



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Formulator: Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(928) 783-8844

Emergency Phone: (928) 783-3803
For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC®:
For MEDICAL Emergency:

Inside the U.S.: (800) 424-9300
Outside the U.S.: (703) 527-3887
(888) 478-0798

Product: Supracide® 2E
EPA Signal Word: Danger-Poison
Active Ingredient: Methidathion (24.4%)
Chemical Name: O,O-dimethyl-S-[5-methoxy-2-oxo-1,3,4-thiadiazol-3(2H)-yl-methyl]-dithiophosphate
Chemical Class: Organophosphorous Insecticide

EPA Registration No.: 10163-236
CAS No.: 950-37-8

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Light amber liquid
Odor: Garlic-like

Symptoms of Acute Exposure

Symptoms of organophosphate poisoning include headache, dizziness, blurred vision, weakness, nausea, diarrhea, cramps, discomfort in the chest, nervousness, sweating, miosis (pinpoint pupils), tearing, salivation, uncontrollable muscle twitches, convulsions, coma, and loss of reflexes and sphincter control. If swallowed and aspirated into lungs, chemical pneumonia can occur. Supracide 2E can cause irreversible eye injury.

Medical Conditions Likely to be Aggravated by Exposure

Exposure to cholinesterase inhibitors should be restricted in persons with hemolytic anemias or pre-existing depression of cholinesterase. Also individuals with pre-existing respiratory disorders should use extra care in handling this product.

Target Organs

Active Ingredients
Methidathion: Central Nervous System and Liver

Hazardous Decomposition Products

None Known

Unusual Fire, Explosion, and Reactivity Hazards

Supracide 2E is an NFPA Class II combustible liquid.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Methidathion (24.4%)	Not established	Not established	Not established	No
Ethylbenzenes (2%)	435 mg/m ³	435 mg/m ³	Not established	No
Petroleum Solvent	None	525 mg/m ³	Not established	No
Trimethylbenzenes (17%)	125 mg/m ³	125 mg/m ³	Not established	No
Xylenes (12%)	435 mg/m ³	435 mg/m ³	Not established	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

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.

This product is an organophosphate.

IF IN EYES: Flush with plenty of water. Get medical attention immediately.

IF SWALLOWED: Call a physician or poison control center immediately. DO NOT INDUCE VOMITING UNLESS NO OTHER TREATMENT IS AVAILABLE. Vomiting may cause aspiration pneumonia. If it is necessary to induce vomiting, do so under medical supervision. Give victim 1 or 2 glasses of water and insert finger in back of throat. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

IF ON SKIN: Remove contaminated clothing and wash skin with plenty of soap and water. Get medical attention.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth unless exposure was due to swallowing; then use cardiopulmonary resuscitation (CPR). Get medical attention.

NOTE TO PHYSICIAN: Lavage stomach with care to prevent aspiration into lungs. After lavage, instill and leave 30 gm. activated charcoal in 3-4 oz. of water. Atropine sulfate and 2-PAM are specific antidotes. Morphine, theophylline, aminophylline, and large amounts of intravenous fluids are contraindicated.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: (888) 478-0798

5. FIRE FIGHTING MEASURES

Flashpoint (test method): 105°F (TCC)

Flammable Limits (% in air): Not available

Autoignition Temperature: >982°F

Flammability: Moderate

Appropriate Extinguishing Media

Use dry chemical, foam, or CO₂ extinguishing media.

Fire Fighting Guidance

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

Unusual Fire, Explosion, and Reactivity Hazards

Supracide 2E is an NFPA Class II combustible liquid.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and use a particulate filter, NIOSH approved per 42 CFR Part 84. Select P-100 type as appropriate for the air contaminants present. Filter efficiency will be 99.97% as appropriate for the size distribution of dusts present. For small spills, sweep up, keeping dusts to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent; absorb with pet litter or other absorbent material. Sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow washwaters to contaminate water supplies.

7. HANDLING AND STORAGE

Precautions in Storing

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS.

Ingestion:	Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages, or tobacco products in the storage area. Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.
Eye Contact:	To avoid eye contact, wear safety glasses with side shields or chemical goggles.
Skin Contact:	To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.
Inhalation:	To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84. Select P-100 type as appropriate for the air contaminants present. Filter efficiency will be 99.97% as appropriate for the size distribution of dusts present
Applicators/ Handlers:	Please refer to the product label for personal protective clothing/equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light amber liquid
Odor:	Organophosphate
Melting Point:	Not applicable
Boiling Point:	155-165°C
Specific Gravity/ Density:	1.07 g/cc @ 20°C
pH:	4-6 in 1% solution @ 25°C
Solubility in H₂O	
Methidathion	200.0 mg/L @ 25°C
Vapor Pressure	
Methidathion	1.90E-01 mPa @ 20°C

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will not occur
Decomposition Products:	None known
Conditions to Avoid:	None known

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion:	Highly toxic	
	Oral LD ₅₀ (rat):	111 mg/kg body weight
Dermal:	Slightly toxic	
	Dermal LD ₅₀ (rabbit):	2241 mg/kg body weight
Inhalation:	Moderately toxic	
	Inhalation LC ₅₀ (rat):	between 0.44 and 0.75 mg/L air – 4 hours
Eye Contact:	Corrosive on contact (rabbit)	
Skin Contact:	Moderately irritating (rabbit)	
Skin Sensitization:	Not a sensitizer (Guinea pig)	

Mutagenic Potential

Methidathion:	None observed
----------------------	---------------

11. TOXICOLOGICAL INFORMATION

Reproductive Hazard Potential

Methidathion: Reproductive: Impaired mating performance, decreased pup weights and viability at high doses (rats)
Teratogenic: None observed

Chronic/Subchronic Toxicity Studies

In long term feeding studies with mice, rats and dogs, high doses of Methidathion Technical caused hepatotoxic effects. In mice, lifetime feeding at high doses produced liver tumors. In mice, lifetime feeding at high doses produces liver tumors. In a reproductive study with rats, cholinesterase inhibition caused impaired mating performance, decreased pup body weights and decreased pup viability at the highest dose level administered. Methidathion was not teratogenic in rats or rabbits, and various mutagenicity studies show that Methidathion is not genotoxic.

Other Toxicity Information

Supracide 2E contains an aromatic petroleum solvent composed of xylenes, ethylbenzenes and aromatic naphtha containing trimethylbenzenes. Inhalation of solvent vapors at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress, and coma. Exposure to extremely high levels of xylenes may cause kidney and liver damage.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes. This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated crop. Do not apply when bees are actively visiting the crop, cover crop, or weeds blooming in the treated area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

13. DISPOSAL CONSIDERATION

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT Classification

Non-Bulk: UN 3017, Organophosphorous Pesticide, Liquid, Toxic, Flammable, 6.1 (3), PG III

Bulk: UN 3017, RQ, Organophosphorous Pesticide, Liquid, Toxic, Flammable, (Contains Xylene, Methidathion), 6.1 (3), PG III

International Maritime Organization

UN 3017, Organophosphorous Pesticide, Liquid, Toxic, Flammable, (Methidathion), 6.1 (3), PG III, Marine Pollutant

International Civil Aviation Organization

UN 3017, Organophosphorous Pesticide, Liquid, Toxic, Flammable, (Methidathion), 6.1 (3), PG III, Marine Pollutant

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304: Methidation (950-37-8)
Section 311/312: Acute health hazard
Chronic health hazard
Section 313 chemical(s): Ethylbenzene (100-41-4)
M-xylene (108-38-3)
O-xylene (95-47-6)
1,2,4-trimethylbenzene (95-63-6)

Threshold Planning Quantity (TPQ): 228 gals. product (500 lbs. Methidathion)

Extremely Hazardous Substance (EHS)
Methidathion

Proposition 65

Not applicable

CERCLA Reportable Quantity (RQ)

1,000 gallons

RCRA Classification

U239 (m-xylene)

TSCA Status

Exempt from TSCA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 3
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.

Prepared By:

Gowan Company
(928) 783-8844

Supracide® is a registered trademark of Syngenta Crop Protection, Inc.