

Methyldiethanolamine (MDEA)

EC name: 2,2'-methyliminodiethanol CAS name: Ethanol, 2,2'-(methylimino)bis- IUPAC name: 2,2'-(methylimino)diethanol EC number: 203-312-7 CAS No.: 105-59-9

Product

Methyldiethanolamine is a clear, colorless or pale yellow liquid with an ammonia odour. It is miscible with water, alcohol and benzene.

Description

Item	Unit	Specification	Test method
Methyldiethanolamine	%	99,2 MIN	(GC) M-0007-02-10
Mass portion of admixtures	%	0,8 MAX	(GC) M-0007-02-10
Including: Water	%	0.2 MAX	Karl Fisher coulometer (Mettler Toledo DL 36 KF) (GC)
Monooxiethylated mothyldiethanolamine		0.2 MAX	M-0007-02-10
Colour	(Pt.-Co.)	50 MAX	ASTM D 1209-93
Density, at 20°C	g/sm ³	1,036 - 1,042	GOST18995.1-73 p1

Typical Physical Properties

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

Formula	C5H13NO2
Appearance	Colorless liquid
Molar mass	119.16 g mol ⁻¹

Property	Results
Physical state at 20°C and 1013 hPa	liquid
Melting / freezing point	-21.3 °C at 1013 hPa
Colour	colourless
Odour	ammonia-like
Boiling point	243.3 °c at 1013 hPa
Relative density	1.04 g/cm3 at 20 °C
Vapour pressure	0.0027 hPa at 25°C
Surface tension	not surface active
Water solubility	>1000g/l at 20°C
Partition coefficient n-octanol/water (log value)	-1,08 at 25°c and PH 10.1

Flash point	138 °C at 1013 hPa
Flammability	Non flammable upon ignition. The substance has no pyrophoric properties and does not liberate flammable gases on contact with water.
Explosive properties	non explosive
Self-ignition temperature	280 °C at 1013 hPa
Oxidising properties	no oxidising properties
Granulometry	not applicable
Stability in organic solvents and identity of relevant degradation products	not applicable
Dissociation constant	8.52 at 25°C
Viscosity	99.05 mm ² /s

Packaging

Metal drums:

215kg in 1 drum. 110 drums in 1 x 40' container
80 drums in 1 x 20' container

Plastic drums:

222 kg in 1 drum. 108 drums in 1 x 40' container
80 drums in 1 x 20' container

IBC container - 1040 kg net Bulk

Fields of application

- Detergents;
- Treatment of acidic gases;
- Coatings;
- Textiles;
- Paper chemicals;
- Pharmaceuticals

Storage and Handling

Fire preventions: Keep away from sources of ignition - No smoking. Aerosol preventions: Ensure thorough ventilation of store and work areas. Environmental precautions: Hermetic of equipment, product storage tanks, containers. Segregate from acids and acid forming substances.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Storage duration: 12 Months.

Data on the storage life specified in the safety data are not a contractual guarantee of the properties of the product.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal

Safety

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