Toxic Compound Data Sheet

Name: Acetylsalicylic Acid

Cas Number: 00050-78-2

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. Aspirin can be acutely or chronically toxic (respiratory and CNS effects; eye irritation and anaphylactic phenomenon).

Removal Justification: Minimal risk TLV, irritant only, used in consumer products as Aspirin

Molecular Weight: 180.15 g/mol

Synonyms: aspirin, 2-acetyloxybenzoic acid, 2-acetoxybenzoic acid, acetylsalicylate,

acetylsalicylic acid, O-acetylsalicylic acid

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 National Toxicology Program

HAP: Not listed as a Hazardous Air Pollutant by USEPA

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

ACGIH: TLV- TWA 5000 ug/m^3

skin, eye and gastric irritation; anaphylactic phenomenon

HSDB: Respiratory and CNS effects

International IARC: Not Available

ATSDR, MRL: None 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: 4, 2, 1, 2 Date: 8/16/06, 8/19/06, 4/4/14, 6/10/14

Toxic Compound Data Sheet

Name: Allyl Alcohol

Cas Number: 00107-18-6

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. Allyl Alcohol can cause eye, skin and respiratory irritation.

Removal Justification: minimal risk TLV, irritant only.

Molecular Weight: 58.08 g/mol

Synonyms: Prop-2-en-1-ol, Allyl Al, Allyl Alcohol, Allylic Alcohol, 3-Hydroxypropene, Orvinylcarbinol, 1-Propene-3-ol, Propenol, 2-Propen-1-ol, Propenyl Alcohol, 2-Propenyl Alcohol, Shell Unkrautted A, Vinylcarbinol, 2-Vinylcarbinol, Weed Drench

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 by U.S. EPA

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

ACGIH: TLV- TWA 0.5 ppm or 1,188 ug/m^3;

critical efffects: eye and respiratory irritation

HSDB: eye, skin and respiratory irritation

International IARC: Not listed as a reviewed agent by IARC

ATSDR, MRL: Not Available

Reference Material.

1. U.S. EPA 1997. *Health Effects Assessment Summary Tables.* FY 1997 Update. EPA-540-R-97-036. July 1997.

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: 4, 2, 1, 2 Date: 8/17/06, 8/19/06, 4/30/14, 6/10/14

Toxic Compound Data Sheet

Name: Ammonium sulfamate

CAS Number: 7773-06-0

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. Ammonium sulfamate can cause eye and throat irritation.

Removal Justification: minimal risk TLV, irritant only, used in commercial products (flame retardant) and herbicide.

Molecular Weight (g/mol): 114.13

Synonyms: Amcide, Amicide, Ammat, Ammate, Ammate X, Ammonium amidosulfonate, Ammonium amidosulphate, Ammoniumsalz der amidosulfonsaure, Ammonium sulphamate, AMS, Ikurin, Monoammonium sulfamate, NA 9089, Sulfamic acid monoammonium salt, Sulfaminsaure

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

PBT: Not listed on PBT.

NTP: Not listed in NTP.

HAP: Not listed on HAP list.

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

ACGIH: TLV: 10,000 µg/m^3. Critical effect: eye and throat irritation.

HSDB: respiratory and skin irritation

International IARC: Not listed on IARC list.

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/0007.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: 4, 2, 1, 2

Date: 8/17/06, 8/20/06, 4/1/14, 6/10/14

Toxic Compound Data Sheet

Name: ANTU

CAS Number: 86-88-4

Molecular Weight (g/mol): 202.27

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. ANTU is used primarily as a rodenticide for control of adult Norway rats. Not produced commercially in the U.S. since 1982. ANTU can cause respiratory and thyroid effects.

Removal Justification: Minimal risk TLV. Regulated as a rodenticide.

Synonyms: Alpha-naphthyl thiourea

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

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

NTP: Not listed on U.S. EPA NTP list.

HAP: Not listed on U.S. EPA HAP list.

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

ACGIH: TLV: 0.3 mg/m^3 or 300 $\mu g/m^3$. Not classifiable as a human carcinogen (A4). Critical effects: thyroid effects and nausea.

HSDB: respiratory and thyroid 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. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system 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. NCBI, The PubChem Compound Database

   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

4. U.S. EPA, Pesticide Chemical Search database

   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 4, 2, 1, 2 Date 8/21/06, 8/22/06, 4/4/14, 6/10/14

Toxic Compound Data Sheet

Name: Benomyl

CAS Number: 17804-35-2

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. Benomyl can cause dermatitis, eye irritation.

Removal Justification: Minimal risk tlv, irritant only, regulated as fungicide

Molecular Weight (g/mol): 290.32

Synonyms: Arilate, BBC, Benlat, Benlate, Benlate 50, Benlate 50 W, Benomyl 50W, 2-Benzimidazolecarbamic acid, 1-(butylcarbamoyl)-, methyl ester, BNM, 1-(Butylcarbamoyl)-2-benzimidazolecarbamic acid, methyl ester, 1-(Butylcarbamoyl)-2-benzimidazol-methylcarbamat, Carbamic acid, methyl-, 1-(butylcarbamoyl)-2-benzimidazole ester, D 1991, Du Pont 1991, F1991, Fundasol, Fundazol, Fungicide 1991, MBC, Methyl 1-(butylcarbamoyl)-2-benzimidazolylcarbamate, 1-(n-Butylcarbamoyl)-2-(methoxy-carboxamido)-benzimidazol, Tersan 1991

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

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: 1 mg/m^3 or 1,000 $\mu g/m^3$. Critical effects: dermatitis, eye irritation

HSDB: Listed in the Hazardous Substances Data Bank: eye and 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://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0011

   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. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.
   http://toxnet.nlm.nih.gov

Completed by: 4, 7, 2, 1,2

Date: 8/21/2006, 8/24/06, 8/27/06, 3/27/14, 6/10/14

Toxic Compound Data Sheet

Name: Benzoyl Peroxide

Cas Number: 00094-36-0

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. Benzoyl Peroxide can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, irritant only, used in consumer cosmetic products

Molecular Weight: 242.22 g/mol

Synonyms: Divenzoyl peroxide

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

PBT: Not listed a Persistent, Bioaccumulative and Toxic

NTP: Not listed by the National Toxicology Program

HAP: Not listed as a Hazardous Air Pollutant by USEPA

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

ACGIH: TLV: TWA 5000 ug/m^3; critical effects: eye, skin and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank.

International IARC: Not Classifiable as to Carcinogenicity to Humans

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.

3. International Agency for Research on Cancer (IARC)
http://monographs.iarc.fr/ENG/Classification/Listagentsalphorder.pdf

Completed by: 4, 2, 1, 2

Date: 8/23/06, 8/27/06, 3/27/14, 6/10/14

Toxic Compound Data Sheet

Name: Bis (2-dimethylaminoethyl) ether

Cas Number: 03033-62-3

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. Bis (2-dimethylaminoethyl) ether can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV

Molecular Weight:160.26 g/mol

Synonyms: DMAEE, Ethylamine, 2,2-Oxybis-(N,N-dimethyl)

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

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

ACGIH: TLV: TWA 0.05 ppm or 328 ug/m^3; STEL: 0.15 ppm or 0.98 mg/m^3; Critical effects: 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. 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: 4, 2, 1, 2

Date: 8/23/06, 8/27/06, 3/27/14, 6/10/14

Toxic Compound Data Sheet

Name: Borates, Tetra, Sodium Salts, Anhydrous

Cas Number: 01330-43-4

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. Borates can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, irritant only, naturally occurring mineral

Molecular Weight: 201.22 g/mol

Synonyms: Sodium Tetraborate

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 USEPA

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

ACGIH: TLV: TWA 2000 ug/m^3; STEL: 6,000 ug/m^3 critical effects: eye, skin and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank.

eye skin 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. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.

   http://toxnet.nlm.nih.gov

Completed by: 7, 2, 1

Date: 8/24/06, 8/27/06, 3/27/14

Toxic Compound Data Sheet

Name: Borates, Tetra, Sodium Salts, Decahydrate

Cas Number: 01303-96-4

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. Borates cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, irritant only

Molecular Weight: 301.37 g/mol

Synonyms: Borax

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

PBT: Not listed a Persistent, Bioaccumulative and Toxic

NTP: Not listed by 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 2000 ug/m^3, STEL: 6,000 ug/m^3. Critical effects: 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: 7, 1, 2 Date: 8/24/06, 3/27/14, 6/10/14

Toxic Compound Data Sheet

Name: Borates, Tetra, Sodium Salts, Pentahydrate

Cas Number: 12179-04-3

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. Borates cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, irritant only

Molecular Weight: 291.30 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 National Toxicology Program

HAP: Not listed as Hazardous Air Pollutants by USEPA

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

ACGIH: TLV: TWA 2,000 ug/m^3, STEL: 6,000 ug/m^3. Critical effects: respiratory irritation

HSDB: Not 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.

Completed by: 7, 1, 2 Date: 8/24/06 , 3/27/14, 6/10/14

Toxic Compound Data Sheet

Name: Bromacil

Cas Number: 00314-40-9

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. Bromacil can cause vomiting, gastritis, and tongue numbness.

Removal Justification: Minimal risk TLV, irritant only, pesticide.

Molecular Weight: 261.11 g/mol

Synonyms: 5-Bromo-3-sec-butyl-6-methyluracil

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 the USEPA

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

ACGIH: TLV: TWA 10000 ug/m^3; A3- Confirmed Animal Carcinogen. Critical effects: thyroid

HSDB: Listed in the Hazardous Substances Data Bank. Bromacil poisoning was characterized by vomiting, gastritis, and tongue numbness

International IARC: Not listed as a reviewed agent 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: 7, 2, 1, 2

Date: 8/24/06, 8/27/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Butylamine, n-

CAS Number: 109-73-9

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. n- Butylamine can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, use in pesticide manufacturing.

Molecular Weight (g/mol): 73.14

Synonyms: 1-Amino-butaan, 1-Amino-butaan (DUTCH), 1-Aminobutan, 1-Aminobutan (GERMAN), 1-Aminobutane, 1-Butanamine, Butylamine, MNBA, Mono-n-butylamine, Monobutilamina, Monobutylamine, n-Butilamina, n-Butilamina (ITALIAN), n-Butylamin, n-Butylamin (GERMAN), n-butylamine, Norvalamine

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 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: STEL TLV: ceiling value: 5 ppm or 14,957 µg/m^3. Critical effect: eye, skin and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank.

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: 9, 2, 1, 2

Date: 8/24/06, 8/27/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Butylphenol, o-sec-

CAS Number: 89-72-5

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. o-sec-Butylphenol can cause eye,skin and respiratory irritation.

Removal Justification: Minimal risk TLV, irritant only.

Molecular Weight (g/mol): 150.22

Synonyms: 2-(1-Methylpropyl) phenol; 2-sec-Butylphenol; Butylphenols, liquid; Butylphenols, solid; O-Sec-Butylphenol

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 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: 5 ppm or 30,720 µg/m^3. Eye, skin and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank.

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: 9, 2, 1, 2

Date: 8/24/06, 8/27/06, 4/4/14, 6/10/14

Toxic Compound Data Sheet

Name: Camphor, synthetic

CAS Number: 76-22-2

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. Camphor can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV, used in consumer products and food preparation.

Molecular Weight (g/mol): 152.23

Synonyms: 2-Camphonone, Synthetic camphor, Gum camphor, Laurel camphor

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 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: 2 ppm or 12,452 µg/m^3. TLV STEL: 3 ppm or 18,678 µg/m^3.

Critical effects: eye respiratory irritation; anosmia .

HSDB: Listed in the Hazardous Substances Data Bank.

eye, skin and respiratory irritation; implicated in neonatal and fetal death

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

ATSDR (MRL): No minimum risk level (MRL) 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. 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, 2

Date: 8/16/06, 8/24/06, 4/4/14, 6/10/14

Toxic Compound Data Sheet

Name: Cesium hydroxide

CAS Number: 21351-79-1

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. Cesium hydroxide can cause skin, eye and respiratory irritation.

Removal Justification: Minimal risk TLV

Molecular Weight (g/mol): 149.92

Synonyms: Cesium hydroxide dimer, Cessium hydrate

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

PBT: Not listed on U.S. EPA (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: 2 mg/m^3 or 2,000 $\mu g/m^3$. Critical effect: skin, 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 from the Agency for Toxic Substances and Disease Registry (ATSDR).

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. 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. NCBI, The PubChem Compound Database
http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

4. U.S. EPA, Pesticide Chemical Search database
http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 9, 2, 1, 2

Date: 8/17/06, 08/24/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Chloropicrin

Cas Number: 76-06-2

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. Chloropicrin can cause eye and respiratory irritation.

Removal Justification: Soil fumigant (weed killer and tear gas); regulated as pesticide.

Molecular Weight: 164.39 g/mol

Synonyms: Nitrochloroform; Trichloronitromethane; Nitrotrichloromethane; Acquinite

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 USEPA

112r: Not listed in Section 112r

ACGIH: TLV: TWA 0.1 ppm or 672 ug/m^3; critical effects: eye and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank.

Lacrimator 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. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system.

   http://toxnet.nlm.nih.gov

Completed by: 9, 2, 1, 2

Date: 8/22/06, 08/24/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: o-Chlorostyrene

Cas Number: 2039-87-4

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. o-Chlorostyrene can cause : CNS impairment, skin and eye irritation.

Removal Justification: Minimal risk TLV

Molecular Weight: 138.60 g/mol

Synonyms: 2-Chlorostyrene

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 USEPA

112r: Not listed in Section 112r

ACGIH: TLV: TWA 50 ppm or 283,436 ug/m^3; STEL 75 ppm or 425 mg/m^3;

critical effects: CNS impairment and peripheral neuropathy.

HSDB: Listed in the Hazardous Substances Data Bank.

Eye and skin 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: 9, 2, 1, 2

Date: 8/23/06, 8/24/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Cotton dust, raw

CAS Number: None

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. Cotton dust exposure results mainly from cotton handling and processing in cotton industries.

Removal Justification: Minimal risk TLV, irritant only non-toxic. Available toxicological data contains no evidence that an acute exposure to a high concentration of cotton dust (raw) would cause any irreversible health effects.

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/m^3; 100 ug/m^3 inhalable fraction. Critical effects: asthma

HSDB: Not 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.

Completed by: 9, 2, 1, 2

Date: 8/23/06, 8/24/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Cyhexatin

CAS Number: 13121-70-5

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. Cyhexatin can cause eye irritation anorexia and kidney damage.

Removal Justification: Minimal risk TLV

Molecular Weight (g/mol): 385.16

Synonyms: TCHH, Tricyclohexylhydroxystannane, Tricyclohexylhydroxytin, Tricyclohexylstannium hydroxide, Tricyclohexyltin hydroxide

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 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: 5 mg/m^3 or 5,000 $\mu g/m^3$. Critical effect: respiratory irritation, body weight, kidney damage.

HSDB: Listed in the Hazardous Substances Data Bank: respiratory and 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. 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, 2

Date: 8/23/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Demeton

CAS Number: 8065-48-3

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. Demeton can cause cholinergic effects, conjunctivitis, burns, irritant to trachea, nausea and vomiting, stomachache, diarrhea, acid intoxication, shock.

Removal Justification: Minimal risk TLV, irritant only; and regulated pesticide.

Molecular Weight (g/mol): 258.34

Synonyms: BAY 10756, Bayer 8169, Demeton-o + Demeton-s, Demox, Diethoxy thiophosphoric acid ester of 2-ethylmercaptoethanol, E 1059, ENT 17,295, Mercaptophos, o,o-Diethyl 2-ethylmercaptoethyl thiophosphate, o,o-Diethyl o(and s)-2-(ethylthio)ethyl phosphorothioate mixture, Systemox, Systox, ULV

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

PBT: Not listed as Persistent Bioaccumulative or 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: 0.05 mg/m^3 or 50 $\mu g/m^3$. Potential significant contribution to the overall exposure by the cutaneous route (skin notation). BEI_A also recommended. Critical effect: cholinergic.

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

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 Integrated Risk Information System (IRIS)

   http://cfpub.epa.gov/iris/quickview.cfm?substance_nmbr=0036

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. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 1, 5, 2 Date: 8/16/06, 8/23/06, 6/12/14

Toxic Compound Data Sheet

Name: Demeton-S-methyl

CAS Number: 919-86-8

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. Demeton-S-methyl can cause breathing and eye effects, tightness of the chest, wheezing, a bluish discoloration of the skin, small pupils, aching in and behind the eyes, blurring of vision, tearing, runny nose, headache, and watering of the mouth and cholinesterase inhibition.

Removal Justification: Minimal risk TLV, irritant only, and regulated pesticide.

Molecular Weight (g/mol): 230.30

Synonyms: 04063 (CA DPR Chem Code), 058701 (US EPA PC Code), 4063 (CA DPR Chem Code), 8022-00-2 (CAS Number), 8022002, 8022002 (CAS Number), 919-86-8 (CAS Number), 919868 (CAS Number), Bay 15203, Bayer 21/116, Demeton methyl, Demeton-Methyl, Demeton-O-methyl and Demeton-S-methyl, Demeton-S-methyl, Demeton-S-methyl (mixture), DemetonSmethylmixture, Duratox, Metasystox, Methyl demeton, Methyl mercaptophos, Methyl systox, Metsystox, O-(2-(Ethylthio)ethyl) O,O-dimethyl phosphorothioate and S-(2-(ethylthio)ethyl) O,O-dimethyl phosphorothioate, Phosphorothioic acid, O-(2-(ethylthio)ethyl) O,O-dimethyl ester, mixed with Phosphorothioic acid, S-(2-(ethylthio)ethyl) O,O-dim

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

PBT: Not listed as Persistent Bioaccumulative or 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: 0.05 mg/m^3 or 50 µg/m^3. 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: cholinesterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation causes breathing and eye effects, tightness of the chest, wheezing, a bluish discoloration of the skin, small pupils, aching in and behind the eyes, blurring of vision, tearing, runny nose, headache, and watering of the mouth.

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. 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

3. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

4. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 1, 5, 2 Date: 8/16/06, 8/24/06, 6/12/14

Toxic Compound Data Sheet

Name: Diazinon

CAS Number: 333-41-5

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. Diazinon is acutely toxic and inhalation causes nausea, vomiting, abdominal cramps, diarrhea, excessive salivation, headache, giddiness, vertigo, and tightness in chest.

Removal Justification: Pesticide (consumer use) and banned by U.S. EPA in 2004 (no longer registered for use in the United States). Regulated as pesticide.

Molecular Weight (g/mol): 304.36

Synonyms: Phosphorothioic acid, O,O-diethyl O-[6-methyl-2-(1-methylethyl)-4-pyrimidinyl] ester; Phosphorothioic acid, O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) ester; Phosphorothioic acid, O,O-diethyl O-(6-methyl-2-(1-methylethyl)-4-pyrimidinyl) ester; Basudin; Diazitol; Dipofene; Spectracide; Alfa-tox; AG-500; Antigal; D.Z.N.; D-264; Dacutox; Dassitox; Dazzel; Diagran; Dianon; Diaterr-Fos; Diazajet; Diazide; Diazol; Diethyl 2-isopropyl-4-methyl-6-pyrimidinyl phosphorothionate; Diethyl 2-isopropyl-4-methyl-6-pyrimidyl thionophosphate; Diethyl 4-(2-isopropyl-6-methylpyrimidinyl) phosphorothionate; Dimpylate; Dimpylatum; Dizinon; Drawizon; Dyzol; ENT 19507; Exodin; Fezudin; Flytrol; G 24480; G 301; Galesan; Gardentox; Isopropylmethylpyrimidyl diethyl thiophosphate; Kayazinon; Kayazol; NCI-C08673; Neocidol; Nipsan; Nucidol; O-(2-Isopropyl-4-methylpyrimidyl) O,O-diethyl phosphorothioate; O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate; SAN 326 I; SAN I 201; Sandoz 201; Sandoz 52135; Sarolex; TD-2328; Diethyl-2-isopropyl-4-methyl-6 pyrimidinyl phosphorothionate; Basudin 10G; Bazanon; Bazuden; Bazudin; Compass; Diaginon; Diazinone; Phosphorothioic acid, O,O-dimethyl O-[6-methyl-2-(1-methylethyl)-4-pyrimidinyl] ester; Nucidol Diazinon Sheep Dip; Gesapon 800

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

ACGIH: TLV: 0.01 mg/m^3 or 10 µg/m^3. Not classifiable as a human carcinogen (A4). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). BEI_A also recommended. Critical effect: cholinergic.

HSDB: Listed in the Hazardous Substances Data Bank. Inhalation causes nausea, vomiting, abdominal cramps, diarrhea, excessive salivation, headache, giddiness, vertigo, and tightness in chest.

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

ATSDR (MRL): 9 µg/m^3 inhalation route intermediate exposure. Toxicological Profile available.

Reference Material

1. U.S. EPA Substance Registry System

   http://iaspub.epa.gov/srs/srs_proc_qry.navigate?P_SUB_ID=42705

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/tp86.html

5. NCBI, The PubChem Compound Database
http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

6. U.S. EPA, Pesticide Chemical Search database
http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 5, 1, 1, 1, 2 Date: 8/16/06, 8/24/06, 9/9/06, 4/30/14, 6/10/14

Toxic Compound Data Sheet

Name: Dibutyl phosphate

CAS Number: 107-66-4

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. Dibutyl phosphate can cause irritation of the eyes, nose, throat, lungs, & headaches. Repeated or prolonged exposure may cause irritation of the skin.

Removal Justification: Minimal risk TLV, irritant only.

Molecular Weight (g/mol): 210.21

Synonyms: Dibutyl acid o-phosphate, Di-n-butyl hydrogen phosphate, Dibutyl phosphoric acid

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

PBT: Not listed as Persistent Bioaccumulative or Toxic (PBT).

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

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: 1 ppm or 8,598 µg/m^3. TLV STEL: 2 ppm or 17,195 µg/m^3. Critical effect: irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Causes irritation of the eyes, nose, throat, and lungs. It may also cause headaches. Repeated or prolonged exposure to dibutyl phosphate may cause irritation of the skin.

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: 1, 5,1, 2 Date: 8/16/06, 8/24/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Dichloropropionic acid, 2,2-

CAS Number: 75-99-0

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. The active ingredient dalapon is no longer contained in any registered pesticide products and all uses have effectively been cancelled. 2, 2-Dichloropropionic acid can cause lassitude, vomiting, diarrhea, slowing of pulse, loss of appetite.

Removal Justification: Minimal risk TLV, irritant only, regulated as pesticide / herbicide

Molecular Weight (g/mol): 142.97

Synonyms: Basfapon B; CASRN 127-20-8; Dalapon; Dalapon sodium; Dalapon, sodium salt; 2,2-Dichloropropionic acid; alpha-alpha-Dichloropropionic acid; 2,2-Dichlorpropionsaeure natrium; Dowpon; 2,2-DPA; Gramevin; Propionic acid, 2,2-dichloro-; Radapon; Sodium dalapon; Sodium 2,2-dichloropropionate; Sodium alpha,alpha-dichloropropionate; Unipon

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC available at this time. Oral RfD available. No carcinogenicity information available.

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: 5 mg/m^3 or 5,000 $\mu g/m^3$. Not classifiable as a human carcinogen (A4). Critical effect: irritation.

HSDB: Listed in the Hazardous Substances Data Bank. Symptoms of poisoning are lassitude, vomiting, diarrhea, slowing of pulse, loss of appetite.

International IARC: Not classifiable as to carcinogenicity to humans (Group 3). 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=0146

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: 1, 5, 1, 2 Date: 8/16/06, 8/24/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Dicrotophos

CAS Number: 141-66-2

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. Dicrotophos can cause abdominal cramps, nausea, vomiting, and diarrhea.

Removal Justification: Regulated organophosphorus insecticide

Molecular Weight (g/mol): 237.21

Synonyms: Bidirl; Bidrin; C 709; Carbicron; CIBA 709; cis-2-Dimethylcarbamoyl-1-methylvinyl dimethylphosphate; cis-3-Hydroxy-N,N-dimethylcrotonamide; Crotonamide, 3-hydroxy-N,N-dimethyl-, cis-, dimethyl phosphate; Crotonamide, 3-hydroxy-n-n-dimethyl-, dimethyl phosphate, (e)-; Diapadrin; Dicrotofos; Dicrotophos; 3-(Dimethoxyphosphinyloxy)-N,N-dimethyl-cis-crotonamide; 3-(Dimethoxyphosphinyloxy)-N,N dimethylisocrotonamide; 3-(Dimethylamino)-1-methyl-3-oxo-1-propenyl dimethyl phosphate; Dimethylcarbamoyl-1-methylvinyl dimethylphosphate, cis-2-; 2-Dimethyl cis-2-dimethyl-carbamoyl-1-methylvinyl phosphate; Ektafos; ENT 24,482; Ester; Ester, (e)-; 3-Hydroxydimethyl crotonamide dimethyl phosphate; Hydroxy-N,N-dimethylcrotonamide, cis-3-; 3-Hydroxy-N,N-dimethyl-cis-crotonamide dimethyl phosphate; o,o-Dimethyl-o-(2-dimethyl-carbamoyl-1-methyl-vinyl)phosphat; o,o-Dimethyl-o-(1,4-dimethyl-3-oxo-4-aza-pent-1-enyl)fosfaat; o,o-Dimethyl-o-(1,4-dimethyl-3-oxo-4-aza-pent-1-enyl)phosphate; o,o-Dimethyl-o-(1-methyl-2-N,N-dimethyl-carbamoyl)-vinyl-phosphat; o,o-Dimethyl o-(N,N-dimethylcarbamoyl-1-methylvinyl) phosphate; o,o-Dimetil-o-(1,4-dimetil-3-oxo-4-aza-pent-1-enil)-fosfato; Phosphate de dimethyle et de 2-dimethylcarbamoyl 1-methyl vinyle; Phosphoric acid 3-(dimethylamino)-1-methyl-3-oxo-1-propenyl dimethyl; Phosphoric acid, dimethyl 1-methyl-N,N-(dimethylamino)-3-oxo-1-propenyl; SD 3562; Shell SD-3562

U.S. EPA Carcinogenic Classification (IRIS): (Under Bidrin): No inhalation RfC available at this time. No carcinogenic information available. Oral RfD available.

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: 0.05 mg/m^3 or 50 µg/m^3. Not classifiable as a human carcinogen (A4). Potential significant contribution to the overall exposure by the cutaneous route (skin notation). BEI_A also recommended. Critical effect: cholinergic.

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

cramps, nausea, vomiting, and diarrhea.

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=0211

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. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 1,5, 2 Date: 8/16/06, 8/24/06, 6/12/14

Toxic Compound Data Sheet

Name: Dicyclopentadienyl iron

CAS Number: 102-54-5

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. Iron dicyclopentadienyl can cause eye, skin and respiratory irritation, and liver impairment.

Removal Justification: Minimal risk TLV, pharmaceutical and fuel additive

Molecular Weight (g/mol): 186.03

Synonyms: bis(cyclopentadienyl) iron; bis(Cyclopentadienyl) iron; Biscyclopentadienyliron; Biscyclopentadienyliron [QR]; Catane; Di-2,4-cyclopentadien-1-yliron; Di-2,4-cyclopentadien-1-yliron [QR]; DI-PI-CYCLOPENTADIENYL IRON [QR]; Dicyclopentadienyl Iron; Dicyclopentadienyl iron [QR]; Ferrocene; Ferrotsen; Ferrotsen [QR]; Iron bis(cyclopentadiene); Iron bis(cyclopentadiene) [QR]; Iron dicyclopentadienyl; Iron dicyclopentadienyl [QR]; IRON, BIS(ETA(5)-2,4-CYCLOPENTADIEN-1-YL)- [QR]

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 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: 10 mg/m^3. Critical effects: blood, liver impairment.

HSDB: Listed in the Hazardous Substances Data Bank.

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: 1, 5, 1, 2 Date: 8/17/06, 8/24/06, 3/28/14, 6/10/14

Toxic Compound Data Sheet

Name: Dimethylamine

Cas Number: 00124-40-3

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that areknown 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. Dimethylamine can causes irritation of eyes and throat, sneezing, coughing and dyspnea; pulmonary edema; conjunctivitis; dermatitis; burns of skin and mucous membranes.

Removal Justification: Minimal risk TLV, irritant only.

Molecular Weight: 45.08 g/mol

Synonyms: DMA; Methanamine, N-methyl-; N-methylmethanamine; RCRA Waste Number U092; UN 1032; UN 1160

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 by U.S. EPA.

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV: TWA 5ppm or 9,219 ug/m^3

HSDB: Listed in the Hazardous Substances Data Bank. Causes irritation of eyes and throat, sneezing, coughing and dyspnea; pulmonary edema; conjunctivitis; dermatitis; burns of skin and mucous membranes.

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/0228.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: 1, 5, 1, 2 Date: 8/17/06, 8/25/06, 3/31/14, 6/10/14

Toxic Compound Data Sheet

Name: Dimethylethoxysilane

Cas Number: 14857-34-2

Justification: This compound is listed in Ohio Administrative Code 3745 - 114 - 01 because it fulfills one or more of the following criteria: substances that areknown 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. Dimethylethoxysilane is an upper respiratory tract irritant; can cause headaches and eye irritation.

Removal Justification: Minimal risk TLV, irritant only.

Molecular Weight: 104.20 g/mol

Synonyms: DMES

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 0.5 ppm or 2,131 ug/m^3. Critical effects: upper respiratory tract irritant, headaches and eye 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: 1, 5, 1, 2 Date: 8/17/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Dinitolmide

Cas Number: 148-01-6

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. Dinitolmide is used in feeding poultry. Dinitolmide can cause skin irritation and liver impairment.

Removal Justification: Minimal risk TLV, used in commercial products / livestock feed.

Molecular Weight: 225.16 g/mol

Synonyms: 3,5-Dinitro-o-toluamide

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 5,000 ug/m^3; A4 Not Classifiable as a Human Carcinogen. Critical effects: skin irritation and liver.

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: 1, 5, 1, 2 Date: 8/17/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Diquat (diquat dibromide)

Cas Number: 02764-72-9 (0085-00-7?)

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. Diquat is an aquatic herbicide that can cause lower respiratory tract effects, irritation, and cataracts.

Removal Justification: Used in commercial products – herbicide. Regulated as herbicide.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure can cause skin irritation, irritation of the mouth and upper respiratory tract, cough and chest pain.

Molecular Weight: 344.06 g/mol

Synonyms: 1,1'-aethylen-2,2'-bipyridinium-dibromid; Aquacide; Deiquat; Dextrone 9,10-dihydro-8a,10a-diazoniaphenanthrene(1,1'-ethylene-2,2'- Bipyridylium); Dibromide; 9,10-dihydro-8a,10,-diazoniaphenanthrene Dibromide; 5,6-dihydro-dipyrido(1,2a,1c)pyrazinium Dibromide; 6,7-dihydropyrido (1,2-a',1'-c)pyrazinedium Dibromide; Dipyrido(1,2-a',1'-c)pyrazinediium, 6,7-dihydro-, Dibromide; Diquat; Diquat Dibromide; 1,1'-ethylene-2,2'-bipyridylium Dibromide; Ethylene Dipyridylium Dibromide; 1,1-ethylene 2,2-dipyridylium Dibromide; Fb/2; Na 2781; Preeglone; Reglon; Reglone; Reglox; Weedtrine-d

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 by U.S. EPA

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV-TWA 500 ug/m^3; A4 Not Classifiable as a Human Carcinogen,

Critical effects lower respiratory tract, irritation, and cataracts.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure can cause skin irritation, irritation of the mouth and upper respiratory tract, cough and chest pain.

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/0153.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

4. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 1, 5, 1, 2 Date: 8/23/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Disulfiram

Cas Number: 97-77-8

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. Disulfiram used in treatment of alcohol therapy, can cause nausea, vomiting, rapid heartbeat and peripheral nervous system impairment.

Removal Justification: Minimal risk TLV: Used in commercial product: pharmaceutical.

Molecular Weight: 296.54 g/mol

Synonyms: Antabuse; bis(Diethylthiocarbamoyl) disulfide; TETD; Tetraethylthiuram disulfide

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 2,000 ug/m^3; A4 Not Classifiable as a Human Carcinogen

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: 1, 5, 1

Date: 8/23/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: EPN

CAS Number: 2104-64-5

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. EPN exposure can cause central nervous system effects, cholineterase inhibition and skin irritation.

Removal Justification: Pesticide, regulated under other laws. Regulation under other laws (discontinued 1987). Case Status: No products containing the pesticide are actively registered. The case /is characterized/ as "cancelled." Under FIFRA, pesticide producers may voluntarily cancel their registered products. The active ingredient is no longer contained in any registered pesticide products

Molecular Weight: (g/mol): 232.31

Synonyms: ENT 17,798; EPN 300; Ethoxy-4-nitrophenoxyphenylphosphine sulfide; Ethyl p-nitrophenyl benzenethionophosphonate; Ethyl p-nitrophenyl benzenethiophosphate; Ethyl p-nitrophenyl benzenethiophosphonate; Ethyl p-nitrophenyl phenylphosphonothioate; Ethyl p-nitrophenyl phenylphosphorothioate; Ethyl p-nitrophenyl thionobenzenephosphate; Ethyl p-nitrophenyl thionobenzenephosphonate; o-Aethyl-o-(4-nitro-phenyl)-phenyl-monothiophosphonat; o-Ethyl o-(4-nitrophenyl)benzenethionophosphonate; o-Ethyl o-(4-nitrophenyl) phenylphosphonothioate; o-Ethyl o-p-nitrophenyl phenylphosphonothiolate; o-Ethyl o-p-nitrophenyl phenylphosphorothioate; o-Ethyl phenyl p-nitrophenyl thiophosphonate; o-Etil-o-((4-nitro-fenil)-fenil)-monotiofosfonato; o-(4-Nitrophenyl) o-ethyl phenyl thiophosphonate; Phenylphosphonothioate, o-ethyl-o-p-nitrophenyl-; Phenylphosphonothioic acid o-ethyl o-p-nitrophenyl ester; Phenylthiophosphonate de o-ethyle et o-4-nitrophenyle; PIN; Santox; Benzenephosphonic acid, thiono-, ethyl-p-nitrophenyl ester; o-Ethyl-o-((4-nitro-fenyl)-fenyl)-monothiofosfonaat; Ethyl p-nitrophenyl phenylphosphorothioate (EPN).

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC or carcinogenicity information available. Oral RfD available.

PBT: Not listed on U.S. EPA (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: 0.1 mg/m^3 or 100 $\mu g/m^3$.Critical effects include: Skin irritation or damage, cholineterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank

symptoms of acute intoxication by organophosphorus insecticides include

muscarinic, nicotinic, and central nervous system (CNS) manifestations.

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=0236

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. NCBI, The PubChem Compound Database

   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database

   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 5, 2, 1, 2

Date: 8/25/06, 8/25/06, 5/19/14, 6/10/14

Toxic Compound Data Sheet

Name: Ethanolamine

CAS Number: 141-43-5

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. Ethanolamine exposure can cause central nervous system impairment; eye and skin irritation. It is used as feedstock in the production of detergents, emulsifiers, polishes, pharmaceuticals, corrosion inhibitors, chemical intermediates. Ethanolamine can cause eye, skin irritation and CNS impairment.

Removal Justification: Minimal risk TLV; used in commercial products (personal care products).

Molecular Weight: 61.08 g/mol

Synonyms: 2-Aminoethanol (9ci), Monoethanolamine, Beta-Aminoethyl Alcohol,

2-Hydroxyethylamine

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

PBT: Not listed on (PBT) Chemical Program list.

NTP: Not listed on (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: 3 ppm or 7,494 µg/m^3. TLV STEL: 6 ppm or 14,989 µg/m^3. Critical effects include: Central nervous system impairment; eye and skin irritation.

HSDB: Listed in the Hazardous Substances Data Bankl; 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 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, 2

Date: 8/25/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Ethyl cyanoacrylate

CAS Number: 7085-85-0

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. Ethyl cyanoacrylate can cause respiratory and skin irritation.

Removal Justification: Minimal risk TLV, use in commercial products (super-glue)

Molecular Weight: 125.12 (g/mol):

Synonyms: 2-cyano-2-propenoic acid, ethyl ester; ethyl 2-cyanoacrylate; krazy glue; super glue; 2-cyano-2-propenoic acid, ethyl ester; ECA

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 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: 0.2 ppm or 1,023 µg/m^3. Critical effects include: Respiratory and skin irritation.

HSDB: Listed in the Hazardous Substances Data Bank

Central nervous system impairment and eye and skin 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. 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: 08/25/06, 08/26/06, 3/31/14, 6/10/14

Toxic Compound Data Sheet

Name: Ethylamine

CAS Number: 75-04-7

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. Ethylamine can cause eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV: irritant only

Molecular Weight: 45.08 (g/mol):

Synonyms: Aminoethane, Ethylamine (anhydrous), Monoethylamine

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 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: 5 ppm or 9,219 µg/m^3. TLV STEL: 15 ppm or 27,656 µg/m^3.

Critical effects include: eye, skin 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 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, 2

Date: 8/25/06, 8/26/06, 4/17/14, 6/10/14

Toxic Compound Data Sheet

Name: Fenamiphos

CAS Number: 22224-92-6

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. Fenamiphos is cholinesterase inhibitor pesticide (nematicide and an insecticide, used primarily to control pests on citrus, grapes, peanuts, pineapples, tobacco, etc. and non-agricultural (i.e., turf and ornamentals) sites. Fenamiphos can cause cholinesterase inhibition.

Removal Justification: Used in commercial products: Regulated as pesticide.

Molecular Weight (g/mol): 303.40 (g/mol):

Synonyms: BAY 68138; ENT 27572; ER; Ethyl 3-methyl-4-(methylthio)phenyl(1-methylethyl)phosphoramidate; Ethyl 4-(methylthio)-m-tolyl isopropylphosphoramidate; Isopropylamino-o-ethyl-(4-methylmercapto-3-methylphenyl)phosphate; 1-(Methylethyl)-ethyl 3-methyl-4-(methylthio)phenyl phosphoramidate; (3-Methyl-4-(methylthio)phenyl) ester; Nemacur; Nemacur P; NSC 195106; o-Aethyl-o-(3-methyl-4-methylthiophenyl)-isopropylamido-phosphorsaeureest-; Phenamiphos; Phosphoramidic acid, (1-methylethyl)-, ethyl; SRA 3886

U.S. EPA Carcinogenic Classification (IRIS): No inhalation RfC or carcinogenicity information available. Oral RfD available.

PBT: Not listed on PBT Chemical Program list.

NTP: Not listed on NTP list.

HAP: Not listed on U.E. EPA HAP list.

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

ACGIH: TLV: 0.1 mg/m^3 or 100 µg/m^3. Critical effect: cholinesterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank.

Critical effects: nausea, vomiting, abdominal cramps, diarrhea, salivation; headache,

giddiness, vertigo, weakness; rhinorrhea, chest tightness; blurred vision, miosis; cardiac irregularities; muscle fasciculations; dyspnea.

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/0240.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).

   http://toxnet.nlm.nih.gov/cgi-bin/sis/search

4. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 6, 2, 1, 2 Date: 8/23/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Fenthion

CAS Number: 55-38-9

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. Fenthion is organophosphate pesticide and can cause cholinesterase inhibition.

Removal Justification: Consumer use product (pesticide). Regulated as pesticide.

Molecular Weight: 278.34 (g/mol)

Synonyms: Baytex; Entex; O,O-Dimethyl O-3-methyl-4-methylthiophenyl phosphorothioate

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 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: 0.2 mg/m^3 or 200 $\mu g/m^3$. Critical effect: cholinesterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank. Critical effects: nausea, vomiting, abdominal cramps, diarrhea, salivation; headache, giddiness, vertigo, weakness; rhinorrhea, chest tightness; blurred vision, miosis; cardiac irregularities; muscle fasciculations; dyspnea.

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). http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?./temp/~snMgmo:1

3. NCBI, The PubChem Compound Database http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

4. U.S. EPA, Pesticide Chemical Search database http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 6, 2, 1, 2 Date: 8/23/06, 8/25/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Fonofos

Cas Number: 00944-22-9

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. Fonofos is a cholinesterase inhibitor.

Removal Justification: Pesticide, regulated under other laws (discontinued in 1999). The registrants that support fonofos requested voluntary cancellation, as proposed in the Federal Register on March 18, 1998, and announced as a final action on May 6, 1998.

Molecular Weight: 246.32 (g/mol):

Synonyms: Dyfonate; O-Ethyl-S-phenylethylphosphonodithioate

U.S. EPA Carcinogenic Classification (IRIS):Agent has not undergone a complete evaluation and determination under US EPA's IRIS program for evidence of human carcinogenic potential.

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 USEPA

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV-TWA 100 ug/m^3; Critical effect: cholinesterase inhibition.

HSDB: Listed in the Hazardous Substances Data Bank.

> Critical effects: nausea, vomiting, abdominal cramps, diarrhea, salivation; headache, giddiness, vertigo, weakness; rhinorrhea, chest tightness; blurred vision, miosis; cardiac irregularities; muscle fasciculations; dyspnea

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/0158.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).
http://toxnet.nlm.nih.gov/cgi-bin/sis/search

4. NCBI, The PubChem Compound Database
http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

5. U.S. EPA, Pesticide Chemical Search database
http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 6, 2, 1, 2 Date: 8/25/06, 8/25/06, 5/19/14, 6/10/14

Toxic Compound Data Sheet

Name: Formamide

Cas Number: 00075-12-7

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. Formamide can cause eye and skin irritation; and liver and kidney damage.

Removal Justification: Minimal risk TLV, used in pharmaceuticals, commercial products / pesticides.

Molecular Weight: 45.04 (g/mol):

Synonyms: Carbamaldehyde; Formic acid, amide; Methanamide; Methanoic acid, amide

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 USEPA

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV: TWA 10ppm or 18,421 ug/m^3

critical effects: eye and skin irritation; liver and kidney damage

HSDB: Listed in the Hazardous Substances Data Bank. Exposure cause moderately irritating to skin, mucous membranes.

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, 2 Date: 8/25/06, 8/25/06, 3/31/14, 6/10/14

Toxic Compound Data Sheet

Name: Glutaraldehyde, activated & inactivated

Cas Number: 00111-30-8

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. Glutaraldehyde can cause central nervous system impairment; eye, skin and respiratory irritation. Glutaraldehyde has a variety of commercial uses in make-up, sterilization of medical equipment, and anti-microbial compound.

Removal Justification: Used in consumer products. Regulated as pesticide.

Molecular Weight: 100.11 (g/mol):

Synonyms: 1,3-Diformylpropane; Glutaral; Glutaric dialdehyde; 1,5-Pentanedial

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 USEPA

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV-TWA Ceiling 0.05 ppm or 205 ug/m^3; critical effects: central nervous system impairment; eye, skin and respiratory irritation

HSDB: Listed in the Hazardous Substances Data Bank. Critical effects; eye, skin and respiratory irritation; localized edema

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

3. NCBI, The PubChem Compound Database
   http://www.ncbi.nlm.nih.gov/pccompound?cmd=search

4. U.S. EPA, Pesticide Chemical Search database
   http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0

Completed by: 6, 2, 1, 2

Date: 8/25/06, 8/28/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Glycidol

Cas Number: 00556-52-5

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. Glycidol can cause central nervous system impairment; eye, skin and respiratory irritation.

Removal Justification: Minimal risk TLV.

Molecular Weight (g/mol): 74.08

Synonyms: 2,3-Epoxy-1-propanol; Epoxypropyl alcohol; Glycide

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

PBT: Not Listed as Persistent, Bioaccumulative and Toxic

NTP: Part B, Reasonably Anticipated to be a Human Carcinogen

HAP: Not Listed as a Hazardous Air Pollutant by USEPA

112r: Not Listed in Section 112r of the Clean Air Act

ACGIH: TLV-TWA 2 ppm or 6,060 ug/m^3; A3 Confirmed Animal Carcinogen

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. Department of Health and Human Services. *11th Report on Carcinogens*. National Toxicology Program (NTP) http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s092glyc.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).

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: 6, 2, 1, 2

Date: 8/25/06, 8/28/06, 4/7/14, 6/10/14

Toxic Compound Data Sheet

Name: Hafnium & Compounds, as Hf

Cas Number: 07440-58-6

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. Hafnium and its compounds are mild irritants of the eyes, skin, and mucous membranes. No industrial poisonings involving hafnium have been reported.

Removal Justification: Minimal risk TLV: irritant only.

Molecular Weight: 178.49 (g/mol):

Synonyms: Hf

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 500 ug/m^3

HSDB: Listed in the Hazardous Substances Data Bank. Hafnium and its compounds are mild irritants of the eyes, skin, and mucous membranes. No industrial poisonings involving hafnium have been reported.

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: 1, 6, 1, 2 Date: 8/25/06, 8/27/06, 4/17/14, 6/10/14

Toxic Compound Data Sheet

Name: Hydrogenated terphenyls (nonirradiated)

CAS Number: 61788-32-7

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. Hydrogenated terphenyls can cause skin rash irritation and liver damage.

Removal Justification: Minimal risk TLV (group with PCBs)

Molecular Weight (g/mol): 241.00

Synonyms: Hydrogenated diphenylbenzenes, Hydrogenated phenylbiphenyls, Hydrogenated triphenyls

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 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 4,928 µg/m^3. Critical effects include skin irritation and liver damage.

HSDB: Listed in the Hazardous Substances Data Bank. Exposure is associated with ocular and respiratory tract irritation.

International IARC: Not listed by 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, 2

Date: 8/16/06, 8/20/06, 9/10/06, 4/9/14, 6/10/14