1. CHEMICAL IDENTIFICATION

Product: Dimethoate E267
EPA Signal Word: Warning
EPA Registration No.: 10163-56
Active Ingredient: Dimethoate (31.2%)
CAS No.: 60-51-5
Chemical Name: O,O-dimethyl S-[(methylcarbamoyl)methyl] phosphorodithioate
Chemical Class: Organophosphorous Pesticide

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>OSHA – PEL</th>
<th>ACGIH – TLV</th>
<th>OTHER</th>
<th>NTP/IARC/OSHA CARCINOSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethoate (31.2%)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not established</td>
<td>No</td>
</tr>
<tr>
<td>Xylene, Mixed O, M, &amp; P Isomers (6.1%)</td>
<td>435 mg/m³</td>
<td>435 mg/m³</td>
<td>Not established</td>
<td>No</td>
</tr>
<tr>
<td>CAS# 1330-20-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl Benzene (1.2%)</td>
<td>200 ppm</td>
<td>100 ppm</td>
<td>Not established</td>
<td>No</td>
</tr>
<tr>
<td>CAS# 100-41-4</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Cyclohexanone (30.5%)</td>
<td>200 mg/m³</td>
<td>100 mg/m³</td>
<td>Not established</td>
<td>No</td>
</tr>
<tr>
<td>CAS# 108-94-1</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Physical Properties
- Appearance: Clear, light yellow to amber liquid
- Odor: Slight mercaptan odor

Symptoms of Overexposure
Dimethoate is an organophosphate cholinesterase inhibitor. Symptoms of poisoning including headache, lightheadedness, weakness, abdominal cramps, diarrhea, nausea, muscle twitching, excessive salivation, perspiration and blurred vision. More severe signs include lacrimation, pinpoint pupils, excessive respiratory secretions, cyanosis, convulsions, generalized tremor, coma and death. This product contains cyclohexanone, which may be irritating to the skin, eyes, and mucous membranes, and may produce transient corneal injury. This formulation also contains mixed aromatic hydrocarbons, including xylene. Inhalation of aromatic hydrocarbon vapors may cause central nervous system depression, dizziness, disturbances in vision, and respiratory irritation. Contact with eyes and skin may be irritating. Dermatitis and dermal sensitization may occur.

Medical Conditions Likely to be Aggravated by Exposure
Pre-existing skin, eye, liver, kidney and nervous disorders.

Primary Routes of Exposure
Harmful if ingested, inhaled, or absorbed through skin.
3. HAZARDS IDENTIFICATION (continued)

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, sulfides, oxides of sulfur, phosphorus trioxide, dimethyl sulfide.

Unusual Fire, Explosion, and Reactivity Hazards
Containers in fire may burst or explode from excessive heat. Stay well back from fire area. Vapors may travel along floor to ignition source and flash back.

4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

**Ingestion:** DO NOT induce vomiting. Call a Poison Control Center or hospital immediately.

**Inhalation:** Remove victim to fresh air. Apply artificial respiration if necessary.

**Eye Contact:** Concentrated material causes eye irritation. In case of contact with eyes, flush eyes with plenty of water for at least 15 minutes.

**Skin Contact:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**Note to Physician**
The effects of exposure to this, cholinesterase inhibiting, product can be controlled with atropine in 2-4 mg doses intravenously or intramuscularly. Repeat at 15-minute intervals until signs of atropinization appear. Pralidoxime chloride (2-PAM) may be effective as an adjunct to atropine. The product contains light aromatic hydrocarbons that can produce a severe pneumonitis or pulmonary edema if aspirated. Consideration should be given to gastric lavage with an endotracheal tube in place. Central nervous system stimulation can be controlled with barbituric acid derivatives. Diazepam was not found to be useful in an animal (rat) study. Do not give morphine or tranquilizers. Epinephrine is contraindicated due to cardiac muscle stimulation. Close supervision with otherwise symptomatic and supportive treatment is advised.

!! IN ALL CASES OF SUSPECTED POISONING, GET MEDICAL ATTENTION IMMEDIATELY !!

5. FIRE FIGHTING MEASURES

**Flashpoint (test method):** 109°F (TCC)
**Flammable Limits (% in air):** Not available
**Autoignition Temperature:** Not available

**Appropriate Extinguishing Media**
Use CO₂, foam, dry chemical, water spray or fog.

**Fire Fighting Guidance**
Smoke and fumes from fire may contain hazardous components. Use self-contained breathing apparatus and full protective clothing. Fight fire from upwind side. Keep non-essential personnel away from immediate fire area and out of any fall-out or run-off areas. Evacuate people downwind from fire. If water is used to fight fire or to cool containers, contain run-off by diking to prevent contamination of water supplies.

**Unusual Fire, Explosion, and Reactivity Hazards**
Containers in fire may burst or explode from excessive heat. Stay well back from fire area. Vapors may travel along floor to ignition source and flash back.

6. ACCIDENTAL RELEASE MEASURES

**In Case of Spills or Leaks**
Isolate and post spill area. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons. Keep material out of streams and sewers. Dike to confine spill, and absorb with an absorbent such as clay, sand or cat litter. Vacuum, shovel or pump wastes into an approved drum and label drum for contents. To decontaminate spill area, tools and equipment, wash with organic solvent, detergent, bleach or caustic solution and add the solution to the drums of wastes already collected. Dispose of drummed wastes according to the methods outlined in Section 13 – Disposal Considerations.
7. HANDLING AND STORAGE

May be harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Store in the original container and keep closed. Store containers in a cool dry place.

Precautions in storing

DO NOT contaminate water, food, or feed by storage or disposal. Do not use, pour, spill or store near heat or open flame. Store in a cool, dry place away from children, domestic animals, food and feed products. Do not contaminate other stored products or the storage area by storage of this product. Immediately clean up any spills which, occur during storage. Protect from freezing.

Storing

Store in a cool, dry place away from children, domestic animals, food and feed products. Immediately clean up any spills which, occur during storage. Protect from freezing. Store in a well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Thoroughly ventilate all transport vehicles prior to unloading. Store in a well-ventilated area. Use local exhaust at all processing locations to control employee exposure.

Eye/Face: Wear protective eyewear appropriate to exposure potential.

Skin Protection: Applicators and other handlers (other than mixers and loaders) must wear coveralls over short-sleeved shirt and short pants, chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure and a chemical-resistant apron when cleaning equipment. Mixers and loaders must wear coveralls over short-sleeved shirt and short pants, chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear, and a chemical-resistant apron when mixing or loading.

Respiratory Protection: For exposure in enclosed areas, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides, or a canister approved for pesticides. For exposure outdoors, use a dust/mist filtering respirator.

Additional Protection Information: Inspect gloves regularly for leaks. Emergency eyewash fountain should be located nearby. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Applicators/Handlers: Applicators and other handlers (other than mixers and loaders) must wear coveralls over short-sleeved shirt and short pants, chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure and a chemical-resistant apron when cleaning equipment.

Mixers/Loaders: Mixers and loaders must wear coveralls over short-sleeved shirt and short pants, chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear, and a chemical-resistant apron when mixing or loading.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, light yellow to amber
Odor: Solvent and slight mercaptan odor
Melting Point: Not available
Boiling Point: Not available
9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

Specific Gravity/ Density: 1.08 @ 25°C / 9.01 lbs./gal

Solubility in H₂O
Dimethoate Emulsifiable

Vapor Pressure
Dimethoate 28.4 (Reid) (ASTM D-323)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur

Decomposition Products: Carbon monoxide, carbon dioxide, sulfides, oxides of sulfur, phosphorus trioxide, dimethyl sulfide

Hazardous Mixtures: Strong oxidizers, strong acids, alkalis (bases)

Conditions To Avoid: Excessive heat and fire; alkalis and oxidizing agents. Thermal decomposition and burning may produce toxic by-products.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies
Ingestion: Not established
Dermal: Not established
Eye Contact: Irritant
Skin Contact: Slight irritant
Dermal Sensitization: Not determined

Mutagenic Potential
Not available

Reproductive Hazard Potential
Not available

Chronic/Subchronic Toxicity Studies
Not available

Carcinogenic Potential
None

Other Toxicity Information
Not available

12. ECOLOGICAL INFORMATION

Summary of Effects
Dimethoate
This pesticide is toxic to wildlife and aquatic invertebrates. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning equipment or disposal of wastes. This pesticide is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Other Environmental Information Use Precautions
Not available
13. DISPOSAL CONSIDERATION

Pesticide Disposal
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal
Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT Classification
RQ, Organophosphorus Pesticide, Liquid, Toxic, Flammable, (Dimethoate), 6.1, UN 3017, PG III, NAERG# 131 (Add “Marine Pollutant” if shipped by water)

International Maritime Organization
RQ, Organophosphorus Pesticide, Liquid, Toxic, Flammable, (Dimethoate), 6.1, UN 3017, PG III, Marine Pollutant, EmS 6.1-01, MFAG 505, NAERG# 131

International Civil Aviation Organization
RQ, Organophosphorus Pesticide, Liquid, Toxic, Flammable, (Dimethoate), 6.1, UN 3017, PG III, Marine Pollutant, NAERG# 131

15. REGULATORY INFORMATION

SARA Title III Classification
Section 302/304: Dimethoate (60-51-5)
Section 311/312: Immediate (acute) health hazard
Section 313 chemical(s): Dimethoate, Xylenes, Ethyl Benzene
Threshold Planning Quantity (TPQ): 187 gals. of product (500 lbs. of Dimethoate)

Extremely Hazardous Substance (EHS)
Dimethoate (60-51-5)

Proposition 65
Not applicable

CERCLA Reportable Quantity (RQ)
3.5 gallons of product (10 lbs. of Dimethoate)

RCRA Classification
RCRA Code P044

TSCA Status
Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings
| Health: | 2 |
| Flammability: | 2 |
| Reactivity: | 0 |

0 Least
1 Slight
2 Moderate
3 High
4 Severe

Notice: The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

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