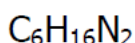


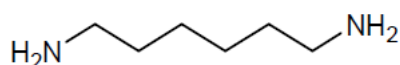
DYTEK® Hexamethylenediamine (HMD)

Hexamethylenediamine



Product Description

A greater than 99.9% pure aliphatic diamine, available from 70–100 wt% concentrations in water (in Europe, product is also available as 60 wt% solution). Aqueous solutions of 60–80 wt% DYTEK® HMD are liquids. Higher concentrations are solids at room temperature, but shipped (bulk) as warm liquids.



Applications

- Isocyanates
- Epoxy curing agents
- Petroleum additives
- Polyamide resins, adhesives, inks, fibers
- Scale and corrosion inhibitors
- Water treatment chemicals
- Clay Stabilizer
- Carbohydrate Binder

Typical Composition (wt %)

Hexamethylenediamine	60–100
Water	0.1–40
Color, APHA	2
1,2-Diaminocyclohexane, mpm*	4
2-Aminomethylcyclopentylamine, mpm	19
2-Methylpentamethylenediamine, mpm	3
Polarographically Reducible Impurities, mpm	8

*moles per million moles

General Information

CAS Name	1,6-Hexanediamine			
CAS Registry Number	124-09-4			
Molecular Weight	116.2			
	HMD Concentrations, wt % *			
	70**	85	90	100
Freezing Point, °C	6	24	30	41
Boiling Point, °C	—	—	—	204
Initial Boiling Point, °C	111.5	122.3	129.5	—
Specific Gravity, 25°C	0.929	0.900	0.889	0.854
Density, 25°C, lb/gal	7.74	7.47	7.38	7.09
Flash Point (COC), °C	116	107	102	85
Vapor Pressure, mmHg, 60°C, 100% HMD	3			
Solubility in Water, 30°C, g/100 g, 100% HMD	960			
Heat of Solution in Water, 43.8°C, kcal/mol, 100% HMD	8.2			
pK _{a1} , 25°C	11.02			
pK _{a2} , 25°C	10.24			
pH, 5 wt% (aqueous)	12.4			

** Not available in Europe.

DYTEK® Hexamethylenediamine (HMD)

Shipping Information

	DYTEK® HMD Concentration (wt %)			
Grade	60*, 70**, 80	85	85-95	100
Shipping Name	Hexamethylenediamine Solution	Hexamethylenediamine Solid		
DOT/IMO Label	Corrosive	Corrosive		
UN Number	1783	2280		
Packaging Group	II	III		
Hazard Class	8	8		
Form	Liquid	Solid at 20°C; shipped (bulk) as a warm liquid		
Shipping Weights, lb, net	175,000	175,000	175,000	175,000
Tank Car	45,000	45,000	45,000	45,000
Tank Truck	400 lb/181.44 kg	400 lb/181.44 kg	Not Available	380 lb/172.37 kg
Drum				

* Only available in Europe.

** Not available in Europe.

For Samples and Information:

INVISTA Specialty Intermediates

www.DYTEK.INVISTA.com

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