

**Technical Bulletin****E-GRADE<sup>®</sup> MEA amine****E-GRADE<sup>®</sup> Monoethanolamine**

**E-GRADE<sup>®</sup> MEA amine** is a clear, water-white, hygroscopic, strong primary amine, with a mild ammoniacal odor.

**APPLICATIONS** E-GRADE<sup>®</sup> MEA amine is a strong primary amine. It is the most basic of the common amines used in formulating cleaners and strippers. Its low molecular weight makes it quite inexpensive to use on a mole basis. E-GRADE<sup>®</sup> MEA amine is very soluble in water.

**SALES SPECIFICATIONS**

<b><u>Property</u></b>	<b><u>Specifications</u></b>	<b><u>Test Method*</u></b>
Appearance	Clear and substantially free of suspended matter	ST-30.1
Chlorides (Cl), ppm	0.5 max.	ST-5.50
Color, Pt-Co	15 max.	ST-30.12
Metals, ppb		ICP-MS or GFAA
Aluminum (Al)	50 max.	
Antimony (Sb)	50 max.	
Arsenic (As)	50 max.	
Barium (Ba)	50 max.	
Cadmium (Cd)	50 max.	
Chromium (Cr)	50 max.	
Cobalt (Co)	50 max.	
Copper (Cu)	50 max.	
Gallium (Ga)	50 max.	
Germanium (Ge)	50 max.	
Gold (Au)	50 max.	
Iron (Fe)	50 max.	
Lead (Pb)	50 max.	
Lithium (Li)	50 max.	
Magnesium (Mg)	50 max.	
Manganese (Mn)	50 max.	
Nickel (Ni)	50 max.	
Potassium (K)	30 max.	
Silver (Ag)	50 max.	
Sodium (Na)	50 max.	
Strontium (Sr)	50 max.	
Tin (Sn)	50 max.	
Titanium (Ti)	50 max.	
Zinc (Zn)	30 max.	
Monethanolamine, wt%	99.5 min.	ST-35.180 or ST-35.183
Refractive Index, 20°C	1.4400 min. – 1.4600 max.	ASTM D-1218
Refractive Index, 25°C	1.4521 min. – 1.4529 max.	ASTM D-1218
Water, wt%	0.15 max.	ST-31.53, 6

\*Methods of Test are available from Huntsman Corporation upon request.

**ADDITIONAL INFORMATION****Regulatory Information**

DOT/TDG Classification	Ethanolamine
	Hazard Class 8, UN 2491, Packing Group III,
	Corrosive
HMIS Code	3-1-0
CAS Number	141-43-5
TSCA Inventory	Yes
WHMIS Classification	E
Canadian DSL	Yes

**Typical Physical Properties**

Boiling point, °C (°F)	171 (339)
Flash point, PMCC, °C (°F)	96 (204)
Freezing point, °C (°F)	11 (51)
pH	12
Specific gravity, 20/20°C	1.02
Vapor pressure, mm Hg, 20°C (68°F)	0.2
Viscosity, cSt, 20°C (68°F)	24
VOC Content by ASTM D 2369 (%)	98
Water solubility	> 10
Weight, lb/gal, 20°C	8.47

**TOXICITY AND SAFETY**

For additional information on the toxicity and safe handling of this product, consult the Material Safety Data Sheet prior to use of this product.

**HANDLING AND STORAGE**

E-GRADE<sup>®</sup> MEA amine may be satisfactorily stored in stainless steel tanks using stainless steel pipes and pumps.

For longer term color stability, it is recommended that the product be stored under an inert atmosphere. Solid sediment may form upon standing. There should be circulation in the storage vessel to keep solids suspended.

Low pressure steam coils in storage tanks and heat tracing of transfer lines should be provided in cases where low environmental temperatures may make pumping of the product difficult.

**BIODEGRADABILITY AND ENVIRONMENTAL SAFETY**

E-GRADE<sup>®</sup> MEA amine undergoes moderate biodegradation and is not expected to be persistent in the environment.

**AVAILABILITY**

Product is available in tank wagons and drums of 470 pounds (213 kilograms) net weight. Small samples are available upon request. Samples are available by contacting our sample department at 1-800-662-0924.

1160-0509

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