



Safety Data Sheet

Report Date 29-Oct-15

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1. Identification

Product Name : WhirlWind
Synonyms : None
Product Use : Organophosphorus Insecticide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Danger
Skin Irritation : Not classified as hazardous for skin irritation
Eye Irritation : Not classified as hazardous for eye irritation
Acute Toxicity Oral : Estimated LD50 300 mg/kg (rat)
Acute Toxicity Dermal : Estimated LD50 >1,000 mg/kg (rabbit)

Hazard Categories : Oral/Dermal/Inhalation Toxicity-3/4/4; Flammable-3; STOT-Single-3; Aspiration-1

Hazard Statement : Toxic if swallowed
Harmful in contact with skin
Harmful if inhaled
May cause respiratory irritation
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Flammable liquid and vapour

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Balance (nonhazardous)	Nonhazardous	33.6
Chlorpyrifos	2921-88-2	44.90
Xylene	1330-20-7	0.4
1,2,4-Trimethylbenzene	95-63-6	14.4
1,3,5-Trimethylbenzene	108-67-8	3.8
Cumene	98-82-8	1.9
2-Ethylhexanol	104-76-7	1.0

4. First Aid Measures



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- Eye** : Immediately flush eyes with water for 15 minutes. Consult a physician.
- 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.
- Ingestion** : 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.
- Indication of Immediate Medical Attention and Special Treatment Needed** : Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine, only by injection, is the preferable antidote. Treatment of exposure should be directed at control of the symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

- Extinguishing Media** : Foam, carbon dioxide and dry chemical.
- Specific Hazards Arising from the Chemical** : 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.
- Special Fire Fight Proc** : Use positive-pressure self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : No smoking in spill area. Vapor explosion hazard. Keep out of sewers. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Keep personnel out of low areas. Ventilate area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use organic vapor cartridge with particulate pre-filter. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Prevent spills from entering into soil, ditches, sewers, waterways and/or groundwater. Contain spilled material if possible.
- Methods and Materials for Containment and Cleanup** : Absorb small spills with material such as clay, dirt, or sand. Sweep up. Collect in suitable and properly labeled containers. For large spills, pump with explosion-proof equipment. If available, use foam to smother or suppress.

7. Handling and Storage

- Precautions for Safe Handling** : Keep out of reach of children. Do not contaminate water, food, feed or other material by storage, handling or disposal. If container is damaged or spillage occurs, use product immediately or dispose of product and damaged container in accordance with applicable regulations.
- Conditions for Safe Storage** : Store in original container in secured, dry pesticide storage area. Prevent cross-contamination with other pesticides and fertilizers. Do not store above 100 Degrees F. for extended periods of time. Storage below 20 Degrees F. may result in formation of crystals. If product crystallizes, store at 50 Degrees F. to 70 Degrees F. and agitate to redissolve crystals.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Cumene: PEL=245 mg/m³; Xylene: PEL=435 mg/m³
- Appropriate Engineering Controls** : Local exhaust ventilation may be necessary for some operations.



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Personal Protective Equipment : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use organic vapor cartridge with particulate pre-filter. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Red liquid with aromatic odor.
Flash Point, °F : 41 Degrees C.
Boiling Point, °F : 143 Degrees C.
Melting Point(Freezing point), °C : No information found
Vapor Pressure, mm Hg @ 20 °C : No test data available
Vapor Density : No test data available
Solubility in Water : Emulsifiable
Molecular Formula : Not applicable, formulated mixture.
Density, g/mL @ 25 °C : 1.014-1.034
Evaporation Rate(Butyl Acetate = 1) : No test data available
Octanol/Water Partition Coefficient : No data available for this product.
pH : 4.3
Flammable Limits (approximate volume % in air) : 1% (LFL); 6% (UFL)
Auto-ignition Temperature : Not determined
Decomposition temperature : No test data available

10. Stability and Reactivity

Reactivity : Not reactive under conditions of normal use.
Chemical Stability : Stable
Hazardous Decomposition Products : Decomposition products can include, and are not limited to, hydrogen chloride, organic sulfides, sulfur dioxide. Toxic gases are released.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Unstable at elevated temperatures. Avoid temperatures above 70 Degrees C. Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.
Incompatible Materials : Avoid contact with oxidizing materials. Avoid contact with brass, strong acids.

11. Toxicological Information

Acute Toxicity (Oral LD50) : Estimated LD50 300 mg/kg (rat). Toxic if swallowed.
Acute Toxicity (Dermal LD50) : Estimated LD50 >1,000 mg/kg (rabbit). Harmful in contact with skin.
Acute Toxicity Inhalation LC50 : Estimated LC50 >2 mg/L, 4-hour aerosol. Harmful if inhaled. May cause drowsiness or dizziness.
Likely Routes of Exposure : Inhalation, ingestion, skin absorption
Skin Irritation : Not classified as hazardous for skin irritation.
Eye Irritation : Not classified as hazardous for eye irritation.
Skin Sensitization : Not a skin sensitizer (Guinea pig).
Carcinogenic : Cumene, a minor component, caused cancer in laboratory animals. Relevance to humans is unknown.
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 Hazards : Aspiration hazard. May be fatal if swallowed and enters airways. May cause respiratory irritation.



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12. Ecological Information

- Ecotoxicity** : Chlorpyrifos is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species). Highly toxic to birds on a dietary basis (LC50 between 50 and 500 ppm).
- Persistence and Degradability** : Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD < 2.5%).
- Bioaccumulative Potential** : Low to moderate, based on individual components.
- Mobility in Soil** : Mobility in soil is from immobile to medium, based on individual components.
- Other Adverse Effects** : No information available.

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : RQ, Organophosphorus Pesticide, Liquid, Toxic, Flammable, (Chlorpyrifos, Aromatic Naphtha)
- Transport Hazard Class** : Toxic (6.1), subsidiary Flammable (3)
- UN Identification Number** : UN3017
- Packaging Group** : PG III
- Environmental Hazards** : Marine Pollutant (>=110 gallons in single package)
- Transport in Bulk** : Marine Pollutant (>=110 gallons in single package)
- Special Precautions for Transportation** : ERG # 131; Reportable Quantity (chlorpyrifos) = 1 lb/4.03 gallons.
- Freight Classification** : See Shipping Name

15. Regulatory Information

- National Fire Protection Association Rating** :
- | | | | |
|--|---|---------|---------------|
| Health: | 2 | Fire: 2 | Reactivity: 1 |
| Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum) | | | |
- S.A.R.A Title III Hazard Classification (Yes/No)** :
- Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of Pressure: N
Fire: Y
Reactive: N
- FIFRA Information** : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling 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:
- EPA Registration Number** : 62719-220-5905
- FIFRA Signal Word** : Warning
- FIFRA Label Statement** : May be fatal if swallowed.
- FIFRA Label Statement** : Harmful if absorbed through skin.



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FIFRA Label Statement : Causes moderate eye irritation.
FIFRA Label Statement : Avoid contact with skin, eyes or clothing.
FIFRA Label Statement : No additional label statements.
FIFRA Label Statement : No additional label statements.
FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 29-October-2015