



# UNISOURCE CHEMICALS PRIVATE LIMITED

Factory : L-15 MIDC TARAPUR, BOISAR - 401506 DIST. THANE

Tel.: 2205 2250; 2205 0713; Fax: ++91-22-22019990 ;

E-mail: unisourceindia@gmail.com; Web: www.ucplchem.com

## THIONIN

### Material Safety Data Sheet

#### **1. PRODUCT IDENTIFICATION:**

**Synonyms:** 3,7-Diaminophenothiazin-5-ium Chloride, Katalysin; Thionine.

**CAS No.:** 78338-22-4

**Molecular Weight:** 263.6031

**Formula:** C<sub>12</sub>H<sub>10</sub>N<sub>3</sub>SCl

#### **2. COMPOSITION / INFORMATION ON INGREDIENTS:**

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Percent</u>	<u>Hazardous</u>
Thionin	78338-22-4	~99%	No

#### **3. HAZARDS IDENTIFICATION:**

##### **Emergency Overview**

**Appearance:** Black green. **Caution!** The toxicological properties of this substance have not been fully investigated. Eye contact may result in permanent eye damage. May cause skin and eye irritation. May cause respiratory and digestive tract irritation.

**Target Organs:** None known.

##### **Potential Health Effects**

**Eyes:** This product contains a cationic dye. Similar dyes have caused permanent injury to the cornea and conjunctiva in documented exposure cases with human or rabbit eyes.

**Skin:** May cause skin irritation.

**Ingestion:** May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Chronic:** No information found.

#### **4. FIRST AID MEASURES:**

**Eyes:** Get medical aid. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth with water and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically.

## **5. FIRE FIGHTING MEASURES:**

**General information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dust at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Auto-ignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not applicable.

**Upper:** Not applicable.

**NFPA Rating:** Health: 1; Flammability: 0; Reactivity: 0

## **6. ACCIDENTAL RELEASE MEASURES:**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

## **7. HANDLING AND STORAGE:**

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION:**

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Use adequate ventilation to keep airborne concentrations low.

### **Exposure Limits**

<b><u>Chemical Name</u></b>	<b><u>ACGIH</u></b>	<b><u>NIOSH</u></b>	<b><u>OSHA Final PELs</u></b>
Thionin	None listed	None listed	None listed

**OSHA Vacated PELs:** Thionine: No OSHA Vacated PELs are listed for this chemical.

### **Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard approved respirator when necessary.

## **9. PHYSICAL AND CHEMICAL PROPERTIES:**

**Physical State:** Solid

**Appearance:** Black-green

**pH:** Not available.

**Odor:** None reported.

**Vapor Pressure:** Negligible.

**Vapor Density:** Not available.

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** Not available.  
**Decomposition Temperature:** Not available.  
**Solubility:** Soluble in water.

#### **10. STABILITY AND REACTIVITY:**

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** High temperatures, incompatible materials, dust generation.  
**Incompatibilities with Other Materials:** Oxidizing agents.  
**Hazardous Decomposition Products:** Hydrogen chloride, carbon monoxide, oxides of nitrogen, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.  
**Hazardous Polymerization:** Has not been reported.

#### **11. TOXICOLOGICAL INFORMATION:**

**RTECS#:** CAS# 78338-22-4: SN5425000  
**LD50/LC50:** Not available.  
**Carcinogenicity:** CAS# 78338-22-4: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.  
**Epidemiology:** No information available.  
**Teratogenicity:** No information available.  
**Reproductive Effects:** No information available.  
**Neurotoxicity:** No information available.  
**Mutagenicity:** No information available.  
**Other Studies:** No data available.

#### **12. ECOLOGICAL INFORMATION:**

**Environmental Fate:** No information available.

#### **13. DISPOSAL CONSIDERATIONS:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
**RCRA P-Series:** None listed.  
**RCRA U-Series:** None listed.

#### **14. TRANSPORT REGULATIONS:**

No information available.

#### **15. REGULATORY INFORMATION:**

##### **US FEDERAL**

**TSCA:** CAS# 78338-22-4 is listed on the TSCA inventory.  
**Health and Safety Reporting List:** None of the chemicals are on the Health and Safety Reporting List.  
**Chemical Test Rule:** None of the chemicals in this product are under a Chemical Test Rule.  
**Section 12b:** None of the chemicals are listed under TSCA Section 12b.  
**TSCA Significant New Use Rule:** None of the chemicals in this product have a SNUR under TSCA.  
**SARA**  
**Section 302 (RQ) and (TPQ):** None of the chemicals in this product have an RQ or a TPQ.  
**Section 313:** No chemicals are reportable under Section 313.

**Clean Air Act:** This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.  
**Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are considered Priority Pollutants under the CWA. None of the chemicals in this product are considered Toxic Pollutants under the CWA.  
**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.  
**State:** CAS# 78338-22-4 is not present on state lists from CA, PA, MN, MA, FL, or NJ.  
California No Significant Risk Level: No chemicals are listed.

## **EUROPEAN / INTERNATIONAL REGULATIONS**

### **European Labeling in Accordance with EC Directives**

**Hazard Symbols:** Not available.

**Risk Phrases:** Not available.

**Safety Phrases:** S 24/25 Avoid contact with skin and eyes.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S 28A After contact with skin, wash immediately with plenty of water.

**WGK (Water Danger/Protection):** CAS# 78338-22-4: No information available.

**Canada DSL/NDSL List:** CAS# 78338-22-4 is listed on Canada's DSL List.

**Canada WHMIS:** This product has a WHMIS classification of D2B.

### **Canadian Ingredient Disclosure List**

### **Exposure Limits**

## **16. DISCLAIMER INFORMATION:**

### **DISCLAIMER:**

\*\*\*\*\*

**UNISOURCE CHEMICALS PVT.LTD.** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. **UNISOURCE CHEMICALS PVT.LTD.** makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, **UNISOURCE CHEMICALS PVT.LTD.** will not be responsible for damages resulting from the use of or reliance upon this information.

\*\*\*\*\*