

Diethylenetriamine (DETA)

CAS #000111-40-0, N-(2-aminoethyl-1,2-ethanediamine)

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Diethylenetriamine (CAS #000111-40-0, N-(2-aminoethyl)-1,2-ethanediamine) is the next to the lowest molecular weight product containing two primary and one secondary nitrogen. Clear and colorless with an ammonia-like odor, DETA is a single-component product.

Applications

- Asphalt Additives
- Chelating Agents
- Corrosion Inhibitors
- Drainage Aids
- **■** Epoxy Curing Agents
- Fabric Softeners
- Lube Oil & Fuel Additives
- Mineral Processing Aids
- Polyamide Resins
- Surfactants
- Textile Additives
- Paper Wet-Strength Resins

Typical Physical Properties of Diethylenetriamine (DETA)

The data provided for these properties are typical values, and should not be construed as sales specifications.

Property	SI Units
Molecular Weight	
(Linear component)	103.17
(Typical product)	103.2
Boiling Point @ 760 mm Hg, °C	206.9
Freezing Point, °C	-39
Density, g/ml @ 20°C	0.953
Specific gravity 20°/20°	0.952
Viscosity, cp @ 20°C	7.16
Kinematic viscosity, cst @ 25°C	5.8
Kinematic viscosity, cst @ 40°C	3.7
Vapor pressure @20°C, mm Hg	0.08
Specific heat, cal/g °C @ 20°C	0.65
Thermal conductivity, cal/cm-sec-°C @ 20°C	0.000523
Surface tension, dynes/cm @ 20°C	41.8
Coefficient of expansion, 1/°C @ 20°C	0.00106
Refractive index @ 20°C	1.483
Dielectric constant @ 23°C and 1 kHz	12.2
Electrical conductivity, µmhos/cm @ 25°C	0.86
Heat of formation, 25°C BTU/lb	-403
Heat of vaporization, @ 760 mm Hg, °C, BTU/lb	197
Heat of combustion, BTU/lb 25°C	-13910
Ionization constants, K1 @ 25°C	0.65x10 ⁻⁴
pH of 1 wt% solution	11.6
Nitrogen content, wt.%	40.6
Amine value, mg KOH/g	1626

^{*}Trademark of Dhalop Chemicals Pvt. Ltd.