



File No.	TDS001
Revision	NA
Eff.Date	Jan 01 2018

Technical Data Sheet

Product name: N-Methylethanolamine (NMEA)

Synonyms

methylethanolamine; monomethylethanolamine; N-Methyl-2-ethanolamine; N-Methylaminoethanol ; monomethylaminoethanol; N-monomethylaminoethanol

Appearance

NMEA is a clear, colorless liquid with mild ammoniacal odour at room temperature.

Physical & Chemical properties

NMEA is completely miscible in water. It is also soluble in most organic solvents.

NMEA is a versatile, polyfunctional molecule that combines the characteristics of amines and alcohols. It is capable of undergoing reactions typical of both alcohols and amines, forming quaternary amines salts, soaps, esters and amides.

Specifications

Property	Specification	Test Method
NMEA	99.5% min	GC
Water	0.3% max	ASTM D 1364
Color (APHA)	20 max	ASTM D 1209

Packing

Steel drum or PE drum -195 kgs net./drum ,IBC,Bulk

Chemical Physical properties

Property	Value	Property	Value
CAS#	109-83-1	Refractive index n_D^{20}	1.4389
EINECS#	203-710-0	Density(20°C)	0.94 kg/l
Form	Liquid	Viscosity(20°C)	13 cPoise
Color	Colorless	Vapor pressure(20°C)	1 mbar
Odour	Ammoniacal	Critical temperature	Complete
Mol. weight	75.11	Critical pressure	357 °C
Boiling point	157-163°C	Heat of formation	52.2 mbar
Flash point	74°C(DIN51755)	Heat capacity(20°C)	-198,000 kJ/kmol
Explosion limits	Lower LEL 1.6 vol% Upper UEL 19.8 vol%	Thermal conductivity	0.483 kcal/kg K
Ignition temperature	350°C(DIN 51794)		0.187 W/m K
			38.9 dyne/cm



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			(20°C) Surface tension(20°C)	
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Storage

Carbon steel is adequate for storage of NMEA. Stainless AISI 316L is preferable if color stability is to be maintained over a long period. Copper and copper alloys should be avoided. For bulk storage a nitrogen atmosphere is necessary to prevent the absorption of moisture and discoloration.

Labeling

See Material Safety Data Sheet.

Transport regulations

See Material Safety Data Sheet.

Toxicology/Ecotoxicology

See Material Safety Data Sheet.

Characteristics

See Material Safety Data Sheet.

Applications

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).

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Supercedes TDS - NA

Legal notice:

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guarantee is provided to the client that the product is adapted to the specific use for which it is intended by the client. The client should perform his own tests to determine the suitability for a particular purpose. Our only intension is to rapidly provide the user with information on the various application possibilities of our products. It being understood that the client should adapt the information to the specific conditions of their use and to the characteristics of other products with which they are mixed.