

## Properties and Standard Specifications

### Higher Ethylenepolyamines

#### Physical Properties

Product Name				Higher Ethylenepolyamines - HEPA
Molecule formula				$H_2N - (C_2H_4 - NH)_{5-7} - H$
Appearance				Clear solution
Relative Density (20/20°C)				1.017
Boiling Point at 101.3 kPa	[°C]			--
at 1.33 kPa	[°C]			--
Pour Point	[°C]			< 0
Vapour Pressure at 20 °C	[Pa]			< 1
Total Nitrogen content	[wt. %]			33
Viscosity at 20 °C	[mPa.s]			≈ 600
Total Amine Value	[mgKOH/gr]			approx. 1200

#### Standard Specifications

Item	Unit	Value			Method of Analysis
		Minimum	Typical	Maximum	
Appearance	-	Clear, free of suspended matter			DEL 119
Colour	Gardner		< 5	10	DEL 117
Water	weight %		< 0.1	0.5	DEL 115
PEHA + higher Amines	area %	90	> 95		DEL 139