Material Safety Data Sheet

LINDANE

Catalog Number: 1367504 Package Size: 200 mg Revision Date: January 15, 2002

EMERGENCY OVERVIEW - Poison by ingestion, inhalation, and skin absorption. Irritant. WARNING: This material is a possible human carcinogen.

SECTION 1 - IDENTIFICATION

Common Name: Lindane  
Synonym: Gamma benzene hexachloride; Gamma hexachlorocyclohexane  
Chemical Name: Cyclohexane,1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha, 3beta, 4alpha, 5alpha, 6beta)-  
CAS Number: 58-89-9  
RTECS Number: GV4900000  
Chemical Family: Cylcohexane derivative  
Therapeutic Category: Pediculicide; scabicide

SECTION 2 - INGREDIENT INFORMATION

<table>
<thead>
<tr>
<th>Principle Components</th>
<th>Percent</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindane Pure Material</td>
<td>Pure Material</td>
<td>ACGIH: TWA 0.5 mg/m3 (skin); OSHA: TWA 0.5 mg/m3 (skin)</td>
</tr>
</tbody>
</table>

SECTION 3 - HEALTH HAZARD INFORMATION

Usual Adult Dose: Lindane is used as a 1% shampoo, cream, or lotion, applied to the skin.

Adverse Effects: Adverse effects from ingestion, inhalation, or skin absorption may include skin rash, severe headache, dizziness, clumsiness, rapid heartbeat, muscle cramps, nervousness, restlessness or irritability, nausea, vomiting, diarrhea, convulsions, cyanosis, and circulatory collapse. Possible allergic reaction to material if inhaled, ingested or in contact with skin.
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Overdose Effects: Symptoms of overdose include the central nervous system toxicities listed under Adverse Effects.
  Acute: Eye, skin, or respiratory tract irritation and possible central nervous system excitation.
  Chronic: Possible hypersensitization, aplastic anemia or other blood disorders, and liver damage.
Inhalation: Causes irritation and toxicity. Avoid inhalation! Remove to fresh air and seek medical care.
  Eye: Causes irritation. Avoid exposure! Flush with copious quantities of tepid water for at least 15 minutes.
  NOTE: Contact lenses should not be worn when working with lindane.
  Skin: Causes irritation and toxicity. This material is absorbed through the skin. Avoid contact! Flush with copious quantities of soap and water.
  Ingestion: Causes irritation and potentially life-threatening toxicity. Symptoms of toxicity may develop rapidly. Avoid ingestion! Flush out mouth with water.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material, liver or kidney disease, convulsive disorders, and skin rash or broken skin.

Overdose Treatment: Overdose treatment may include the following:
1. For ingestion, perform prompt gastric lavage. Use saline cathartics for intestinal evacuation; avoid oily cathartics. CAUTION: Seizures can occur suddenly and without warning.
2. For convulsions, administer sedatives and anticonvulsants such as diazepam, pentobarbital or phenobarbital. [PDR 55th 2001]

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SECTION 4 - FIRST AID MEASURES

General: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

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SECTION 5 - TOXICOLOGICAL INFORMATION

Oral Rat: LD50: 76 mg/kg
Oral Mouse: LD50: 44 mg/kg
Irritancy Data: n/f
Target Organ(s): Eyes, Central nervous system, Kidneys, Skin, Liver, and Blood.
Listed as a Carcinogen? NTP: Yes  IARC: Yes  OSHA: No

SECTION 6 - FIREFIGHTING MEASURES

Flash Point: Approximately 150° F (CC)
Auto-Ignition Temperature: n/f
Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.
Fire and Explosion Hazards: This material is not combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.
Firefighting Procedures: As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

SECTION 7 - PHYSICAL HAZARDS

Conditions to Avoid: Avoid exposure to extreme heat.

Incompatibilities: Strong alkalies, strong bases, oxidizing agents, and powdered metals.

Decomposition Products: When heated to decomposition material emits toxic fumes of Cl-, phosgene and HCl. Emits toxic fumes under fire conditions.

Stable? Yes Hazardous Polymerization? No

SECTION 8 - HANDLING / SPILL / DISPOSAL MEASURES

Handling: As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

Storage: Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

Spill Response: Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Wash spill site. Place spillage and all contaminated cleanup materials in a thick plastic hazardous waste disposal bag or leakproof container and label it CAUTION: HAZARDOUS CHEMICAL WASTE.

Disposal: Place material in a thick plastic hazardous waste disposal bag or leakproof container and label it CAUTION: HAZARDOUS CHEMICAL WASTE. Dispose of waste in accordance with all applicable Federal, State and local laws.

SECTION 9 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Use a NIOSH approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

Ventilation: Recommended.

Gloves: Rubber

Eye Protection: Splash proof or dust resistant safety goggles and a face shield to prevent contact with material.

Protective Clothing: Protect exposed skin.

SECTION 10 - PHYSICAL AND CHEMICAL PROPERTIES

NOTE: The data reported below is general information, and is not specific to the USP Reference Standard Lot provided!

Appearance and Odor: White crystalline powder; odorless or slight musty odor.

Melting Point: 112 - 113° C

Solubility in Water: Practically insoluble

Boiling Point: 323.4° C

Specific Gravity: 1.9

Vapor Pressure: 0.03 mm Hg @ 20° C

Vapor Density: n/f

Evaporation Rate: n/f

Reactivity in Water: n/f

% Volatile by Volume: n/f