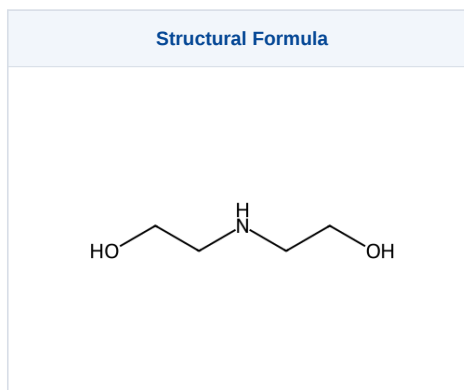


CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

Product Name	Diethanolamine
C.A.S. Number	111-42-2
Molecular Formula	C ₄ H ₁₁ NO ₂
Molecular Weight	105.14
Grade / Standard	99% min
Physical Form	Clear to pale yellow viscous liquid
Product Category	Surfactants & Oleochemicals
Country of Origin	India



ANALYTICAL RESULTS

S. No.	Test Parameter	Specification	Result	Method
1	Description	Clear to pale yellow viscous liquid	Complies	Visual
2	Identification	Conforms to the structure of the substance	Complies	FTIR / Chemical test
3	Assay	Not less than 99.0 % w/w	99.14	Titrimetry (Epton / two-phase)
4	pH (10 % aqueous solution)	6.0 – 9.0	8.3	Potentiometry
5	Colour (Klett, 5 % solution)	Not more than 40	9	Klett colorimetry
6	Free Oil / Unsulphated Matter	Not more than 2.0 % w/w	0.49	Solvent extraction
7	Sodium Sulphate	Not more than 1.5 % w/w	0.54	Titrimetry
8	Viscosity at 25 °C	As per specification	2889 cP	Brookfield viscometry
9	Structure	Conforms to reference structure	Complies	FTIR / NMR

Remarks Material supplied against this specification is analysed on every production lot and conforms to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade. Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.	Checked and Approved by Prem Panchal Quality Assurance Scapex Exports Pvt. Ltd.
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This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.