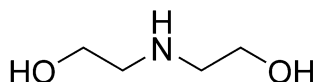


Technical Data Sheet DIETHANOLAMINE (DEA)

General



MW: 105.1 gmol⁻¹
CAS No.: 111-42-2
EINECS No.: 203-868-0
IUPAC name: 2,2'-iminodiethanol

Diethanolamine (DEA; CAS 111-42-2) contains one secondary amine and two alcohol groups. DEA is a highly viscose liquid with a freezing point of 28 °C. It is mainly used for gas sweetening and in the manufacture of light-duty detergents and shampoos. DEA can also be cyclized to make morpholine.

Sales Specification

Characteristic	Unit	Specification	Methods of Analysis
Appearance	-	Clear liquid or white solid	200
Assay	w%	min 99.0	549
Monoethanolamine	w%	max 0.50	549
Triethanolamine	w%	max 0.30	549
Water	w%	max 0.2	305
Color	Hazen	max 20	201

Methods of Analysis are available upon request.

In case of dispute, the listed Method of Analysis will be used as reference methods.

Physical and Chemical Properties

Property	Value	Property	Value
Form	viscous liquid	pH	11,5 at 10 % solution
Colour	colourless	Melting point/freezing point	27 °C at 1 013 hPa
Odour	ammoniacal	Boiling point/boiling range	270 °C at 1 013 hPa
Flammability (liquids)	Not classified as a flammability hazard	Flash point	100 - 199 °C
Explosive properties	Not explosive	Ignition temperature	> 150 °C
Oxidizing properties	The substance or mixture is not classified as oxidizing	Vapour pressure	0,00009 hPa at 20 °C
Water solubility	completely miscible	Density	ca.1 100 kg/m ³ at 20 °C
Solubility in other solvents	Soluble in ethanol and acetone	Relative density	1,1 at 20 °C
		Partition coefficient: n-octanol/water	log Pow: -2,46
		Viscosity, dynamic	380 mPa.s at 30 °C

This information is issued by AkzoNobel to Customer. The information is, to AkzoNobel's actual knowledge and understanding of the subject matter in this document, considered accurate and reliable as of the date appearing above and is presented in good faith. Because production process as well as use conditions and applicable laws may differ from one location to another and may change over time, Customer is responsible for determining whether the information in this document is appropriate for Customer use and at the time in question. Since AkzoNobel has no control over how this information may be ultimately used and for other reasons stated above, all liability is expressly disclaimed and AkzoNobel assumes no obligation or liability therefore. No warranty, express or implied, is given, including without limitation warranties of fitness for particular purpose or non-infringement, each of which is specifically disclaimed.