

**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:**

Chem-Tech, Ltd.  
Des Moines, IA 50321

**24-Hour Emergency Phone:** 1-800-424-9300

**PRODUCT NAME:** PROZAP® INSECT GUARD™  
**CHEMICAL NAME:** Dichlorvos; DDVP; 2,2-Dichlorovinyl dimethyl phosphate  
**CHEMICAL FAMILY:** Organophosphate Insecticide  
**EPA REG. NO.:** 5481-338-47000

**MSDS Number:** 501      **MSDS Revisions:** New ANSI format; review of information      **Date Of Issue:** 04/25/03      **Supersedes:** 12/31/97

**2. COMPOSITION, INFORMATION ON INGREDIENTS**

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Dichlorvos ; DDVP	18.60	62-73-7	1 mg/m <sup>3</sup>
Related compounds	1.40		none established
Inert Ingredients	80.00		

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

**3. HAZARDS IDENTIFICATION SUMMARY**

**CAUTION: KEEP OUT OF REACH OF CHILDREN.**

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**

**Eyes:** Flush eyes with large amounts of water for 15-20 minutes. Consult a physician if irritation persists.  
**Skin:** Remove all contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a physician for treatment advice.  
**Ingestion:** If conscious induce vomiting. Do not give anything by mouth to an unconscious person. Call a physician to get medical attention; the emergency telephone number is 1-800-301-7976  
**Inhalation:** Move subject to fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult, give oxygen. Get medical attention immediately.

**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, phosphine, 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:** 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.

**OTHER PRECAUTIONS:** 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.

	<b>OSHA PEL 8 hr TWA</b>	<b>ACGIH TLV-TWA</b>
Dichlorvos; DDVP	1.0 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

**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**

<b>APPEARANCE AND ODOR:</b> Yellow plastic strip with mild chemical odor	<b>SOLUBILITY:</b> Negligible
<b>SPECIFIC GRAVITY (Water= 1):</b> 1.26 g/ml	<b>pH:</b> not applicable
<b>VAPOR PRESSURE:</b> 0.01	<b>BULK DENSITY:</b> ±30-35 lbs/ft <sup>3</sup>
<b>PERCENT VOLATILE (by volume):</b> 20	<b>BOILING POINT:</b> not applicable
<b>Note:</b> These physical data are typical values based on material tested but may vary from sample to sample.	<b>EVAPORATION RATE:</b> not established
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.	

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable

**INCOMPATIBILITY:** Strong oxidizers, acids, bases.

**CONDITIONS TO AVOID:** Extreme heat, sparks and open flame.

**Hazardous Decomposition Products:** CO<sub>2</sub>, CO, NO<sub>x</sub>, 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**

<b>Acute Oral LD<sub>50</sub> (rat):</b> (Dichlorvos (DDVP) technical) 56 mg/kg	<b>Acute Dermal LD<sub>50</sub> (rabbit):</b> (Dichlorvos Technical): 205 mg/kg
<b>Eye Irritation (rabbit):</b> May cause eye irritation.	<b>Skin Irritation (rabbit):</b> Caused mild irritation.
<b>Inhalation LC<sub>50</sub> (rat):</b> 140mg/m <sup>3</sup> (whole body, mist).	<b>Ingestion:</b> May cause stomach distress, nausea or vomiting.
<b>Carcinogenic Potential:</b> 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**

<b>NFPA &amp; HMIS Hazard Ratings:</b>	<b>NFPA</b>		<b>HMIS</b>
	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:** New ANSI Format; review of information

**PREPARED BY:** Registrations and Regulatory Affairs

**REVIEWED BY:** Environmental/ Regulatory Services

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