



MATERIAL SAFETY DATA SHEET

Product: Gowan Dimethoate E267

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(520) 783-8844

Emergency Phone: (520) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®: Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
For MEDICAL Emergency: (800) 225-5635 ext. 283

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

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Dimethoate (31.2%)	Not applicable	Not applicable	Not established	No
Xylene, Mixed O, M, & P Isomers (6.1%) CAS# 1330-20-7	435 mg/m ³	435 mg/m ³	Not established	No
Ethyl Benzene (1.2%) CAS# 100-41-4	200 ppm	100 ppm	Not established	No
Cyclohexanone (30.5%) CAS# 108-94-1	200 mg/m ³	100 mg/m ³	Not established	No

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 !!

For emergency **MEDICAL** response and hazard communication **ONLY**, call:

Hazard Information Services at (800) 228-5635 ext. 283.

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 Fire 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	0	Least
Flammability:	2	1	Slight
Reactivity:	0	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.

Prepared By:

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