

Material Safety Data Sheet

Date last revised: 9 January 2009

I. General Information

Chemical Name and Synonyms Chlorpyrifos	Trade Name & Synonyms MOSQUITOMIST ONE ULV
Chemical Family Organophosphate	EPA Registration Number 8329-24
Proper DOT Shipping Name (RQ) Environmentally Hazardous Substances, Liquid, N.O.S. (Contains Chlorpyrifos), 9, UN 3082, PG III	DOT Hazard Classification 9, UN 3082, PG III
Manufacturer Clarke Mosquito Control Products, Inc.	Manufacturer's Phone Number (630) 894-2000
Manufacturer's Address 159 North Garden Avenue Roselle, Illinois 60172	INFOTRAC (Transportation/Spill Emergency) 1-800-553-5053 Poison Control Center (Medical Emergency) 1-800-214-7753

II. Ingredients

Principal Hazardous Components	CAS #	NIOSH PEL-TWA	Percent
Chlorpyrifos [0.0-diethyl 0-(3,5,6-trichloro-2-pyridyl) phosphorothioate]	002921-88-2	0.2 mg/m3	13.624%
Other ingredients (non-hazardous and/or trade secret)		5 mg/m3	86.376%

III. Physical Data

Boiling Point (°F): Not Available	Density: 0.905 g/ml (20 C)
Vapor Pressure (mm Hg.): Not Available	Vapor Density (Air = 1): Not Available
Solubility in Water: Not Available	Odor: Aromatic petroleum-like odor
Appearance: Straw colored liquid to colorless	

IV. Fire & Explosion Hazard Data

Flash Point (Test Method): 80 °C (176 °F) (PMA-4) ASTM D93 Test Method
Extinguishing Media: Foam, CO ₂ , Alcohol Foam, Dry Chemical
Special Fire Fighting Procedures: Foam system is preferred. Use positive pressure self-contained breathing apparatus.
Unusual Fire & Explosion Hazards: This material can burn but will not ignite. This material may release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point.

V. Health Hazard Data

Toxicity: Oral LD₅₀: 1,625 mg/kg:	Single dose oral toxicity is moderate. Amounts ingested incidental to industrial handling are not likely to cause injury.
Dermal LD₅₀: >5,000 mg/kg	Contains a petroleum distillate. Vomiting may cause aspiration pneumonia.
Eye: Mildly irritating to the eye.	
Skin Contact: Moderately irritating to the skin. Prolonged or repeated exposure may cause skin irritation. Repeated contact may cause drying or flaking of skin.	
Inhalation: Acute Inhalation LC ₅₀ > 2.03 mg/L	
Teratogenicity: Chlorpyrifos did not cause birth defects in laboratory animals	Carcinogenicity: Chlorpyrifos did not cause cancer in long-term animal studies
Systemic & Other Effects: Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. Repeated excessive exposures to high concentrations of solvent may cause liver and kidney injury and effects on blood cells.	

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VI. Reactivity Data

Stability	Stable
Incompatibility	Specific materials to avoid: None. Consult manufacturer for specific cases.
Hazardous Decomposition Products	On heating, will decompose to form volatile, flammable, odorous organic sulfides, and hydrogen chloride

VII. Environmental Protection Procedures

Spill Response: Contain spill by diking to keep out of sewers. Eliminate ignition sources. Absorb spills with dry material such as sand and sweep up for disposal. For large spills, barricade area and consult manufacturer.

Waste Disposal: Dispose in accord with local, state, and federal regulations.

VIII. Emergency First Aid

If Swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give a liquid to the person. Do not give anything by mouth to an unconscious person.

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 first 5 minutes, then continue rinsing the eye. Call a poison control center or a doctor for treatment advice.

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

Note to Physician: The decision to induce vomiting should be made by an attending 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. Chlorpyrifos is a cholinesterase inhibitor. Suggest serum and/or RBC cholinesterase determination. Treat symptomatically. Atropine by injection is antidotal, 2-PAM may be effective as an adjunct to atropine.

IX. Special Protection Information

Exposure Guidelines: ACGIH TLV is 0.2 MG/M3 for chlorpyrifos

Ventilation: Control airborne concentrations below the exposure guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Lethal concentrations may exist in areas with poor ventilation.

Respiratory Protection: Mixers, loaders and handlers must follow respiratory protection requirements on product label, including use of enclosed cab and/or use of NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C, or a NIOSH-approved respirator with any R, P, or HE filter.

Skin Protection: Mixers, loaders and handlers must follow PPE requirements on product label, including coveralls, chemical-resistant gloves and footwear. Applicators using an enclosed cab or cockpit may wear baseline protection (long-sleeve shirt, long pants, shoes and socks) instead of the PPE required for other handlers. Mixers and loaders involved in aerial application must use a closed system for mixing and/or loading product into application equipment.

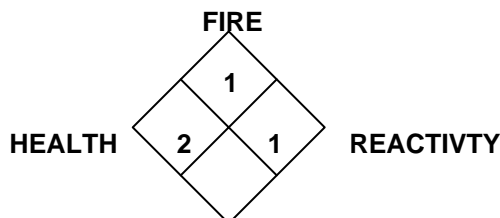
Eye Protection: Chemical goggles are recommended when handling or filling tanks.

Other Protection: See label. Keep out of reach of children. Avoid ingestion. Avoid skin and eye contact. Wash thoroughly with soap and water after handling.

X. Other Regulatory Information

CERCLA Reportable Quantity: 1 lb. RQ is obtained in a one-gallon spill. Spills exceeding RQ must be reported to the National Response Center.

NFPA Rating Information:



NFPA Code Key

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. **NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.**