



## **DOW N-methylethanolamine (NMEA)**

### **Product Description**

DOW N-methylethanolamine (NMEA) is a secondary amine. As with Dow's family of alkyl alkanolamines, NMEA is a versatile, polyfunctional molecule that combines the characteristics of amines and alcohols. NMEA is capable of undergoing reactions typical of both alcohols and amines, forming quaternary amine salts, soaps, esters and amides. This makes NMEA a useful intermediate in the synthesis of numerous products, and has resulted in its use in many diverse areas, including coatings, textile lubricants, polishes, detergents, pesticides, personal care products, and pharmaceuticals.

### **Features and Benefits**

#### **Coatings**

- In water- and solvent-based coatings, increases solubility of other components and enhances solution stability
- In cathodic electrodeposition systems to chain-extend high MW polyepoxides with a polyol

#### **Household Specialties and Personal Care, Textiles, and Lubricants**

- When reacted to form surface-active soaps, produces an excellent emulsifying and dispersing agent
- In textiles, acts as a brightening agent in dyeing of polyester/cotton blends

#### **Pharmaceuticals**

- Widely used as intermediate for production of active pharmaceutical ingredients (e.g. antihistamines)

## Typical Physical Properties<sup>(1)</sup>

Properties	N-Methylethanolamine
Formula	CH <sub>3</sub> NH-CH <sub>2</sub> CH <sub>2</sub> OH <sub>2</sub>
Molecular Weight	75.11
CAS Number	109-83-1
Specific Gravity at 20/20°C	0.940
Sp. Gr./ Δt °C	0.00078
Boiling Point, °C at 760 mm Hg	159.6
At 50 mm Hg, °C	89.6
At 10 mm Hg, °C	60.5
Vapor Pressure at 20°C, mm Hg	0.48
Freezing Point, °C (°F), (Pour Point)	-5 (23)
Solubility at 20°C, % by wt	
In Water	Complete
Water In	Complete
Viscosity, cP	
At 20°C	13.0
At 40°C	6.5
Refractive Index, n <sub>D</sub> , 20°C	1.4390
Heat of Combustion, BTU/lb (cal/g) at 25°C	-12,710 (-7060)
Flash Point, Setflash Closed Cup (ASTM D3278), °C (°F)	73 (163)

(1) Data represent typical physical properties only and should not be construed as product specifications.

## Product Stewardship

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted by customers and potential customers prior to use.

### For More Information

North America: toll-free 1-800-447-4369  
fax 1-989-832-1465  
Europe: toll-free +800 3 694 6367  
call +32 3 450 2240  
fax +32 3 450 2815  
Pacific: call +800 7776 7776  
fax +800 7779 7779  
Other Areas: call 1-989-832-1560  
fax 1-989-832-1465

[www.dowamines.com](http://www.dowamines.com)

NOTICE: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

