



Safety Data Sheet

Report Date 19-Oct-15

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1. Identification

Product Name : SAURUS
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 : Warning
Skin Irritation : Not classified as hazardous by skin contact
Eye Irritation : Not classified as hazardous by eye contact
Acute Toxicity Oral : LD50 1,268 mg/kg (female rat), 2,250 mg/kg (male rat)
Acute Toxicity Dermal : LD50 >5,000 mg/kg (rabbit)

Hazard Categories : Oral Toxicity-4

Hazard Statement : Harmful if swallowed

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
gamma-Butyrolactone	96-48-0	2.5
Nonhazardous ingredients	Proprietary	82.5
Chlorpyrifos	2921-88-2	15.0

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Skin : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation : Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration. Call a poison control center or doctor for treatment advice.

Ingestion : 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. Never give anything by mouth if unconscious.

Indication of Immediate Medical Attention and Special Treatment Needed : Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration. Atropine, only by injection, is preferable antidote.

5. Fire Fighting Measures

Extinguishing Media : Use water, carbon dioxide or dry chemical extinguishing agents. Foam is preferred.



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- Specific Hazards Arising from the Chemical** : Hazardous combustion products may include sulfur oxides, phosphorous compounds, nitrogen oxides, hydrogen chloride, carbon monoxide and carbon dioxide.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Dike fire fighting water to prevent contamination of sewers or waterways.

6. Accidental Release Measures

- Personal Precautions** : Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard.
- Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, body-covering clothing. Respiratory protection should be used when there is a potential to exceed the exposure limit. Eyewash/emergency shower should be available in work area.
- Emergency Procedures** : Spills or discharge to natural waterways is likely to kill aquatic organisms.
- Methods and Materials for Containment and Cleanup** : Contain spilled material if possible. Sweep up small spills, then place in properly labeled containers. Contact professional cleanup contractor for large spills.

7. Handling and Storage

- Precautions for Safe Handling** : Keep away from heat, sparks and flame. Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing dust or mist. Wash thoroughly after handling. Use with adequate ventilation. No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product.
- Conditions for Safe Storage** : Store in a dry place. Store in original container. Do not store near food, foodstuffs, drugs or potable water supplies.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Chlorpyrifos: ACGIH TWA (inhalable fraction and vapor)=0.1 mg/m³; NIOSH REL (TWA)=0.2 mg/m³
- Appropriate Engineering Controls** : Use local exhaust ventilation.
- Personal Protective Equipment** : Splashproof goggles or face shield, chemical-resistant gloves, body-covering clothing. Respiratory protection should be used when there is a potential to exceed the exposure limit. Eyewash/emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Tan granule with mercaptan-like odor.
- Flash Point, °F** : Not applicable
- Boiling Point, °F** : Not applicable
- Melting Point(Freezing point), °C** : Not applicable
- Vapor Pressure, mm Hg @ 20 °C** : Not applicable
- Vapor Density** : Not applicable
- Solubility in Water** : Insoluble
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 0.721 g/cm³ (bulk density)
- Evaporation Rate(Butyl Acetate = 1)** : Not applicable
- Octanol/Water Partition Coefficient** : No data available



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pH : 5.0 to 6.0 (5%)
Flammable Limits (approximate volume % in air) : No data available
Auto-ignition Temperature : Not applicable
Decomposition temperature : No data available

10. Stability and Reactivity

Reactivity : No data available
Chemical Stability : Stable
Hazardous Decomposition Products : Decomposition products can include hydrogen cyanide, organic sulfides, sulfur dioxide.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Unstable at elevated temperatures. Avoid temperatures above 158 Degrees F. Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.
Incompatible Materials : Avoid contact with bases, oxidizers.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 1,268 mg/kg (female rat) and 2,250 mg/kg (male rat). Harmful if swallowed.
Acute Toxicity (Dermal LD50) : >5,000 mg/kg (rabbit). Not classified as hazardous by skin absorption.
Acute Toxicity Inhalation LC50 : >2.06 mg/L/4 hour (rat), exposure to aerosol. Not classified as hazardous by inhalation.
Likely Routes of Exposure : Ingestion
Skin Irritation : Brief contact is essentially nonirritating to skin. Not classified as hazardous by skin contact.
Eye Irritation : May cause moderate eye irritation. Corneal injury is not likely. Not classified as hazardous by eye contact.
Skin Sensitization : Did not cause allergic skin reactions when tested in guinea pigs.
Carcinogenic : Not listed by NTP, IARC or OSHA.
Chronic Effects : Excessive exposure may produce organophosphate-type cholinesterase inhibition. Signs and symptoms of overexposure include headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating and pinpoint pupils.
Other Hazards : None currently known.

12. Ecological Information

Ecotoxicity : Chlorpyrifos: Very highly toxic to aquatic organisms on an acute basis. Material is highly toxic to birds on a dietary basis.
Persistence and Degradability : Chlorpyrifos: Biodegradation under aerobic laboratory conditions is below detectable limits.
Bioaccumulative Potential : Chlorpyrifos: Bioconcentration potential is low.
Mobility in Soil : Chlorpyrifos: Expected to be relatively immobile in soil.
Other Adverse Effects : Marine Pollutant under USDOT, IATA and IMDG.

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.



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14. Transport Information

UN Proper Shipping Name : RQ, Environmentally Hazardous Substances, Solid, n.o.s. (Chlorpyrifos)
Transport Hazard Class : Class 9
UN Identification Number : UN3077
Packaging Group : PG III
Environmental Hazards : Marine Pollutant per 49 CFR 172.101, Appendix B; IATA and IMDG.
Transport in Bulk : RQ, UN3077, Environmentally Hazardous Substance, Solid, n.o.s., (Chlorpyrifos), 9, PG III, Marine Pollutant "ERG # 171"
Special Precautions for Transportation : Reportable Quantity (RQ)= 1 lb (>6.66 lbs finished product)
Freight Classification : Pesticides, NOI, Insecticides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 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: N
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 : 62719-34-5905
FIFRA Signal Word : Caution
FIFRA Label Statement : Keep out of reach of children.
FIFRA Label Statement : Harmful if swallowed.
FIFRA Label Statement : Causes moderate eye irritation.
FIFRA Label Statement : Avoid contact with eyes or clothing.
FIFRA Label Statement : Wash thoroughly with soap and water after handling.
FIFRA Label Statement : No additional label statements.
FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 19-October-2015