

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: PI-IS (Plato Industries Insecticide Strip)

General use: Insecticide

Product Description: Red plastic square with a mild chemical odor.

EPA Registration Number: 65458-5

MSDS Revision Date: January 10, 2024

Manufacturer:

PLATO INDUSTRIES, LTD.

2020 Holmes Road

Houston, Texas 77045

Tel: (281) 797-5291

E-mail: info@platoindustries.com

Emergency Telephone Numbers:

Manufacturer: (281) 797-5291

Transportation (24 hours)

CHEMTREC: 800-424-9300

Medical (24 hours)

HIS: 800-228-5635, Ext. 169

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>WT%</u>	<u>CAS. No.</u>
2,2-Dichlorovinyl dimethyl phosphate (DDVP, DICHLORVOS)	6.98%	62-73-7
Related Components	0.52%	
Inert Ingredients	92.50%	

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

<u>Component</u>	<u>Hazard</u>	<u>OSHA PEL*</u>	<u>ACGIH TLV*</u>
2,2-Dichlorovinyl dimethyl phosphate (DDVP)	POISON Cholinesterase inhibitor, Possible carcinogen	1.0 mg/m ³	0.90 mg/m ³

* **Exposure Limits 8 hrs. TWA (ppm)**

3. **HAZARDOUS IDENTIFICATION**

EMERGENCY OVERVIEW:

CAUTION: Contains a cholinesterase Inhibitor. Repeated inhalation or skin contact with Dichlorvos (DDVP) may, without symptoms, progressively increase susceptibility to Dichlorvos (DDVP) poisoning.

Toxic to fish, birds and other wildlife. Do not contaminate water bodies.

POTENTIAL HEALTH EFFECTS

Route(s) of Entry: May be fatal if DDVP is absorbed through the eye or skin, is ingested or is inhaled. May produce acute cholinesterase depression. Under normal use conditions the amount of DDVP given off by strip products is not sufficient to cause eye or inhalation hazards.

Signs of Acute Overexposure: Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur.

Signs of Chronic Overexposure: Repeated exposure to small doses of DDVP and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

Carcinogenicity: EPA has classified DDVP (Dichlorvos) as being a category C, a possible carcinogen. IARC lists DDVP (Dichlorvos) as being possible carcinogen to humans (Group 2B). CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.

Medical Conditions Aggravated by Exposure: Pre-existing conditions, which lower cholinesterase levels, increase vulnerability to cholinesterase depression. These include: (for plasma) genetic cholinesterase deficiency; advanced liver disease; chronic alcoholism; malnutrition; dermatomyositis; existing toxicity from exposure to carbon disulfide; benzalkonium salts, organic mercury compounds, ciguatoxins or solanines; and (for RBC) hemolytic anemia's.

4. **FIRST AID MEASURES**

DDVP IS A CHOLINESTERASE INHIBITOR. A PHYSICIAN SHOULD BE CONTACTED IN ALL CASES OF EXPOSURE TO DDVP AND ITS FORMULATIONS.

Eyes: Immediately flush eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire of the entire surface of the eyes and lids with water. Contact a physician immediately. If there will be a delay in getting medical attention, rinse the eyes for at least another 15 minutes.

Inhalation: Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately.

Ingestion: Induce vomiting immediately by giving two glasses of water and sticking finger down the throat. Never give anything by mouth to an unconscious person. Contact a physician immediately.

Skin: Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. Remove contaminated clothing. Do not attempt to neutralize with chemical agents. Wash clothing before reuse. If skin irritation develops, contact a physician immediately.

Note to Physician: This is an Organophosphate (OP) Insecticide. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. The Health Information Service (HIS) is available for further recommendations regarding control of poisoning, emergency treatment, and other information regarding the toxicity of DDVP (Dichlorvos). The toll free number for HIS is 1-800-228-5635, ext. 169. Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice. Moderately severe poisoning: use 0.4-2.0 mg in adults or 0.05 mg/kg in children. Repeat every 15 minutes until atropinization is achieved. Severe poisoning may require larger doses. Cholinergic toxicity may recur as atropinization wears off, monitor patient closely. Draw blood for RBC and plasma cholinesterase. In addition, pralidoxime (2-PAM) is indicated during the first 36 hours in severe poisoning. Slow IV administration (no less than 2 minutes) of 1 gm in adults or 20-50 mg/kg in children may be repeated in 1 to 2 hours if muscle weakness, twitching and/or respiratory depression persist. Avoid morphine, aminphylline, phenothiazines, reserpine, furosemide and ethacrynic acid.

Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) followed by water (2 glasses for adults, 1 glass for children) is indicated. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: Not Applicable

Autoignition Temperature: Not Applicable

Flammable Limits:

Lower Flammable Limit: None established

Upper Flammable Limit: None established

Flammability: This is a combustible solid that will support fire if it is preheated (NFPA rating=1).

Explosivity

Mechanical Impact: Not Explosive

Static Charge: Will not occur

Hazardous Combustion Products: This product will emit toxic fumes when burned, including hydrogen chloride and carbon monoxide. Vapors of the unburned product may also be hazardous. Contact with the fumes and vapors should be avoided by staying upwind and by wearing impervious clothing and full-face respirators.

Extinguishing Media: Dry chemical, carbon dioxide, foam and water fog.

Fire Fighting instructions: Evacuate the area. Use self-contained breathing apparatus. Water spray and fog may be helpful in reducing flame intensity and absorbing irritating fumes. Treated area should be diked to prevent runoff.

6. ACCIDENTAL RELEASE MEASURES

General: clean up spilled chips immediately. Chips that have been dropped should be picked up for reuse or disposal.

Small Spill: For a single chip no special protective measures are required. Either use the chip or dispose of it according to the procedure listed under waste disposal. Be sure to wash thoroughly with soap and water after handling chips.

Large Spill: Use personal protective equipment to prevent contact with chips. Pick up the spilled chips and place them into closed containers. Clean up the area by treating with dilute ammonia or caustic solution (5% solution). Prevent runoff from getting into local water supplies. Absorb the wash liquid on solid absorbent such as Kitty Litter, and place the waste into a sealed container for disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes or clothing. Wash hands, face and arms before eating or handling food. Store in original unopened container, away from foodstuffs and feed. Avoid areas of extreme heat. Keep away from small children.

Storage: Store in original unopened package until ready to use. Keep away from heat and store away from children, foodstuffs and feed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: General ventilation is sufficient for use of this product. During manufacturing of this product sufficient ventilation is required to keep exposures to levels below the TLV.

Respiratory Protection: A properly FIT-TESTED NIOSH/MSHA approved respirator fitted with organic vapor cartridges is required during manufacturing of this product if the ventilation is insufficient to keep exposures below TLV. No respiratory protection is required for normal use and handling of individual chips.

Skin Protection: Protective gloves are not needed for ordinary use of this product, but the chips must be handled per instruction on the label. Impervious gloves are required for prolonged or repeated exposures to this product.

Eye Protection: Eye protection is not needed for ordinary use of this product. Safety glasses with side shields are required for prolonged or repeated exposures to this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Red plastic square (1"x1")
Odor:	Mild chemical odor
Odor Threshold:	Not Available
Boiling Point:	Not Applicable
Freezing/Melting Pot:	Not Available
Specific Gravity:	1.26 g/cm ³
Density:	68.66 lb/ft ³
Vapor Pressure (mm/Hg)	0.01
Vapor Density:	Heavier than air
Percent Volatile by Vol:	6.98%
Solubility in Water:	Negligible
Solubility (other):	This product is soluble in aromatic solvents
Partition Coefficient (O/W):	Not Applicable
pH:	Not Applicable
Evaporation Rate:	10 to 100 mg/day of DDVP

10. STABILITY AND REACTIVITY

Chemical Stability (conditions to avoid): Stable under normal use and storage conditions.

Incompatibility: Strong acids, oxidizers, and strong bases.

Hazardous Decomposition Products: Heating to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, phosphorous oxides and carbon oxides.

Hazardous Polymerization: This product will not polymerize.

11. TOXICOLOGY INFORMATION

No information is available for the product. Below are the values established for DDVP, the active ingredient.

Ingestion:	Oral LD ₅₀ (rat):	56 mg/kg
Inhalation:	Inhalation LC ₅₀ (rat):	140 mg/m ³ (1 hr, whole body)
Dermal:	Skin LD ₅₀ (rabbit):	205 mg/kg
Irritation:	Eye Irritation:	Irritant
	Skin Irritation:	Irritant
Sensitization:	Skin sensitization: (guinea pig)	Possible sensitizer
Teratogenicity:	No evidence of teratogenicity in laboratory animals.	
Mutagenicity:	No in vivo mutagenicity in mammalian assay systems.	
Carcinogenicity:	EPA has classified DDVP (Dichlorvos) as being in Category C, a possible carcinogen. IARC list DDVP (Dichlorvos) as being possible carcinogenic to humans (Group 2B). CARE SHOULD BE EXERCISED IN HANDLING DDVP AND ITS FORMULATIONS.	
Productive Toxicity:	Reproductive effects have only been seen at a dose level, which produced a generalized toxicity in the rat.	
Toxicologically Synergistic Products:	No data available.	

12. ECOLOGICAL INFORMATION

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 wash waters or waste.

13. DISPOSAL CONSIDERATIONS

As a household waste, the spent strip should be wrapped in paper, placed in a sealed plastic bag, and put into the trash. If large numbers of chips are to be discarded the local authorities or the EPA should be contacted to find out the current regulations.

14. TRANSPORTATION INFORMATION

DOT Class:	None
UN Number:	None
IMDG Class (sea)	None
Marine Pollutant:	Yes
Packing Group:	None
Hazard Label(s):	None
ADR Class (road):	None
Proper shipping name(s):	None
Reportable Quantity:	Yes

NOT RESTRICTED

PACKAGING

General Description: Paper-Foil pouch containing 100 each Strips in a cardboard container. Case quantities of 150 pouches packed in cardboard box.

15. REGULATORY INFORMATION

U.S. Federal Regulations: This product is registered under EPA/FIFRA Regulations. It is in Violation of Federal Law to use this product in any manner inconsistent with its labeling.

SARA Title III Data

Section 311 & 312 Hazard Categories:

Immediate Health Hazard: Yes

Delayed Health Hazard: Yes

Fire Hazard: No

Reactive Hazard: No

Sudden Pressure Release Hazard: No

Section 302 Extremely Hazardous Substance: DDVP (CAS No. 62-73-7) TPQ 1000 lbs.

Section 313 Toxic Chemicals: DDVP (CAS No. 62-73-7)

CERCLA Reportable Quantities (RQ): DDVP – 10 lbs., Product – 53.8 lbs

16. OTHER INFORMATION

MSDS Status:

Date This Revision: 1/10/24

Date Previous Revision: None

Reasons for revision: New product

Disclaimer:

This information is provided for the limited guidance to the user. While Plato Industries believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for the particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.
