FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Loveland Industries, Inc.
P.O. Box 1289 • Greeley, CO 80632-1289

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976

PRODUCT NAME: PROZAP® INSECT GUARD™, MOTH GUARD, INSECT GUARD JR.
CHEMICAL NAME: Dichlorvos; DDVP; 2,2-Dichlorovinyl dimethyl phosphate
CHEMICAL FAMILY: Organophosphate Insecticide
EPA REG. NO.: 5481-338-36208
MSDS Number: 5481338-03 **MSDS Revisions:** Sections 3 and 4 **Date Of Issue:** 08/18/03 **Supersedes:** 04/25/03

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage by Weight:	CAS No.	TLV (Units)
Dichlorvos; DDVP	18.60	62-73-7	1 mg/m^3
Related compounds	1.40		
Inert Ingredients	80.00		

This product is hazardous according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

3. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Do not get in mouth. Harmful if swallowed. After prolonged storage, a small amount of liquid may form on strip. Do not get liquid on eyes.

This product is a yellow plastic strip with mild chemical odor. Primary routes of entry are Inhalation, eye contact and skin contact.

Warning Statements:

NOTE TO PHYSICIAN: This product is an organophosphate (cholinesterase-inhibiting) insecticide.
Atropine is antidotal and should be given in multiple doses as necessary until the patient is atropinized. In severe cases 2-PAM may be given provided therapy begins within 24-hours of exposure. Monitor serum and RBC cholinesterase. Morphine, theophylline, aminophylline, phenothiazines, reserpine, furosemide, or ethacrynic acid are contraindicated in organophosphate poisonings.
Administer i.v. fluids cautiously if needed to correct dehydration.
Symptoms of cholinesterase inhibition can include headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis, tearing, salivation, pulmonary edema, uncontrollable twitches, convulsions, coma, and loss of reflexes and sphincter control.

Potential Adverse Health Effects:

Eye Contact: May cause eye injury.
Skin Contact: Irritation may occur. The most likely route of entry is skin contact.
Ingestion: Contact a physician if material is ingested.
Inhalation: Contact a physician if material is inhaled and breathing is difficult.

4. FIRST AID MEASURES

If on skin or clothing: 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.

If in eyes: 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.

If swallowed: 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.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product container or label with you when calling a poison control center, or doctor, or when going for treatment

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not applicable
FLAMMABLE LIMITS (LEL & UEL): Not available.
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, alcohol foam, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: None known.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear. Avoid using heavy streams of water.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Stay well back from the fire area. In a fire situation hydrochloric acid, phosgene, phosphorus oxides and carbon oxides and other unknown hazardous materials may be formed. Incomplete combustion may lead to formation of carbon monoxide and other asphyxiants.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Release or Spill: Scoop, shovel, or sweep up and place in appropriate containers. Avoid dust generation. FOR A SINGLE STRIP: No special protective measures are required. Either rehang the strip or dispose of it according to the procedure listed above. Be sure to wash thoroughly with soap and water after handling the strip.

FOR A LARGE SPILL: Use the protective clothing listed below in Section 8. Place the spilled strips into closed containers. Clean up the area by treating with ammonia or dilute caustic solution. Prevent the runoff from getting into local water supplies. Absorb the wash liquid with solid absorbent such as kitty litter and place in a sealed container for disposal.

7. HANDLING AND STORAGE

HANDLING: Do not open or remove from packaging before ready to install. Store in a cool dry place away from children, feed and food products, seed and fertilizer. Do not store above 100° F. Do not store 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. See Section 8 for PPE.

STORAGE: Do not contaminate water supplies by handling and storage of product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Local ventilation recommended. Work in well-ventilated area or outdoors.
RESPIRATORY PROTECTION: Wear a MSHA/NIOSH approved pesticide respirator with organic vapor cartridge and pesticide prefilter if necessary.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

	OSHA PEL 8 hr TWA	**ACGIH TLV-TWA**
Dichlorvos; DDVP	1.0 mg/m^3	0.1 mg/m^3

EPA Handler Requirements **WORKER PROTECTION STANDARD 40 CFR 170**

Note, the following PPE requirements address handler/applicator requirements under FIFRA and may differ from what is felt necessary to address a clean up needs during formulation/manufacturing or other incidents with this product.

Personal protective Equipment: Applicators and other handlers must wear:
Long-sleeve shirt and long pants, chemical-resistant gloves (barrier laminate or viton) plus shoes and socks. Maintain the PPE accordingly to manufacturer's instructions. If no instructions, use detergent and hot water. Keep and wash PPE separately from other domestic laundry.

User Safety Recommendations: 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

APPEARANCE AND ODOR: Yellow plastic strip with mild chemical odor
SOLUBILITY: Negligible
SPECIFIC GRAVITY (Water= 1): 1.26 g/ml
BULK DENSITY: ±30-35 lbs/ft^3
pH: not applicable
VAPOR PRESSURE: 0.01
BOILING POINT: not applicable
PERCENT VOLATILE (by volume): 20
EVAPORATION RATE: not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Extreme heat, sparks and open flame.
INCOMPATIBILITY: Strong oxidizers, acids, bases.

HAZARDOUS DECOMPOSITION PRODUCTS: CO_2, CO, NO_x, phosphorus containing compounds and other unknown hazardous material may be formed in a fire situation. Incomplete combustion may lead to formation of carbon monoxide and/or other asphyxiants.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50} (rat): (Dichlorvos (DDVP) technical) 56 mg/kg
Acute Dermal LD_{50} (rabbit): (Dichlorvos Technical): 205 mg/kg
Eye Irritation (rabbit): May cause eye irritation.
Skin Irritation (rabbit): Caused mild irritation.
Inhalation LC_{50} (rat): 140mg/m^3 (whole body, mist).
Ingestion: May cause stomach distress, nausea or vomiting.
Carcinogenic Potential: Dichlorvos has been listed by IARC as a possible human carcinogen (Group 2B). EPA has classified Dichlorvos (DDVP) as a Category C possible carcinogen.

12. ECOLOGICAL INFORMATION

Do not apply this product directly to water. This product is toxic to fish and other aquatic life and toxic to birds. Do not contaminate surface water or ditches when disposing of equipment wash water or the used container.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations.
If a household waste, wrap strip in paper, place in a sealed plastic bag, and place in the trash. If large numbers of strips are to be discarded and disposed of consult with local authorities prior to placing in a sanitary landfill or by other procedures approved by local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY US DOT

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OTHER THAN POISON (NMFC 102120; CLASS: 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA			HMIS	
2	Health	0 Least	2	Health
0	Flammability	1 Slight	0	Flammability
0	Instability	2 Moderate	0	Reactivity
		3 High	H	PPE
		4 Severe		

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate	Y	Fire	N	Sudden Release of Pressure	N
Delayed	N	Reactive	N		

Reportable Quantity (RQ) under U.S. CERCLA: Dichlorvos (DDVP) (CAS: 62-73-7) 10 pounds
SARA, Title III, Section 313: Dichlorvos (CAS: 62-73-7) 20%
RCRA Waste Code: Not listed.
CA Proposition 65: This product contains Dichlorvos (DDVP), (CAS: 62-73-7), a chemical known to the State of California to cause cancer.

16. OTHER

MSDS STATUS: Sections 3 and 4

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Loveland Industries, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. **In no event will Loveland Industries, Inc. be responsible for any damages of any nature including, without limitation, direct, special or consequential, resulting from the use, reliance upon, or the accuracy, completeness or furnishing of such Information.** NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.