MONOETHANOLAMINE

STRUCTURE  \( \text{H}_2\text{N-CH}_2\text{CH}_2\text{OH} \)

DESCRIPTION A clear, water-white, hygroscopic liquid with a mild ammoniacal odor.

APPLICATIONS A chemical intermediate in the manufacture of cosmetics, surface-active agents, emulsifiers, pharmaceuticals, and plasticizing agents; a gas-scrubbing agent for the absorption and removal of \( \text{H}_2\text{S} \) and \( \text{CO}_2 \) from refinery and natural gas streams; carbon dioxide and ammonia manufacturing.

SALES SPECIFICATIONS

<table>
<thead>
<tr>
<th>Property</th>
<th>Specifications</th>
<th>Test Method*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear and substantially free of suspended matter</td>
<td>ST-30.1</td>
</tr>
<tr>
<td>Color, Pt-Co</td>
<td>15 max.</td>
<td>ST-30.12</td>
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<tr>
<td>Diethanolamine, wt%</td>
<td>0.1 max.</td>
<td>ST-35.183</td>
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<tr>
<td>Monoethanolamine, wt%</td>
<td>99.5 min.</td>
<td>ST-35.183</td>
</tr>
<tr>
<td>Water, wt%</td>
<td>0.3 max.</td>
<td>ST-31.53, 6</td>
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</tbody>
</table>

Methods of Test are available from Huntsman Corporation upon request.

ADDITIONAL INFORMATION

Chemical Properties
- Molecular Weight: 61.08
- pH: 11.8

Regulatory Information
- DOT/TDG Classification: Ethanolamine
- Hazard Class 8, UN 2491
- Packing Group III
- Corrosive
- HMIS Code: 3-1-0
- CAS Number: 141-43-5
- TSCA Inventory: Yes
- WHMIS Classification: E, D2B
- Canadian DSL: Yes

Typical Values
- Boiling Point, 760 mm Hg, °F/°C: 339/171
- Flash Point, PMCC, °F/°C: 204/96
- Melting Point, °F/°C: 51/11
- Specific Gravity, 20/20°C: 1.0179
- Vapor Pressure, mm Hg, 20°C (68°F): <1
- Weight, lb/gal, 20°C (68°F): 8.47
TOXICITY AND SAFETY

For information on the toxicity and safe handling of this product, please read the Material Safety Data Sheet prior to use of the product.

HANDLING AND STORAGE

Monoethanolamine may be satisfactorily stored in carbon steel, stainless steel, or aluminum tanks using steel pipes and pumps. Caution must be exercised, however, to keep the material in the anhydrous state to prevent severe corrosion to the carbon steel or aluminum tank and related equipment. A drier on the breathing nozzle is recommended to help maintain anhydrous conditions in the storage tank.

For longer term color stability, it is recommended that the product be stored under an inert atmosphere. Solid sediment may form upon standing. There should be circulation in the storage vessel to keep solids suspended.

Low pressure steam coils in storage tanks and heat tracing of transfer lines should be provided in cases where low environmental temperatures may make pumping of the product difficult.

SHIPPING DATA

Product is available in tank cars, tank wagons and drums. Small samples are available by contacting our sample department at 1-800-662-0924.

BIODEGRADABILITY AND ENVIRONMENTAL SAFETY

Monoethanolamine undergoes moderate biodegradation and is not expected to be persistent in the environment.