

Technical Data Sheet

DEHA anhydrous

Chemical Synonym

N-Ethyl-N-Hydroxy-Ethanamine; Diethylhydroxylamine Anhydrous

Applications

- Electronic chemicals
- Photographic chemicals
- Polymer processing
- Upstream o&g-production
- Water treatment industrial

Product Description

DEHA Anhydrous is available as a light yellow liquid with an amine-like odor.

DEHA products are manufactured by the reaction of a triethylamine and a peroxide, followed by purification and distillation. Eastman manufactures DEHA Anhydrous and DEHA 85%.

Both DEHA Anhydrous and DEHA 85% function primary as radical and oxygen scavengers.

DEHA is used in boiler water treatment applications, as an oxygen scavenger for medium and high pressure boilers. DEHA also functions as a free radical scavenger in polymerization, it is a short stopper in the production of styrene butadiene rubber.

Beyond its application as scavenger, DEHA is also used in refinery chemicals and other niche markets, such as:

- Microelectronics industry: for example, DEHA is formulated to remove residual photoresist and other residue from microelectronic parts.
- Photographic industry: DEHA is blended with other chemicals to produce good color development.
- The reduction of toxic heavy metals such as hexavalent chromium to their more environmentally-friendly counterparts such as trivalent chromium is done using an aqueous solution containing DEHA.

Typical Properties

Property	Typical Value, Units
General	
Molecular Formula	(CH ₃ CH ₂) ₂ NOH
Molecular Weight	89.1 g/mol
Appearance	Light yellow liquid
Autoignition Temperature	265 °C
Boiling Point ^a	
@ 760 mm Hg	134 °C
Coefficient of cubical expansion	0.00101/ °C
Density	
@ 20°C	0.869 g/cm ³
Flash Point	
Closed Cup	46.5 °C
Freezing Point	-9 °C
Octanol-water partition coefficient, log Pow	
@ 50°C	0.5

pH	Alkaline
Refractive Index @ 25°C	1.4183
Surface Tension	25.6 mN/m
Vapor Density (air = 1)	3.1
Vapor Pressure @ 20°C	5.30 hPa
Water solubility @ 20°C	Soluble (450 g/l)

^aDecomposes

Packaging

- Bulk
- Plastic drums (175 kg net)

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