



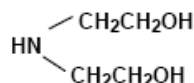
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HOBBS 505-492-0058  
BRIDGEPORT 940-683-5121  
LAFAYETTE 337-365-3364  
ARKANSAS 800-460-6851

## DIETHANOLAMINE

[CAS 111-42-2]

### STRUCTURE



Mol. wt. 105.14

### DESCRIPTION

A clear, colorless, hygroscopic liquid with a mild ammoniacal odor at temperatures higher than room temperature. At room temperature, the product is a white, crystalline solid.

### APPLICATIONS

An intermediate in the manufacture of cosmetics, surface-active agents used in textile specialties, herbicides, and petroleum demulsifiers; as a gas scrubber in refinery and natural gas operations; waxes, polishes, and coatings emulsifiers; soluble oils; and corrosion inhibitors.

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### SALES SPECIFICATIONS

| <u>Property</u>   | <u>Specifications</u>                            | <u>Test Method*</u> |
|-------------------|--|---------------------|
| Appearance, 30°C  | Clear and substantially free of suspended matter | ST-30.1             |
| Color, Pt-Co      | 15 max.  | ST-30.12            |
| Composition, wt%  |  | ST-35.99            |
| Diethanolamine    | 99.0 min.  |                     |
| Monoethanolamine  | 0.5 max.   |                     |
| Triethanolamine   | 0.5 max.   |                     |
| Equivalent weight | 104 - 106  | ST-5.5              |
| Water, wt%        | 0.15 max.  | ST-31.53, 6         |

\*Methods of Test are available from Huntsman Corporation upon request.

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### Regulatory Information

|                      |   |
|----------------------|---|
| DOT Classification   | Environmentally hazardous substances, liquid, n.o.s. (Diethanolamine) |
|                      | Hazard Class 9, UN 3082   |
|                      | Packing Group III   |
| TDG Classification   | Not Regulated   |
| HMIS Code            | 3-1-0   |
| TSCA Inventory       | Yes   |
| WHMIS Classification | D2B   |
| Canadian DSL         | Yes   |

### Typical Values

|                              |                  |
|------------------------------|------------------|
| Boiling point, 760 mm Hg, °C | 269 (decomposes) |
| Flash point, PMCC, °F        | 310              |
| Melting point, °C            | 28               |
| pH                           | 11.5             |
| Specific gravity, 30/20°C    | 1.0919           |
| Vapor pressure, 20°C, mm Hg  | <0.01            |
| Viscosity, cSt, 30°C         | 321              |
| Weight, 30°C, lb/gal         | 9.1              |

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Thomas Petroleum warrants only that its products meet the specifications stated herein. Typical properties where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products. NO GUARANTEE, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE SUITABILITY OF ANY CHEMICAL COMPOUNDS FOR ANY PARTICULAR USE, OR THAT ANY CHEMICAL COMPOUNDS OR USE THEREOF ARE NOT SUBJECT TO ANY CLAIM BY THIRD PARTY OR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. EACH USER SHOULD CONDUCT A SUFFICIENT INVESTIGATION TO ESTABLISH THE SUITABILITY OF ANY PRODUCT FOR ITS INTENDED USE. Products may be toxic and require special precautions in handling. For all products listed, user should obtain detailed information on toxicity, together with property shipping, handling and storage procedures, and comply with all applicable safety and environmental standards.



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#### **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**

Diethanolamine 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 coiled tank cars, tank wagons in certain areas, and drums of 490 pounds (222 kilograms) net weight. Small samples are available upon request.

#### **BIODEGRADABILITY AND ENVIRONMENTAL SAFETY**

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