

Material Safety Data Sheet

Effective Date: 13-APR-2004
Product: WhirlWind

I. IDENTIFICATION

Chemical Name: Chlorpyrifos
Chemical Family: Organophosphorus Pesticide
Formula: Not applicable, formulated mixture.
Synonyms: None
CAS Number: 2921-88-2 (chlorpyrifos)
EPA Number: 62719-220-5905

II. PHYSICAL DATA

Boiling Point: 290 Degrees F. (solvent)
Freezing Point: Not determined
Spec Gravity: 1.079 gms/cc
Vapor Pressure: <10 mmHg@25 Deg. C.
Vapor Density: Not determined
Solubility: Emulsifiable
Volatiles: Not determined
Evaporation: Not determined
Melting Point: Not applicable
Appearance: Red liquid with solvent-type odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Chlorpyrifos	2921-88-2	44.90	0.2 mg/m3	Toxic; Moderate eye & skin irritant
Inert ingredients, including aromatic hydrocarbons (see below).		55.10		Combustible; Skin & eye irritant
Xylene-range aromatic solvent	64742-95-6		N/E	
Trimethylbenzene	95-63-6		25 ppm	
Cumene	98-82-8		50 ppm	
Xylene	1330-20-7		100 ppm	
Ethyltoluene	25550-14-5		10 ppm	

IV. FIRE AND EXPLOSION HAZARD

Flash Point: 106 Degrees F.
Autoignition Temp: Not determined
Flammable Limit: 1% (LFL); 6% (UFL)
Extinguishing Media: Foam, carbon dioxide and dry chemical.

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Special Fire Fight Proc: Use positive-pressure self-contained breathing apparatus and full protective clothing.

Fire and Expl Hazard: Toxic, irritating gases may be formed under fire conditions. Rapid decomposition above 320-392 Deg. F. can occur. Violent rupture due to over-pressurization may occur during fire.

V. HEALTH HAZARD

Carcinogen Information: Not listed

ACUTE EFFECTS OF OVER EXPOSURE

Swallowing: Acute Oral LD50 (rats) = 776 mg/kg (male), 300 mg/kg (female); moderately toxic. Small amounts swallowed incidental to use are not likely to cause injury. Swallowing large amounts may cause injury or death. Aspiration may cause injury or death.

Skin Absorption: Acute Dermal LD50 (male rat) > 5000 mg/kg. A single prolonged exposure is not likely to result in absorption through the skin in harmful amounts.

Inhalation: Acute Inhalation LC50 (rat) = 2.7 mg/L/4 hr. Excessive exposure may produce organophosphate-type cholinesterase inhibition. Respiratory distress and central nervous system depression may occur with excessive solvent exposure.

Skin contact: Acute Dermal LD50 (male rat) > 5000 mg/kg. Moderate skin irritation may occur with prolonged exposure. Not a sensitizer.

Eye Contact: May cause moderate eye irritation and/or corneal injury with contact. Vapors may cause irritation.

Chronic Effects: Excessive exposure may cause organophosphate-type cholinesterase inhibition. Signs and symptoms of excessive exposure are headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating or pinpoint pupils.

Other Hazard: Aspiration (liquid enters the lung) may cause lung damage or death due to chemical pneumonia.

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EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Call a physician or poison control center immediately. Do not induce vomiting as this may cause aspiration. Do not give anything by mouth to an unconscious person.

Skin: Immediately wash affected area with plenty of soap and water. Remove contaminated clothing and shoes. Launder clothing before reuse. Destroy and dispose of contaminated shoes or other leather articles.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth.

Eyes: Immediately flush eyes with water for 15 minutes. Consult a physician.

Notes to Physician: Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure. Atropine, only by injection, is the preferable antidote. 2-PAM/protopam may be therapeutic if used early; however, only use in conjunction with atropine. In case of severe acute poisoning, use antidote immediately upon establishing an airway. Exposure may increase "myocardial irritability." Do not administer sympathomimetic drugs unless absolutely necessary. Supportive care. Treatment based on the judgment of the physician in response to reactions of the patient.

VI. REACTIVITY

Stability: Stable

Conditions to Avoid: Avoid heating above 122 Deg. F. Violent decomposition may occur at temperatures above 266 Deg. F.

Polymerization: Will Not Occur

Conditions to Avoid: None known.

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Incompatibility material: None known.
Hazardous Combustion: Under fire conditions, hydrogen chloride, ethyl sulfide, diethyl sulfide and nitrogen oxides can be formed.

VII. SPILL OR LEAK PROCEDURES

Spill or Leak Proc: Absorb spills with inert absorbent, such as dry sand. Thoroughly wash body areas which come into contact with this product. Contain spill to prevent runoff to lakes, ponds or drains. Collect spilled material and place in chemical waste containers for proper disposal.
Waste Disposal Method: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

VIII. SPECIAL PROTECTION INFORMATION

Respiration: Use NIOSH-approved air-purifying respirator when TLV is exceeded.
Ventilation: General and/or local exhaust.
Gloves: Impervious
Eyes: Chemical goggles
Other: Full-body protective clothing, eyewash station and safety shower.

IX. SPECIAL PRECAUTIONS

Special precaution: Keep out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals. Highly toxic to birds, fish and aquatic organisms; do not contaminate lakes, streams, ponds or sewers. Avoid breathing vapors or spray mists. Wash hands after handling and before eating, drinking, using tobacco or using the toilet.
Other precaution: Store in original container in a dry storage area. Do not store above 100 Deg. F. for extended periods. Storage below 20 Deg. F. may result in the formation of crystals. If product crystallizes, store at 50-70 Deg. F. and agitate to re-dissolve crystals.

