



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®: **Inside the U.S.:** (800) 424-9300
Outside the U.S.: (703) 527-3887
(888) 478-0798
For Medical Emergency:

Product: Lorsban* 75WG
EPA Signal Word: Warning
Active Ingredient: Chlorpyrifos (75%)
Chemical Name: O,O-Diethyl-O-(3,5,6-Trichloro-2-Pyridinyl) Phosphorothioate
Chemical Class: Organophosphorous Pesticide

EPA Registration No.: 62719-301-10163
CAS No.: 002921-88-2

2. HAZARDS IDENTIFICATION

Physical Properties

Appearance: Tan Granule

Odor: Mild Mercaptan odor

Symptoms of Acute Exposure

Excessive exposure may produce organophosphate type cholinesterase inhibition. Symptoms may include headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. Chlorpyrifos produced mild adrenal effects when fed to rats, but only at doses that greatly exceeded any exposures that would be received during the use of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	OSHA – PEL	ACGIH – TLV	OTHER	NTP/IARC/OSHA CARCINOGEN
Active Ingredient (75%)	0.2 mg/M ³	0.2 mg/M ³	N/A	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

Eye Contact: Flush eyes with plenty of water.

Skin Contact: Wash off in flowing water or shower.

Ingestion: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Consult medical personnel and seek medical attention immediately.

Inhalation: Remove to fresh air if effects occur. Consult a physician.

4. FIRST AID MEASURES (Continued)

Note to Physician

Atropine, only by injection, is the preferred antidote. Oximes, such as 2-PAM/Protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

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

5. FIRE FIGHTING MEASURES

Flashpoint (test method): 299°F (148°C)
Flammable Limits (% in air): LFL: Not applicable
UFL: Not applicable
Autoignition Temperature: >752°F (>400°C)

Appropriate Extinguishing Media

Foam, water, carbon dioxide, or dry chemical. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

Fire Fighting Guidance

Keep people away. Isolate fire area and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environmental damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. If material is a molten, do not apply direct water stream. Use fine water spray or foam. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Dust explosion hazard may result from forceful application of fire extinguishing agents. Hand held carbon dioxide or dry chemical extinguishers may be used from small fires. Contain firewater runoff if possible.

Unusual Fire, Explosion, and Reactivity Hazards

Do not permit dust to accumulate. Dust layers can be ignited by spontaneous combustion or other ignition sources. When suspended in air dust can pose an explosion hazard. Container may vent and/or rupture due to fire.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spills or Leaks

Contain and sweep up small spills. Collect all waste material and place in sealed marked containers for disposal. Report large spills to CHEMTREC (800) 424-9300.

7. HANDLING AND STORAGE

Precautions in handling and storing

Good housekeeping and controlling of dusts are necessary for safe handling of this product. No smoking, open flames, or sources of ignition in handling and storage area. Recommend storage in a cool, dry place away from high temperatures, hot pipes, and direct sunlight. Store in original container. Do not contaminate water, food or feed.

Storage

Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. Avoid storing above 122°F for extended periods of time. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as specified in Section Thirteen. Packets may become brittle when stored below 32°F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Manufacturing and Packaging Employees

Eye/Face	Use safety glasses
Skin Protection	Use gloves impervious to this material
Respiratory Protection	Atmospheric levels should be maintained below the exposure guideline. In dusty atmospheres, use a NIOSH approved dust respirator.
Applicators/Handlers	Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Tan Granule
Specific Gravity/ Density:	0.58 g/cm ³
Solubility in H₂O: pH:	Disperses 7.84 approximately (1% aqueous suspension)

10. STABILITY AND REACTIVITY

Stability: Unstable at elevated temperatures. Avoid temperatures above 158°F (70°C). Product can decompose at elevated temperatures.

Hazardous

Polymerization: Not known to occur

Decomposition

Products: Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to hydrogen chloride, organic sulfides, and sulfur dioxide.

Conditions

To Avoid: Avoid contact with oxidizing materials, acids, and bases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion:	Oral LD ₅₀ (rats) >500 mg/kg
Inhalation:	LC ₅₀ (rats) 200 mg/M ³ – 4 hr
Skin Absorption:	LD ₅₀ (rats) >5000 mg/kg

Mutagenic Potential

Based on a majority of negative data and some equivocal or marginally positive results, chlorpyrifos is considered to have minimal mutagenic potential.

Reproductive Hazard Potential

Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.

12. ECOLOGICAL INFORMATION

Based largely or completely on information for chlorpyrifos:

Material is very highly toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ <0.1 mg/L in most sensitive species).

Based on information for the formulation:

Material is moderately toxic to birds on a dietary basis (LC₅₀ is between 501 and 1000 ppm).

Material is moderately toxic to birds on an acute basis (LD₅₀ is between 51 and 500 mg/kg).

13. DISPOSAL CONSIDERATION

Pesticide Disposal

Waste resulting from the use of this product (that cannot be used according to label instructions) may be disposed of on site or at an approved waste disposal facility.

Container Disposal

When all packets are used, dispose of empty package 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

UN3077, RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Chlorpyrifos), 9, PGIII

International Maritime Organization

UN3077, RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Chlorpyrifos), 9, PGIII, Marine Pollutant

International Civil Aviation Organization

UN3077, RQ, Environmentally Hazardous Substance, Solid, N.O.S., (Chlorpyrifos), 9, PGIII, Marine Pollutant

15. REGULATORY INFORMATION

SARA Title III Classification

Section 302/304:

N/A

Section 311/312:

Immediate (acute) health hazard

Delayed (chronic) health hazard

A fire hazard

Section 313 chemical(s):

N/A

Proposition 65

N/A

CERCLA Reportable Quantity (RQ)

2 lbs. of Lorsban (1 lb. Chlorpyrifos)

RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2

Flammability: 2

Reactivity: 1

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Prepared By:

Gowan Company
(928) 783-8844

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*Lorsban is a trademark of Dow Elanco