07664-39-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, and causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrogen fluoride causes pulmonary inflammation and lung damage of the upper and lower respiratory tract, skin and eye irritation, and fluorosis. This compound is listed as a HAP by U.S. EPA.

Molecular Weight (g/mol): 20.01**Synonyms:** Fluoric acid, Hydrofluoride, Hydrofluoric acid, Fluorine monohydride**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent, bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program.**HAP:** Listed by U.S. EPA as a hazardous air pollutant (HAP).**112r:** Threshold quantity (TQ) listed as 1,000 lbs.

ACGIH: TLV: 0.5 ppm or 409 $\mu\text{g}/\text{m}^3$. TLV STEL (ceiling value): 2 ppm or 1637 $\mu\text{g}/\text{m}^3$. Exposure to this compound causes pulmonary inflammation and lung damage (upper and lower respiratory tract), skin and eye irritation, and fluorosis.

International IARC: Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** 16.37 $\mu\text{g}/\text{m}^3$, inhalation route, acute exposure.

Reference Material

1. U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hydrogen.html>
2. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
<http://toxnet.nlm.nih.gov>
5. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp11.html>

Completed by: 7,1,1,1

Date: 8/15/06 , 8/20/06, 8/25/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydrogen selenide**CAS Number:** 07783-07-5

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrogen selenide is acutely toxic and causes upper respiratory tract effects, eye irritation, central nervous system effects and nausea.

Molecular Weight (g/mol): 80.98**Synonyms:** Selenium dihydride, Selenium hydride**U.S. EPA Carcinogenic Classification (IRIS):** Not listed on IRIS.**PBT:** Not listed as Persistent Bioaccumulative and Toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed by the U.S. EPA as a Hazardous Air Pollutant (HAP).**112r:** Threshold quantity (TQ) listed as 500 lbs.**ACGIH:** TLV: 0.05 ppm or 166 $\mu\text{g}/\text{m}^3$. Critical effects include upper respiratory tract irritation or damage, eye irritation, central nervous system effects, and nausea.**HSDB:** Listed in the Hazardous Substances Data Bank. Signs of toxicity include irritation of the respiratory tract, pulmonary edema, severe bronchitis, and bronchial pneumonia.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** No minimum risk level (MRL) available from ATSDR.

Reference Material

1. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
2. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
3. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 7,1,1

Date: 8/16/06, 8/20/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydrogen sulfide**CAS Number:** 07783-06-4

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydrogen sulfide is acutely toxic and causes eye irritation, central nervous system effects, and upper respiratory tract irritation that leads to pulmonary edema.

Molecular Weight (g/mol): 34.05

Synonyms: Dihydrogen monosulfide; Dihydrogen sulfide; Hydrogen sulfide; Hydrogen sulphide; Hydrosulfuric acid; Sulfureted hydrogen; Sulfur hydride; Acide sulfhydrique [French]; Acide sulphhydrique; EINECS 231-977-3; FEMA No. 3779; HSDB 576; Hydrogen sulfide (ACGIH:OSHA); Hydrogen sulfide (H₂S); Hydrogen sulfure [French]; Hydrogen sulfuric acid; Hydrogene sulfure [French]; Hydrogene sulphure; Idrgeno; solforato [Italian]; RCRA waste number U135; Schwefelwasserstoff [German]; Sewer gas; Siarkowodor [Polish]; Stink DAMP; Zwavelwaterstof [Dutch]

U.S. EPA Carcinogenic Classification (IRIS): Chronic toxicity factor in IRIS, inhalation RfC is 2 µg/m³.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program (NTP).

HAP: Not listed by U.S. EPA as a hazardous air pollutant (HAP).

112r: Threshold quantity (TQ) listed as 10,000 lbs.

ACGIH: TLV: 10 ppm or 13,939 µg/m³. TLV STEL: 15 ppm or 20,908. Critical effects include irritation and central nervous system damage.

HSDB: Listed in the Hazardous Substances Data Bank. Signs of toxicity include irritation of the eyes and upper respiratory tract, and pulmonary edema.

International IARC: Not listed by International Agency for Research on Cancer (IARC).

ATSDR (MRL): 27.85 µg/m³ inhalation route intermediate exposure.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0061.htm>
<http://www.epa.gov/IRIS/toxreviews/0061-tr.pdf>
2. U.S. EPA 2001. *List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act*. EPA-550-B-01-003. October 2001.
<http://www.epa.state.oh.us/dapc/atu/112%28r%29/list.pdf>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
4. Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) for Hazardous Substances
<http://www.atsdr.cdc.gov/mrls.html>
<http://www.atsdr.cdc.gov/toxprofiles/tp114.pdf>
5. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 7,1,1

Date: 8/16/06, 8/20/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydroquinone**CAS Number:** 00123-31-9

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydroquinone is acutely toxic, is associated with central nervous system, dermal, and ocular effects, and is listed by U.S. EPA as a Hazardous Air Pollutant (HAP).

Molecular Weight (g/mol): 110.11

Synonyms: Arctivin; 1,4-Benzenediol; p-Benzenediol; Benzohydroquinone; Benzoquinol; Black and White Bleaching Cream; [Component of] Artra; [Component of] Solaquin; Diak 5; Dihydroquinone; 1,4-Dihydroxy-benzeen [Dutch]; 1,4-Dihydroxybenzen [Czech]; Dihydroxybenzene; 1,4-Dihydroxybenzene; p-Dihydroxybenzene; 1,4-Dihydroxy-benzol [German]; 1,4-Diidrobenzene [Italian]; p-Dioxobenzene; Eldopaque; Eldoquin; HE 5; Hidroquinona [Spanish]; HSDB 577; Hydrochinon [Czech, Polish]; Hydroquinol; Hydroquinole; Hydroquinone; alpha-Hydroquinone; p-Hydroquinone; 4-Hydroxyphenol; Idrochinone [Italian]; NCI-C55834; NSC 9247; Quinol (van); Tecquinol; Tenox hq; Uantox hq; USAF EK-356; p-Hydroxyphenol; Phiaquin; Beta-quinol; Tequinol; UN 2662

U.S. EPA Carcinogenic Classification (IRIS): Toxicology information unavailable on IRIS.

PBT: Not listed as persistent, bioaccumulative and toxic.

NTP: Not listed by the National Toxicology Program.

HAP: Listed on the U.S. EPA Hazardous Air Pollutant (HAP) List and Health Effects Notebook.

112r: Not listed under Section 112(r) of the Clean Air Act.

ACGIH: TLV: 2 mg/m³ or 2,000 µg/m³. This compound is a confirmed animal carcinogen and is associated with central nervous system, dermal, and ocular effects.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure causes ocular irritation.

International IARC: Not classifiable as carcinogenic to humans (Group 3).

ATSDR (MRL): Not listed by ATSDR.

Reference Material

1. U.S. EPA Integrated Risk Information System (IRIS)
<http://www.epa.gov/iris/subst/0508.htm#refinhal>
2. U.S. EPA Hazardous Air Pollutant (HAP) List
<http://www.epa.gov/ttn/atw/188polls.html>
<http://www.epa.gov/ttn/atw/hlthef/hydroqui.html>
3. American Conference of Governmental Industrial Hygienists (ACGIH) 2006.
TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.
Cincinnati, OH: ACGIH Worldwide.
4. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>
5. International Agency for Research on Cancer (IARC)
<http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf>
<http://monographs.iarc.fr/ENG/Monographs/vol15/volume15.pdf>

Completed by: 7,1,1

Date: 8/16/06, 8/20/06, 9/10/06

Toxic Compound Data Sheet**Name:** Hydroxypropyl acrylate, 2-**CAS Number:** 00999-61-1

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, or neurotoxic, causes reproductive dysfunction, is acutely or chronically toxic, or causes the threat of adverse environmental effects through ambient concentrations, bioaccumulation, or atmospheric deposition. Hydroxypropyl acrylate is acutely toxic, causing effects from inhalation and skin exposure, leading to marked irritation, salivation, conjunctival irritation, and pronounced pulmonary irritation or edema. Prolonged skin or eye contact may result in severe tissue damage.

Molecular Weight (g/mol): 130.14**Synonyms:** Acrylic Acid, 2-Hydroxypropyl Ester; beta-Hydroxypropyl Acrylate; Propylene Glycol Monoacrylate**U.S. EPA Carcinogenic Classification (IRIS):** Not listed in IRIS.**PBT:** Not listed as persistent bioaccumulative and toxic.**NTP:** Not listed by the National Toxicology Program (NTP).**HAP:** Not listed by U.S. EPA as a hazardous air pollutant (HAP).**112r:** Not listed under Section 112(r) of the Clean Air Act.**ACGIH:** TLV: 0.5 ppm or 2,661 $\mu\text{g}/\text{m}^3$. Potential exists for exposure by inhalation and dermal contact. Critical effects include upper respiratory tract and eye irritation.**HSDB:** Listed in the Hazardous Substances Data Bank. Acute inhalation may cause marked irritation, salivation, conjunctival irritation, and pronounced pulmonary irritation or edema. Prolonged skin or eye contact may result in severe tissue damage.**International IARC:** Not listed by International Agency for Research on Cancer (IARC).**ATSDR (MRL):** Not listed by ATSDR.

Reference Material

1. American Conference of Governmental Industrial Hygienists (ACGIH) 2006. *TLVs and BEIs: Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*. Cincinnati, OH: ACGIH Worldwide.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system
<http://toxnet.nlm.nih.gov>

Completed by: 7,1,1

Date: 8/16/06, 8/20/06, 9/10/06