>>**Entry Name: Diethylenetriamine,** 8CI
ENTRY UNDER REVIEW
Synonym(s): *N*-(2-Aminoethyl)-1,2-ethanediamine, 9CI. Di(2-aminoethyl)amine. 2,2'-Diaminodiethylamine. Bis(2-aminoethyl)amine. 3-Aza-1,5-pentanediamine. 3-Aza-1,5-diaminopentane. 2,2'-Iminobisethylamine. 2,2'-Iminodi(ethylamine). 1,4,7-Triazaheptane

CAS Registry Number: 111-40-0
Related CAS Registry Numbers(s): 37296-80-3 52601-80-6 56187-04-3

$H_2NCH_2CH_2N'HCH_2CH_2N''H_2$

Molecular Formula: $C_4H_{13}N_3$
Molecular Weight: 103.167
Accurate Mass: 103.110947
Percentage Composition: C 46.57%; H 12.70%; N 40.73%
Source/Synthesis: Manuf. by reaction of ammonia with 1,2-Dichloroethane BGD76-O or 2-Aminoethanol BGX64-F
Use/Importance: Used in manuf. of chelating agents, wet strength resins, epoxy resin curing agents, polyamides, surfactants and corrosion inhibitors. Used in photometric detn. of Ni
Physical Description: Viscous liq. with an ammoniacal odour
Melting Point: Mp –39°
Boiling Point: Bp 208°. Bp_3 82-83°
Solubility: Misc. H_2O, EtOH
Density: d_4^{20} 0.9542
pKa Value: pK_{a1} 10.1; pK_{a2} 9.1; pK_{a3} 3.9 (25°)
Refractive Index: n_D^{20} 1.4826
Other Data: Vp 0.37 mmHg (20°)
Hazard & Toxicity: Corrosive and irritating to skin, eyes and respiratory tract. Skin and pulmonary sensitiser. LD_{50} (rat, orl) 1080 mg/kg. LD_{50} (rbt, skn) 1090 mg/kg. Fl. p. 98 ° (oc), autoignition temp. 358°. OES: long-term 1 ppm (Sk)

Aldrich: D9385-6
Fluka: 32305
Sigma: D1551

>>**Derivative:** Hydrochloride (1:3)

CAS Registry Number: 4109-20-0
Physical Description: Needles (EtOH/HCl)
Melting Point: Mp 228-230 dec.°

>>**Derivative:** Tripicrate

Physical Description: Yellow prisms (H_2O)
Melting Point: Mp 210-212 dec.°

>>**Derivative:** Tri-Ac
Synonym(s): *N,N*-Bis[2-(acetylamino)ethyl]acetamide

Molecular Formula: $C_{10}H_{19}N_3O_3$
Molecular Weight: 229.278
Accurate Mass: 229.142642
Percentage Composition: C 52.39%; H 8.35%; N 18.33%; O 20.93%
Physical Description: Felted needles (EtOH)
Melting Point: Mp 220°

>>**Derivative:** Tribenzoyl

CAS Registry Number: 95803-04-6
Molecular Formula: $C_{25}H_{25}N_3O_3$
Molecular Weight: 415.491
Accurate Mass: 415.189592
Percentage Composition: C 72.27%; H 6.06%; N 10.11%; O 11.55%
Physical Description: Prisms ($CHCl_3$)
Melting Point: Mp 166°
Rare Chemicals Library: S1593-9