

### PRODUCT IDENTIFICATION



**Product Name:** Monoethanolamine (MEA) ACS Grade

**CAS Number:** 141-43-5

**Molecular Formula:** C<sub>2</sub>H<sub>7</sub>NO

**Molecular Weight:** 61.08 g/mol

**Grade:** ACS Grade

**Purity / Concentration:** Not Available

**Synonyms:** Ethanolamine, 2-Aminoethanol

### PRODUCT OVERVIEW

Monoethanolamine (MEA) is a colorless, viscous liquid with a strong ammonia-like odor. It is a primary amine and an alcohol, commonly used in various industrial applications due to its ability to act as a base and a surfactant.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

| PARAMETER              | UNIT | TYPICAL | MIN | MAX | TEST METHOD  |
|------------------------|------|---------|-----|-----|--------------|
| Assay Gc               | %    | 99      | 99  | —   | GC           |
| Color (APHA)           | APHA | 2       | —   | 10  | APHA         |
| Residue On Evaporation | ppm  | 15      | —   | 50  | Evaporation  |
| Water Karl Fischer     | %    | 0.06    | —   | 0.2 | Karl Fischer |
| Iron (Fe)              | ppm  | 0.03    | —   | 0.1 | ICP-MS       |
| Chlorides As Cl        | ppm  | 0.3     | —   | 1   | ICP          |
| Acidity As Acetic      | ppm  | 15      | —   | 50  | Titration    |

ND = Not Detected. Values are typical and may vary by lot.

### PHYSICAL & CHEMICAL PROPERTIES

|                                 |                                  |                         |                                               |
|---------------------------------|----------------------------------|-------------------------|-----------------------------------------------|
| <b>Appearance</b>               | Clear, colorless liquid          | <b>Odor</b>             | Ammonia-like odor                             |
| <b>Form</b>                     | Liquid                           | <b>Boiling Point</b>    | 338 °F at 760 mmHg (NTP, 1992)                |
| <b>Melting / Freezing Point</b> | 50.5 °F (NTP, 1992)              | <b>Flash Point</b>      | 200 °F (NTP, 1992)                            |
| <b>Specific Gravity</b>         | 1.018                            | <b>Solubility</b>       | Miscible with water and many organic solvents |
| <b>Molecular Formula</b>        | C <sub>2</sub> H <sub>7</sub> NO | <b>Molecular Weight</b> | 61.08 g/mol                                   |
| <b>Vapor Pressure (20°C)</b>    | 0.5 mmHg                         | <b>Viscosity (25°C)</b> | 1.0 cP                                        |
| <b>Refractive Index (20°C)</b>  | 1.446                            | <b>Density (25°C)</b>   | 1.01 g/mL                                     |

## APPLICATIONS

1. **Analytical Chemistry** — Commonly used as a mobile phase component in reversed-phase high-performance liquid chromatography for separating organic compounds.
2. **Water Treatment** — Utilized for adjusting pH levels in various industrial water treatment processes.
3. **Personal Care** — Acts as a surfactant in formulations for shampoos and skin care products.
4. **Industrial** — Serves as a corrosion inhibitor in metalworking fluids and other industrial applications.
5. **Pharmaceutical** — Used as a building block in the synthesis of various pharmaceutical compounds.

## STORAGE & HANDLING

- Store in a cool, dry place away from incompatible materials.
- Use HDPE or glass containers for storage to prevent reactions.
- Avoid exposure to moisture and heat to maintain product stability.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles when handling.
- Ensure adequate ventilation in the storage area to minimize inhalation risks.

## AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

## SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



### Hazard Statements:

- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H312: Harmful in contact with skin [Warning Acute toxicity, dermal]
- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]
- H332: Harmful if inhaled [Warning Acute toxicity, inhalation]

**Emergency Contact:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

*For complete safety information, refer to the Safety Data Sheet (SDS) for this product.*

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