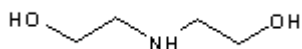
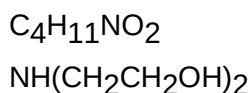


PRODUCT CODE: 191287

Diethanolamine (USP-NF) pharma grade



M.= 105,14

CAS [111-42-2]

EINECS 203-868-0

TARIC 2922 12 00 00

SYNONYMS: 2,2'-Dioxydiethylamine, 2,2'-Iminodiethanol, Bis(b-Hydroxyethyl)Amine

PHYSICAL DATA: liquid, Clear, Colourless, Miscible with water, alcohol, acetone, chloroform and glycerin. Slightly soluble to insoluble in benzene, ether and petroleum ether. • Hygroscopic • D 30/4 1,0881 • M.P.: 28 °C • B.P.: 271 °C • pH(10 g/l sol.)11 • n₂₀/D : 1,4776 • Flash P.:137 °C • Ign. T.:370 °C • Vap. press. (20 °C) 0,01 hPa • Viscosity 30 °C 352 mPa.s • D. M. 30 °C 2,81 Debye • Expl. limit 2,1 %(V)10,6 %(V) •

BIBLIOGRAPHY: Merck Index **12**, 3.156 13, 3.134 Sax **BKA750** • Safety **2**, **1183 D** • Kühn-Birett **D 6** • Ullmann **(5.)10**, 1 • Beilstein **4**, **283 II**, **729 III**, **689 IV**, **1514** • BRN 605315 • ACS **XI** • USP -**NF 38** •

HAZARDOUS: C.E: 603-071-00-1 • RTECS: KL 2975000 • LD50 oral rat 710 mg/kg • LD50 skn rbt 12.200 mg/kg • VLA-ED 0,46 ppm2 mg/m3



H: H302 • H315 • H318 • H373 •

P: P260 • P264 • P270 • P280 • P301+P312 • P302+P352 • P305+P351+P338 • P310 • P314 • P321 • P330 • P332+P313 • P362 • P501 •

TRANSPORT REGULATIONS: UN: 1760 • ADR: 8/III • IMDG: 8/III • IATA: 8/III • PAX: 852 • CAO: 856 • (E) •
WEIGHT/VOLUME INFORMATION: 1l~1,09 kg 1kg~0,91 l

SPECIFICATIONS:

Assay (Acidim.) calc. a.d.s.

98,5-101,0%

Identity :

Identity according to Pharmacopoeias:

passes test

Freezing point	27-28°C
Refractive Index n30/D	1,473-1,476

Maximum limit of impurities

Triethanolamine (G.C.)	1,0%
Water (H2O)	0,15 %

Elemental impurities (ICH Q3D):

Class 1

Cd	0,5 ppm
Pb	0,5 ppm
As	1,5 ppm
Hg	1,5 ppm

Class 2A

Co	5 ppm
V	10 ppm
Ni	20 ppm

Class 2B

Tl	0,8 ppm
Au	10 ppm
Pd	10 ppm
Ir	10 ppm
Os	10 ppm
Rh	10 ppm
Ru	10 ppm
Se	15 ppm
Ag	15 ppm
Pt	10 ppm

Class 3

Li	55 ppm
Sb	120 ppm
Ba	140 ppm
Mo	25 ppm
Cu	250 ppm
Sn	600 ppm
Cr	25 ppm