



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Ethylamine**

Chemical formula : C₂H₇N

Synonyms : Ethanamine; Aminoethane; 1-Aminoethane; Monoethylamine; Monoethylamine, Anhydrous; UN 1036

Company : Med Tech Gases, Inc.
20 Hall Street
Medford, MA 02155

Telephone : 800-FINE-GAS

Emergency : 800-424-9300

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Ethylamine	75-04-7	100%

3. Hazards Identification

Emergency Overview

Harmful (if inhaled, on contact with the skin, or swallowed), respiratory tract burns, skin burns, eye burns, mucous membrane burns.

Flammable gas. May cause flash fire. Flammable liquid and vapor. Vapor may cause flash fire.

Potential Health Effects

Inhalation : Irritation (possibly severe), difficulty breathing, lung congestion.

Eye contact : Irritation (possibly severe), frostbite.

Skin contact : Irritation (possibly severe), blurred vision.

Ingestion : Burns.

Chronic Health Hazard : None.

4. First Aid Measures

General advice : None.

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Skin contact : Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Destroy contaminated shoes.

Ingestion : Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

- Inhalation : If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If not breathing, oxygen should be administered by qualified personnel. Get immediate medical attention.
- Note to physicians : For inhalation, consider oxygen.

5. Fire-Fighting Measures

- Suitable extinguishing media : Carbon dioxide, regular dry chemical, water, regular foam, alcohol-resistant foam.
Large fires: Use regular foam or flood with fine water spray.
- Specific hazards : Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.
- Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Water may be ineffective.

6. Accidental Release Measures

- Occupational spill/release : Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).
- Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

Storage

Store in accordance with all current regulations and standards. Protect from physical damage. Store outside or in a detached building. Keep separated from incompatible substances. Avoid heat, flames, sparks and other sources of ignition. Store with flammable liquids.

8. Exposure Controls / Personal Protection

Exposure limits

- ACGIH : 5 ppm TWA
15 ppm STEL
Skin – potential significant contribution to overall exposure by the cutaneous rate
- OSHA (final) : 10 ppm TWA; 18 mg/m³ TWA
- OSHA (vacated) : 10 ppm TWA; 18 mg/m³ TWA
- NIOSH : 10 ppm TWA; 18 mg/m³ TWA

Engineering measures/Ventilation

Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Personal protective equipment

- Respiratory protection : The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
250 ppm – Any supplied-air respirator operated in a continuous-flow mode.
Any powered, air-purifying respirator with cartridge(s) providing protection against this substance.
500 ppm – Any air-purifying respirator with a full facepiece and a canister providing protection against this substance.
Any air-purifying respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against this substance.
Any self-contained breathing apparatus with a full facepiece.
Any supplied-air respirator with a full facepiece.
600 ppm – Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.
Emergency or planned entry into unknown concentrations or IDLH conditions –
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Escape – Any air-purifying respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against this substance.
Any appropriate escape-type, self-contained breathing apparatus.
- Hand protection : Wear appropriate chemical resistant gloves.
- Eye protection : Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- Skin and body protection : Wear appropriate chemical resistant clothing.

9. Physical and Chemical Properties

- Form : Liquid.
Color : Colorless.
Odor : Ammonia odor.
Molecular weight : 45.10
Vapor pressure : 903 mmHg @ 20°C
Vapor density : 1.6 (air = 1)
Specific gravity : 0.7 (water = 1)
Boiling point : 63°F (17°C)
Melting point : -114°F (-81°C)
Water solubility : Soluble.
Evaporation rate : Not available.
Solvent solubility : Soluble: alcohol, ether.

10. Stability and Reactivity

- Stability : Stable at normal temperatures and pressure.
- Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Dangerous gases may accumulate in confined spaces. Keep out of water supplies and sewers.
- Materials to avoid : Acids, metals, combustible materials, oxidizing materials.
- Hazardous : Thermal decomposition products: Oxides of carbon, nitrogen.

decomposition
products

11. Toxicological Information

The components of this material have been reviewed in various sources and the following selected endpoints are published:

ETHYLAMINE (75-04-7) : Inhalation LC50 Rat: 12.6 mg/L/4H; Oral LD50 Rate: 530 mg/kg

Acute Toxicity Level

ETHYLAMINE (75-04-7) : Toxic: dermal absorption, ingestion
Moderately toxic: inhalation

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

Local Effects

ETHYLAMINE (75-04-7) : Corrosive: inhalation, skin, eye, ingestion

12. Ecological Information

Aquatic Toxicity

ETHYLAMINE (75-04-7) : Fish: 96 Hr LC50 *Leuciscus idus*: 240 mg/L
Invertebrate: 24 Hr EC50 *Daphnia magna*: 94 mg/L

13. Disposal Considerations

Waste from residues / unused products : Dispose in accordance with all applicable regulations.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Ethylamine
Class : 2.1
UN/ID No. : UN1036
Labeling : Flammable Gas

15. Regulatory Information

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

ETHYLAMINE (75-04-7) : 100 lb final RQ; 45.4 kg final RQ
CERCLA: 100 lb final RQ; 45.4 kg final RQ
OSHA (safety): 7500 lb TQ

SARA 311/312

Acute: Yes
Chronic: No
Fire: Yes
Reactive: No
Pressure: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
ETHYLAMINE	75-04-7	Yes	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65.