



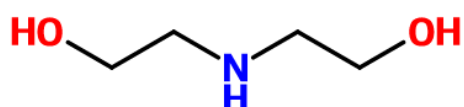
## Technical Data Sheet

# Diethanolamine

2,2'-iminodiethanol, Ethanol, 2,2'-iminobis-

CAS Number: **111-42-2**

Formula:  $\text{HN}(\text{C}_2\text{H}_4\text{OH})_2$



### DESCRIPTION:

Diethanolamine is a clear, colorless and hygroscopic liquid, with a mild ammonia-like odor.

### APPLICATION:

Diethanolamine (DEA) is used for a chemical intermediate in the manufacture of detergents, personal care products, surfactants, agricultural chemicals (herbicides), gas treating as a gas scrubber in refinery and corrosion inhibitors.

### PHYSICAL PROPERTIES:

Form	Liquid
Appearance	Clear
Molecular Weight	105.14
pH	11.5
Boiling Point, 760 mm Hg, °C	269.9
Flash Point, PMCC, °C	154.4
Melting Point, °C	27
Specific Gravity, 30/20°C	1.0919
Vapor Pressure, mm Hg, 20°C	<0.01

### REGULATORY INFORMATION:

IMDG Classification	Not Regulated
HMIS Code	2-1-0
HS Code	2922.12.00



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### **HANDLING AND STORAGE:**

Keep the material in the anhydrous state to prevent severe corrosion to the carbon steel or aluminum tank and related equipment. For longer term color stability, it is recommended that the product be stored under an inert atmosphere. Ethanolamine products have 24 months of shelf-life time under unopened drum. The product should be re-evaluated after 24 months to reconfirm the product quality, if properly stored and protected from contamination.

For storage conditions, Product is hygroscopic, water contamination should be avoided. Keep container tightly closed without air contamination. The periods of exposure to high temperatures should be minimized. Avoid directly contact with sunlight and higher temperature.

### **PACKAGING:**

Product is available in bulk truck, ISO Tank, IBC tank, steel drum with epoxy phenolic coating. Because of high freezing point of product, steel drum without coating liner (SDNC) is available since it is a particular packaging used for thawing requirement in cold weather country or winter season. Therefore, user should assume product quality concerns of coloration and deterioration. The product in SDNC should be short term storage.

For drum thawing recommendation, the unfreezing should be done by storage in hot room with temperature range of 30-40°C. In another way, the drums are heated by hot water or electric heating coils. But the epoxy-phenolic liner in drums may be degraded by long-term external strap heating, resulting in effect of product quality. Drums must be vented while it is heated to prevent the pressure buildup for safety concern.

### **SAFETY:**

Wear appropriate personal protective equipment, including appropriate respiratory protection. Avoid contact with skin, eyes or clothing. For information on the toxicity and handling of this product, please find in the Material Safety Data Sheet.

### **TERMS & CONDITIONS:**

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