

**MATERIAL SAFETY DATA SHEET**

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General Information No.  
In Case of Emergency, Call  
PROSAR:

229-245-8845  
888-875-1724

**I. PRODUCT IDENTIFICATION**

Product Name: PEGASUS HPX  
Active ingredients: Chlorothalonil (54.0%)  
Active Ingredients IUPAC Name: Tetrachloroisophthalonitrile

**II. COMPOSITION/INFORMATION ON INGREDIENTS**

| <u>Component</u>             | <u>CAS Number</u> | <u>% by Wt.</u> |
|------------------------------|-------------------|-----------------|
| Tetrachloroisophthalonitrile | 1897-45-6         | 54.0 %          |

**III. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. DO NOT breathe spray mist.

**General Information**

1-Slight Health Hazard    0-Noncombustible    0-Nonreactive

Above: Ratings based on NIOSH "Identification System for Occupationally Hazardous Materials" (1974).

**IV. FIRST AID MEASURES**

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Persons having a temporary allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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**V. FIRE FIGHTING MEASURES**

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| Flash point:                        | Non-flammable   |
| Autoignition Temperature:           | Not Applicable  |
| Flammable Limits (LFL-UFL):         | Noncombustible  |
| Unusual Fire and Explosion Hazards: | May decompose under fire conditions emitting toxic and irritant gases (i.e. hydrogen chloride) to the respiratory tract |
| Means of Extinction:                | Carbon dioxide, foam, dry chemical or water   |
| Special Fire Fighting Procedures:   | Self-contained breathing apparatus should be provided for firefighters.   |

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**VI. ACCIDENTAL RELEASE MEASURES**

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Steps To Be Taken If Material Is Released Or Spilled:

This product is toxic to fish. Keep out of lakes, streams or ponds. Contain spills. Remove as much as possible by shoveling and sweeping. Place contaminated materials in closed, labeled containers and store in a safe place to await proper disposal. Do not contaminate water while cleaning equipment or disposing of wastes. Persons performing this work should wear adequate personal protective equipment and clothing.

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**VII. HANDLING AND STORAGE**

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DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Pesticide Storage:** Store in a cool place. Protect from excessive heat.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:** DO NOT reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Returnable Refillable Container:** If Pegasus HPX is packaged in a returnable refillable container, then, after use, do not rinse container. Return container intact to point of purchase. This container must only be refilled with Pegasus HPX. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Before refilling, inspect thoroughly for damage such as cracks, punctures, abrasions, and damaged or worn threads on closure devices. Check for leaks after refilling and before transport.

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**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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| Ventilation Requirements:               | Good industrial hygiene practice dictates that indoor work areas be isolated and provided with adequate local exhaust ventilation. Work upwind in out-of-doors batch operations.  |
| Specific Personal Protective Equipment: |   |
| Respiratory:                            | NIOSH - approved dust respirators or pesticide respirators  |
| Eye:                                    | Chemical goggles or face shields.   |
| Gloves:                                 | Wear protective chemical-resistant gloves to minimize skin contact. Special precautions should be taken so product cannot get inside gloves.  |
| Other Clothing and Equipment:           | Protective clothing consisting of long sleeve shirt and long pants should be worn when handling this product. The clothing should be changed at least daily. Persons exposed routinely to this active material should shower prior to leaving work each day. Safety shower and eye-wash stations should be provided in all areas in which this product is stored and/or handled. Contaminated clothing should be removed and washed thoroughly before re-using. |

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**IX. PHYSICAL AND CHEMICAL PROPERTIES**

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|---|---|
| Boiling Point (760 mm Hg):                | 100°C (lowest boiling component)                  |
| Melting Point:                            | Not Applicable                                    |
| Freezing Point:                           | -5°C  |
| Vapor Pressure:                           | *5.72 x 10 <sup>-7</sup> torr @ 25°C              |
| Vapor Density (Air = 1):                  | Not Determined                                    |
| Solubility in H <sub>2</sub> O, % by Wt.: | *0.6 - 0.9 ppm. Formulation: dispersible in water |
| % Volatiles by Vol.:                      | 45  |
| Evaporation Rate (Butyl Acetate = 1):     | Not Determined                                    |
| Appearance and Odor:                      | Liquid, off-white, faint odor                     |
| Density:                                  | 1.271 g/mL  |
| pH:                                       | 4.46  |
| Viscosity:                                | Centistokes: 34.634 (20°C); 17.874 (40°C)         |

\*Denotes data developed from technical active ingredient.

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**X. STABILITY AND REACTIVITY**

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| Conditions Contributing to Instability:              | Under normal use conditions, this product is stable.   |
| Incompatibility:                                     | Not known.   |
| Hazardous Decomposition Products:                    | May decompose under fire conditions emitting gases and vapors (i.e. hydrogen chloride) which may be toxic and irritating to the respiratory tract. |
| Conditions Contributing To Hazardous Polymerization: | Material not known to polymerize.  |

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**XI. TOXICOLOGICAL INFORMATION**

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| Oral LD <sub>50</sub> (rat):                | 3,260 mg/kg (U.S. EPA Category III)  |
| Dermal LD <sub>50</sub> (rabbit) :          | >2,020 mg/kg (U.S. EPA Category III)   |
| Inhalation (4-hour) LC <sub>50</sub> (rat): | 0.11 mg/liter of air (U.S. EPA Category II)  |
| Primary Dermal Irritation Index (rabbit):   | Non-irritating (Draize 0.0 / 8.0) (U.S. EPA Category IV)   |
| Primary Eye Irritation (rabbit)             | Eye irritant; reversible corneal, iridal and conjunctival effects in unwashed eyes; minimal irritation in washed eyes (U.S. EPA Category III)  |
| Dermal Sensitization:                       | Non-sensitizer   |
| Effects of Chronic Overexposure:            | Repeated excessive dermal exposure may cause marked skin irritation and may increase the possibility of allergic reactions. Studies on rats and mice have suggested that technical chlorothalonil, when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action from which threshold levels have been established on rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels - in addition, surveillance of chlorothalonil plant workers for many years has not demonstrated any increase in oncogenic potential to humans. |

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**XII. ECOLOGICAL INFORMATION**

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**SUMMARY OF EFFECTS**

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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| Eco-Acute Toxicity:<br>(Chlorothalonil)   | Green Algae 5day EC <sub>50</sub> : 190 ppb<br>Invertebrates (Water flea) 48-hour EC <sub>50</sub> : 70 ppb<br>Fish (Rainbow trout) 96-hour LC <sub>50</sub> : 47ppb<br>Fish (Bluegill sunfish) 96-hour LC <sub>50</sub> : 26.3 ppb<br>Birds (8-day dietary – Bobwhite quail) LC <sub>50</sub> : 5200 ppm<br>Birds (9-day dietary – Mallard Duck) LC <sub>50</sub> : > 10,000 ppm<br>Bees 48 – hour LC <sub>50</sub> : >181 ug/bee |
| Eco-Chronic Toxicity:<br>(Chlorothalonil) | Bobwhite quail reproduction 21-week LOEL: 250 ppm<br>Mallard duck reproduction 19-week LOEL: 100ppm<br>Fathead minnow 168-day LOEC: 6.5 ppb  |

Environmental Fate (Chlorothalonil): The information presented here is for the active ingredient, chlorothalonil. Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

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**XIII. DISPOSAL CONSIDERATIONS**

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Waste Disposal Method:

Waste portions of this product and contaminated absorbent materials may be disposed of by incineration provided the following conditions are observed:

Incinerate in a suitable oven fed by a mixture of air and methane, at 1100-1200° C temperature; the HCl which may form in the incinerator exhaust gas must be conveyed into an aqueous absorption system containing 18-20% of Ca(OH)<sub>2</sub>.

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**XIV. TRANSPORT INFORMATION**

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This product is regulated for transportation purposes as follows:

| <i>MODE</i>  | <i>BULK(&gt; 119 GALLONS)</i> | <i>NON-BULK (&lt; 119 GALLONS)</i> |
|--------------|-------------------------------|------------------------------------|
| IATA (Air):  | Yes                           | No                                 |
| IMO (Water): | Yes                           | No                                 |
| DOT (Land):  | Yes                           | No                                 |

Proper Shipping Name: Environmentally hazardous substance, liquid, N.O.S. (chlorothalonil), 9, UN3082, PG III, ERG # 171.

Special Provisions: Marine pollutant

Freight class: NMFC Item #102100

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**XV. REGULATORY INFORMATION**

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SARA Title III Information

313 Inventory Ingredients: Chlorothalonil (54% wt/wt)

312 Hazards Classification: Acute and Chronic Health (See Section III for Hazard Information)

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**XVI. OTHER INFORMATION**

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**WARRANTY AND LIMITATION OF DAMAGES**

**CONDITIONS OF SALE:** PHOENIX ENVIRONMENTAL CARE LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to PHOENIX ENVIRONMENTAL CARE LLC. **PHOENIX ENVIRONMENTAL CARE LLC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. To the extent consistent with applicable law PHOENIX ENVIRONMENTAL CARE LLC SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND PHOENIX ENVIRONMENTAL CARE LLC'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. To the extent consistent with applicable law BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. PHOENIX ENVIRONMENTAL CARE LLC DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.**