

Conforms to 93/112/EC and ISO 11014-1

Responsible Name Pierce Administration

? **Section 1. Chemical Product and Company Identification**

Product name **2-Mercaptoethylamine Hydrochloride**

Product No. 1854450

Supplier	<i>In USA:</i> Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723	<i>In Europe:</i> Perbio Science Industriezone III Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38	Manufacturer	Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723
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In Case of Emergency CALL CHEMTREC:
800.424.9300
OUTSIDE US:
202.483.7616

Print Date 11/4/2002
Validation Date **11/4/2002**
MSDS# 3756

Synonyms ETHANETHIOL, 2-AMINO-, HYDROCHLORIDE

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

 **Section 2. Composition, Information on Ingredients**

Substance/Preparation : Substance

<u>Ingredient Name</u>	<u>CAS No.</u>	<u>%</u>	<u>EC Number</u>	<u>Symbol</u>	<u>R-Phrases</u>
1) 2-Mercaptoethylamine Hydrochloride	156-57-0	98-100	205-858-1	Xn	R20/21/22

 **Section 3. Hazards Identification**

United States Review the most current and approved institutional guideline, protocol, standard operating procedure(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this product.

Emergency Overview WARNING!
CAUSES SEVERE SKIN IRRITATION.
MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
MAY CAUSE RESPIRATORY TRACT AND EYE IRRITATION.
Avoid contact with eyes, skin and clothing. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of Entry Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects Very hazardous in case of skin contact (irritant). Hazardous in case of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Carcinogenic Effects Data **CARCINOGENIC EFFECTS:** Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

Medical Conditions Aggravated by Overexposure: Repeated or prolonged exposure is not known to aggravate medical condition.

Overexposure /Signs/Symptoms Not available.

Europe

Classification R20/21/22
Physical/chemical hazards Not applicable.
Human health hazards Harmful by inhalation, in contact with skin and if swallowed.
Environmental hazards Not applicable.

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See Toxicological Information (section 11)

+ Section 4. First Aid Measures

Notice to Reader Get immediate medical attention.

Effects and symptoms

Inhalation Hazardous in case of inhalation (lung irritant).

Ingestion Hazardous in case of ingestion.

Skin Contact Very hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eye Contact Hazardous in case of eye contact (irritant).

Aggravating conditions Repeated or prolonged exposure is not known to aggravate medical condition.

First-Aid Measures

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Notes to Physician Not available.

Protection of first-aiders Not available.

🔥 Section 5. Fire Fighting Measures

Flammability of the Product May be combustible at high temperature.

Flash Points Not available.

Fire Hazards in Presence of Various Substances Not available.

Fire Fighting Media and Instructions SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Protective Clothing (Fire) Be sure to use an approved/certified respirator or equivalent.

Hazardous thermal (de)composition products These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...), sulfur oxides (SO₂, SO₃...).

Section 6. Accidental Release Measures

Personal precautions Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Environmental Precautions and Clean-up Methods Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Small Spill and Leak Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

◇ Section 7. Handling and Storage

Handling Avoid contact with eyes, skin, and clothing. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

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*Packaging materials**Suitable / Not suitable* Use original container.**Section 8. Exposure Controls/Personal Protection**

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Exposure Limit Values

Ingredient Name	Occupational Exposure Limits
United States	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
Sweden	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
Denmark	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
Norway	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
France	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
Netherlands	
1) 2-Mercaptoethylamine Hydrochloride	Not available.
Germany	
1) 2-Mercaptoethylamine Hydrochloride	Not available.

Personal Protection**Eyes** Splash goggles.**Body** Lab coat.**Hands** Gloves.**Respiratory** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.Protective Clothing
(Pictograms)**Section 9. Physical and Chemical Properties****Physical State and Appearance** Solid. (Crystalline solid)**Odor** Not available.**Molecular Weight** 113.62 g/mole**Taste** Not available.**Molecular Formula** C₂H₇NS**Color** White.**Melting/Freezing Point** 66 to 68°C (150.8 to 154.4°F)**Dispersion Properties** Not available.**Solubility** Not available.**Continued on Next Page**



Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Not available.

Materials to avoid Not available.

Hazardous Decomposition Products These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...), sulfur oxides (SO₂, SO₃...).



Section 11. Toxicological Information

Toxicity to Animals Acute oral toxicity (LD₅₀): 1352 mg/kg [Mouse].

Chronic Effects on Humans Not available.

Other Toxic Effects on Humans Hazardous in case of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Not available.

Special Remarks on Other Toxic Effects on Humans Not available.



Section 12. Ecological Information

Mobility Not available.

Persistence/degradability Not available.

Bioaccumulative potential Not available.

Ecotoxicity Not available.

Germany water class VCI WGK: No products were found.



Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Stream Not available.

Consult your local or regional authorities.



Section 14. Transport Information

Contact the supplier for all information regarding the proper transportation method for this material.



Section 15. Regulatory Information

Label Requirements (Europe)

R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

S7/8- Keep container tightly closed and dry.

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Harmful

HCS Classification Irritating substance.

U.S. Federal Regulations TSCA 8(b) inventory: 2-Mercaptoethylamine Hydrochloride
 SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: No products were found.
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
 SARA 313 toxic chemical notification and release reporting: No products were found.
 Clean Water Act (CWA) 307: No products were found.
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada) CLASS D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: 2-Mercaptoethylamine Hydrochloride

International Regulations

EINECS Not available.

DSCL (EEC) R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

International Lists Australia (NICNAS): 2-Mercaptoethylamine Hydrochloride

Korea (TCCL): 2-Mercaptoethylamine Hydrochloride

Philippines (RA6969): 2-Mercaptoethylamine Hydrochloride

State Regulations No products were found.

California prop. 65: No products were found.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)



References Not available.

History of Document Changes Any information changes since last document version are marked with a triangle symbol.

Full text of R-Phrases Harmful by inhalation, in contact with skin and if swallowed.
 referenced under headings 2 and 3:

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Validated by Pierce Administration on 11/4/2002.

Verified by Pierce Administration.

Date of Previous Issue No Previous Validation

Printed 11/4/2002.

Version 0.01

Notice to Reader

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To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.