

MATERIAL SAFETY DATA SHEET

PRODUCTS: Thiofluor™

Cat. No. 3700-2000

Section I – General

Manufacturer: Pickering Laboratories, Inc.

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Address: 1280 Space Park Way, Mountain View, CA 94043, USA

CAS #: [13242-44-9]

FORMULA: C₄H₁₂CINS

CHEMICAL NAME: 2-Dimethylamino ethanethiol hydrochloride

SYNONYMS: Captamine hydrochloride • N-Dimethylcysteamine hydrochloride •
N-(2-Mercaptoethyl)dimethylamine hydrochloride

CHEMICAL FAMILY: Amine, thiol

Section II – Hazardous Ingredients

1: >99% 2-Dimethylamino ethanethiol hydrochloride

Section III – Physical Data

MELTING POINT: 158–160°C

APPEARANCE: White powder

ODOR: Slight, unpleasant, characteristic of thiols

SOLUBILITY: Very soluble in water, moderately soluble in alcohol

Section IV – Toxicity Data

RTECS #: KJ1051000

RTECS NAME: Ethanethiol, 2-(dimethylamino), -hydrochloride

TOXICITY: IPR-mus LD50: 280 mg/kg

REVIEWS: Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data are presented here. Refer to actual entry in RTECS for complete information.

Section V – Health Hazards and First Aid

ACUTE EFFECTS: May be harmful by inhalation, ingestion, or skin absorption. Irritates mucous membranes and upper respiratory tract.

CHRONIC EFFECTS: The chemical, physical, and toxicological properties have not been thoroughly investigated.

EYE CONTACT: Immediately flush with plenty of water for at least 15 minutes; assure adequate flushing by separating eyelids with fingers.

- SKIN CONTACT:** Immediately wash with copious amounts of water and soap.
- INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
- INGESTION:** Wash out mouth with water provided victim is conscious. Call a physician immediately.

Section VI – Fire and Explosion Hazards

- FLASHPOINT:** Not applicable
- EXTINGUISHING MEDIA:** Water spray; dry chemical; carbon dioxide; alcohol or polymer foam.
- FIREFIGHTING PROCEDURE:** Wear self-contained breathing apparatus and protective clothing to protect contact with skin and eyes.
- UNUSUAL HAZARDS:** Emits toxic fumes (see below) under fire conditions.
- EXPLOSIVE PROPERTIES:** Non-explosive

Section VII – Reactivity

- GENERAL:** Stable
- INCOMPATIBILITIES:** Keep from contact with oxidizing agents.
- HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:** Emits toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas, and sulfur oxides.

Section VIII – Spill or Leak Procedures

- SPILL PROCEDURE:** Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Sweep up, place in a plastic bag, and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill-site with soap and water.
- WASTE DISPOSAL:** This product may be mixed or dissolved in a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local regulations.

Section IX – Precautions for Handling and Storage

- SAFETY EQUIPMENT:** Chemical safety goggles, laboratory coat, rubber gloves, safety-shower with eye-wash, NIOSH / MSHA approved respirator.
- HANDLING PROCEDURES:** Avoid eye and skin contact and inhalation. Do not ingest. Wear safety glasses and gloves. Wash thoroughly after handling.
- STORAGE PROCEDURES:** Keep tightly closed. Hygroscopic. Store in cool, dry place

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