1. PRODUCT IDENTIFICATION

Product Name: Prozap® Insect Guard

Product Number(s): 5019510, 5019520, 5019530, 5019540, 5019550

Use: Insecticide

Manufacturer: AMVAC Chemical Corporation
4100 East Washington Boulevard
Los Angeles, CA 90023

Manufacturer Phone: 1-888-462-6822

Distributor: ChemTech, Ltd.
1006 North Highway 5
Pleasantville, IA 50225

Distributor Phone: 1-800-477-8201

Emergency Phone: Medical: 1-888-681-4261 (United States and Canada)
Spill: 1-800-424-9300 (United States)

2. HAZARDS IDENTIFICATION

Classifications:
- Acute Toxicity, Oral: Category 4
- Acute Toxicity, Inhalation: Category 4
- Skin Corrosion/Irritation: Category 2
- Serious Eye Damage/Eye Irritation: Category 2B
- Skin Sensitization: Category 1
- Carcinogenicity: Category 2
- Environmental Hazards: Category 1

Signal Word (EPA): WARNING
Signal Word (OSHA): WARNING

Hazard Statements:
- Harmful if swallowed.
- Causes skin irritation.
- May cause allergic skin reaction.
- Causes eye irritation.
- Harmful if inhaled.
- Suspected of causing cancer.
- Very toxic to aquatic life.

Hazard Symbols:
Precautionary Statements:

Obtain special instructions before use. 
Do not handle until all safety precautions have been read and understood. 
Do not breathe dust. 
Wash hands and face thoroughly after handling. 
Do not eat, drink or smoke when using this product. 
Use only outdoors or in a well-ventilated area. 
Wear protective gloves, protective clothing, eye protection. 
If on skin: Wash with plenty of soap and water. 
If inhaled: Remove person to fresh air and keep comfortable for breathing. 
If exposed or concerned: Get medical advice/attention. 
Call a poison control center, doctor or 1-888-681-4261 if you feel unwell. 
Take off immediately all contaminated clothing and wash it before reuse. 
Store locked up. 
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: 
This product presents no significant hazards under normal conditions of use. 
May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos (DDVP)</td>
<td>DDVP</td>
<td>62-73-7</td>
<td>18.6 - &lt;20.0%</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling 1-888-681-4261, a poison control center or doctor, or going for treatment.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the air of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin Contact: Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye Contact: Do not rub eyes. Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomit occurs, keep head low so that stomach content doesn’t get into the lungs. Do not induce vomiting without advice from poison control center. Get medical advice/attention if you feel unwell.

Most Important Symptoms/Effects:

This product is a Cholinesterase Inhibitor. Preexisting skin or respiratory disorders may be aggravated by exposure to components of this product. Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) chronic alcoholism, malnutrition, dermatomyositis, existing toxicity from exposure to carbon disulfide, benzalkonium salts, organic mercury compounds, ciguatoxins or solanines, and (for RBC) hemolytic anemia. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivating and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusing; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin.
Indication of immediate medical attention and special treatment needed:

Atropine is the specific therapeutic antagonistic of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minute intervals, in doses of 1 to 2 mg, until complete atropinization has occurred. Pralidoxime chloride (2-PAM) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, initial dose of 1 gram 2-PAM should be injected, preferably as an infusion in 250cc of saline over a 15 to 30 minute period. If this is not practical, a 2-PAM may be administered slowly by intravenous injection as a 5 percent solution in water over not less than two minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not be relieved. For infants and children the dose of 2-PAM is 0.25g. Morphine is an improper treatment.

Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may, without warning, cause prolonged susceptibility to very small doses of any cholinesterase inhibitor. Allow no further exposure until cholinesterase regeneration has been attained, as determined by blood test.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Water spray, water fog, foam, dry chemical powder, carbon dioxide (CO₂)

Specific Hazards:

During a fire, gases hazardous to health may be formed. Hydrogen chloride, carbon oxides and unidentified organic compounds may be formed when it is heated excessively or burned.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or product of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, see Section 8.

Methods and materials for containment and cleaning up:

Pick up strips for reuse or disposal. Wash thoroughly with soap and water after handling the strip(s). For waste disposal see Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

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

Conditions for safe storage, including any incompatibilities:

Store locked up.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limit

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>OTHER</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos (DDVP)</td>
<td>1 mg/m³ / 0.1 mg/m³</td>
<td>1 mg/m³</td>
<td>Not Established</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Eye protection is not required for normal handling. Where eye contact is likely, wear tight-fitting chemical goggles.

Skin Contact: Gloves are not required for normal handling. Where heavy contact is likely, wear chemical resistant (such as nitrile or butyl) gloves.

Inhalation: Respiratory protection is not required for normal handling. In the event of an unusual dust exposure, use engineering controls or a NIOSH-approved particulate respirator (N, P, R, or HE filter) to keep exposure below the Occupational Exposure Limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid, rectangular strip – yellow in color
Odor: Mild chemical odor
pH: Not Available
Melting Point: Not Available
Freezing Point: -76ºF (-60ºC) estimated
Boiling Point and Boiling Range: Not Available
Flash Point (Test Method): 175ºF (79ºC) estimated
Flammable Limits (% in air): Not Available
Flammability: Not Available
Vapor Pressure: 1.00E-02 mm Hg (DDVP)
Vapor Density: Heavier than air
Relative Density: 66.68 lb/ft³
Solubility (ies): Negligible
Partition Coefficient: Not Available
Viscosity: Not Available

10. STABILITY AND REACTIVITY

Reactivity: Not reactive
Chemical Stability: Stable under normal use and storage conditions
Possible Hazardous Reactions: Will not occur
Conditions to Avoid: None known
Incompatible Materials: Strong acids, Oxidizing agents, strong bases.
Hazardous Decomposition Products: None known
11. **TOXICOLOGICAL INFORMATION**

**Health Effects Information**

**Likely routes of exposure:** Inhalation, Ingestion, Skin, Eyes

**Symptoms of exposure:**

This product is a Cholinesterase Inhibitor. Preexisting skin or respiratory disorders may be aggravated by exposure to components of this product. Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) chronic alcoholism, malnutrition, dermatomyositis, existing toxicity from exposure to carbon disulfide, benzalkonium salts, organic mercury compounds, ciguatoxins or solanines, and (for RBC) hemolytic anemia. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivating and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusing; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin.

**Delayed, immediate and chronic effects of exposure:** Not Available

**Numerical Measures of Toxicity (Acute Toxicity/Irritation Studies – Finished Product)**

- **Ingestion:** Oral LD\(_{50}\) (Rat, Female): 382 mg/kg body weight
  Oral LD\(_{50}\) (Rat, Male): 679 mg/kg body weight

- **Dermal:** Dermal LD\(_{50}\) (Rabbit): 27400 mg/kg body weight (intact abdominal skin)

- **Inhalation:** Inhalation LC\(_{50}\) (Rat): Not Available.

- **Eye Contact:** Causes Eye Irritation

- **Skin Contact:** Causes Skin Irritation

- **Skin Sensitization:** Causes Skin Irritation

**Reproductive/Developmental Effects**

This product is not expected to cause reproductive or developmental effects.

**Chronic/Subchronic Toxicity Studies**

Not Available.

**Carcinogenicity**

Suspected of Causing Cancer

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NTP / IARC / OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos (CAE 62-73-7)</td>
<td>2B</td>
</tr>
</tbody>
</table>

**Other Toxicity Information**

Not Available.

**Toxicity of Other Components**

Not Applicable

**Target Organs**

**Active Ingredients**

Not Applicable
12. ECOLOGICAL INFORMATION

Very toxic to aquatic life. This product is toxic to fish, birds and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes.

13. DISPOSAL CONSIDERATIONS

Disposal: Dispose of product and packaging in the trash. Wrap the strip in paper and place in a sealed plastic bag before putting in the trash.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification
- Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S. (Dichlorvos), Marine Pollutant
- Hazard Class: 9
- UN Number: 3077
- Packing Group: III
- Label: 9
- Special Instructions: Read safety instructions, SDS and emergency procedures before handling.

IMDG Classification
- Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S. (Dichlorvos), Marine Pollutant
- Hazard Class: 9
- UN Number: 3077
- Packing Group: III
- Label: 9
- Special Instructions: Read safety instructions, SDS and emergency procedures before handling.

IATA Classification
- Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S. (Dichlorvos), Marine Pollutant
- Hazard Class: 9
- UN Number: 3077
- Packing Group: III
- Label: 9
- Special Instructions: Read safety instructions, SDS and emergency procedures before handling.

Canadian Classification
- Proper Shipping Name: Environmentally hazardous substance, solid, N.O.S. (Dichlorvos), Marine Pollutant
- Hazard Class: 9
- UN Number: 3077
- Packing Group: III
- Label: 9
- Special Instructions: Read safety instructions, SDS and emergency procedures before handling.
15. REGULATORY INFORMATION

Pesticide Registration

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Caution: Harmful if swallowed or absorbed through skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing. All handlers (including applicators) must wear shoes plus socks, and gloves. Any person who retrieves carcasses or unused bait following application of this product must wear waterproof gloves.

EPA Registration Number: 5481-533-47000

EPA SARA Title III Classification

Section 311/312 Hazard Classes: Dichlorvos (DDVP, CAS 62-73-7)
Section 313 Toxic Chemicals: Dichlorvos (DDVP, CAS 62-73-7)
California Proposition 65: This product contains Dichlorvos (DDVP, CAS 62-73-7), a chemical known in the State of California to cause cancer.

CERLA/SARA 302 Reportable Quantity (RQ): Dichlorvos (DDVP, CAS 62-73-7)
RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable
TSCA Status: Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS Hazard Ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Other: 4 - Extreme

For Non-Emergency Questions About This Product Call: 1-800-621-8829
Neogen Corporation
Lexington, KY

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