

MATERIAL SAFETY DATA SHEET**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** INJECT-A-CIDE® (contains MSR 50% Concentrate)*

*MSR is a trademark of Gowan Company

EPA Registration Number: 7946-10**FORMULATOR:** Gowan Company
P.O. Box 5569
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J.J. MAUGET COMPANY
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Arcadia, CA 91006-5847
Ph: (626)-444-1057
Fax: (626)-444-7414**EMERGENCY TELEPHONE NUMBERS:** (800)-873-3779
CHEMTREC: (800)-424-9300**2. COMPOSITION/INFORMATION ON INGREDIENTS**

COMPONENT	CASN	% By WT.	OSHA PEL	ACGIH TLV	Carcinogen	Sec. 313
Oxydemeton-methyl	301-12-2	50	Not established	Not established	No	No
Methyl Isobutyl Ketone	108-10-4	50	50 ppm	50 ppm	No	Yes

3. HAZARDS IDENTIFICATION**Primary Routes of Exposure**

Dermal absorption and inhalation are the primary routes of entry. This product can be absorbed through the skin.

Symptoms of Acute Exposure

Inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry, and the onset of symptoms may be delayed up to 12 hours. First symptoms of poisoning may be nausea, increased salivation, lachrymation, blurred vision and constricted pupils. Other symptoms of systemic poisoning include vomiting, diarrhea, abdominal cramping, dizziness and sweating. After inhalation, respiratory symptoms including tightness of chest, wheezing, and laryngeal spasms may be pronounced at first. If the poisoning is severe, then symptoms of weakness, muscle twitching, confusion, ataxia, slurred speech, convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases, death may occur due to a combination of factors such as respiratory arrest, paralysis of respiratory muscles or intense bronchoconstriction. Complete symptomatic recovery from sublethal poisoning usually occurs within one week once the source of exposure is completely removed. The aromatic hydrocarbon solvents in this product can be irritating to the eyes, nose and throat. In high concentration, they may cause central nervous system depression and narcosis characterized by nausea, lightheadedness and dizziness from overexposure by inhalation.

Medical Conditions Likely to be Aggravated by Exposure

No specific medical conditions are known which may be aggravated by exposure to the active ingredient in this product; however, any disease, medication, or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredient. In addition, certain pre-existing skin, liver, and kidney disorders may be aggravated by exposure to this product due to solvent components.

Hazardous Decomposition Products

CO, P₂O₅, SO₂

Unusual Fire, Explosion, and Reactivity Hazards

None Known

4. FIRST AID MEASURES

- Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Note to Physician

ANTIDOTE: Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine. Compound inhibits cholinesterase, resulting in stimulation of the central nervous system, the parasympathetic nervous system and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: (800)-873-3779

5. FIRE FIGHTING MEASURES

- Flash Point (test method):** 69°F (TCC), 78°F (TOC)
- Flammable Limits (% in air):** **upper explosive limit (UEL):** Not established
lower explosive limit (LEL): 1.2%

Appropriate Extinguishing Media:

Water Spray, CO₂ Foam, Dry Chemical

Fire Fighting Guidance

Keep out of smoke. Cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment. Contain runoff by diking to prevent entry into sewers or waterways. Equipment or materials involved in pesticide fires may become contaminated.

Unusual Fire, Explosion, and Reactivity Hazards

None known

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Isolate area and keep unauthorized people away. Do not walk through spilled material. Avoid skin contact. Carefully dam up spilled material to prevent run-off. Absorb spilled material with absorbing materials and dispose as directed for pesticides. Scrub contaminated area with detergent and bleach solution. Repeat. Rinse with water. Absorb and collect wash solution for proper disposal. Do not allow material to enter streams, sewers, or other waterways.

7. HANDLING AND STORAGE

Precautions in Storing: Do not store next to herbicides. Do not contaminate water, food or feed by storage or disposal.

Storage: Store in a cool, dry place in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store away from heat and open flame. Store in original container and out of the reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ventilation: Maintain exposure levels below the applicable exposure limits through the use of general and local exhaust ventilation.

Respiratory Protection: For exposure in enclosed areas, wear a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter. For exposure outdoors wear a dust/mist filtering respirator (MSHA/NIOSH) approval number prefix (TC-21C), or a NIOSH approved respirator with any R, P or HE filter.

Personal Protective Equipment: Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves such as barrier laminate or butyl rubber or nitrile rubber or Viton, and protective eyewear.

Additional Protection Information: Plasma and/or red blood cell cholinesterase activity can be used to detect excessive absorption of MSR 50% Concentrate. It is preferable to establish a pre-exposure baseline value for best comparisons. Metabolites may also be detected in the blood or urine. If significant cholinesterase depression occurs, no further exposure should be allowed until cholinesterase values return to normal. Clean water should be available for washing in case of eye or skin contamination. Educate employees in the safe use of the product. Follow all label instructions and precautionary statements. 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.

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. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Clear, colorless to amber
Odor:	Sulfurous
Melting Point:	-10°C
Specific Gravity/Density:	1.03 @ 20°C / 8.59 lbs/gal
Solubility in H₂O	
Active Ingredient:	Miscible
Vapor Density (air=1)	
Active Ingredient:	Not established

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will not occur
Decomposition Products:	CO, P ₂ O ₅ , SO ₂
Hazardous Mixtures:	Avoid oxidizing agents
Conditions To Avoid:	Sustained temperatures above 104°F (40°C). Avoid exposure to strong oxidizing agents. Subject to hydrolysis. Unstable in alkaline media.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity/Irritation Studies**

Acute Oral:	Rat (female) LD ₅₀ = 96 mg/kg
Acute Dermal:	Rabbit (male) LD ₅₀ = 844 mg/kg
Inhalation:	Rat (female) LC ₅₀ = 0.427 mg/L (4-hr)
Eye Irritation:	Rabbit - Slightly irritating
Dermal Irritation:	Rabbit - Irritant (probably caused by inerts)
Dermal Sensitization:	Rabbit - Very slightly irritating Guinea Pig - Not a skin sensitizer (Beuhler)

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment.

13. DISPOSAL CONSIDERATIONS

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide 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: Immediately upon removing from tree, place capsule in a 5 ml plastic bag of the type which is part of the packaging of Inject-A-Cide under DOT-E-8386. Then enclose in the original shipping carton to be transported to a facility for disposal in a manner authorized by State and Local Authorities.

14. TRANSPORTATION INFORMATION

DOT Classification: Organophosphorus Pesticide, Liquid, Flammable, Toxic, N.O.S. (Methyl Isobutyl Ketone, Oxydemeton-methyl), 3, UN 2784, PGII

International Maritime Organization: Organophosphorus Pesticide, Liquid, Flammable, Toxic, N.O.S. (Methyl Isobutyl Ketone, Oxydemeton-methyl 50%), 3, UN 2784, PGII, (21°C c.c.)

International Civil Aviation Organization: Organophosphorus Pesticide, Liquid, Flammable, Toxic, N.O.S. (Methyl Isobutyl Ketone, Oxydemeton-methyl 50%), 3, UN 2784, PGII

Hazardous Classification: 3

Identification Number: UN 2784

Marine Pollutant: No

RQ Designation Required: No

Placards Required: Flammable Liquid

Labels Required: Flammable Liquid, Poison

Emergency Response Guide No.: 28

15. REGULATORY INFORMATION

EPA Pesticide Regulations

Signal Word: DANGER

Extremely Hazardous Substance (EHS): No

Threshold Planning Quantity (TPQ): 10,000 lbs. of product

SARA Title III Classification

Section 311/312: Immediate (acute) health hazard
 Delayed (chronic) health hazard
 Fire

Section 313 chemicals: Oxydemeton-methyl
 Methyl isobutyl ketone

Proposition 65: Oxydemeton-methyl

CERCLA Reportable Quantity (RQ): 5,000 lbs. of Methyl isobutyl ketone (10,000 lbs. of product)

RCRA Classification: D001 (ignitability)

TSCA Status: Exempt

National Fire Protection Association (NFPA) Hazard Classification

Health: 3
Flammability: 4
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

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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 contained herein.