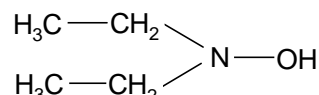




## DEHA 99

Specification number: DEHA99-012007

### 1. Chemical description:

Chemical name: N,N-Diethylhydroxyloamine 99  
Chemical formula:  $(C_2H_5)_2NOH$ 

No CAS: 3710-84-7

No EINECS: 223-055-4

### 2. Typical properties:

Appearance at 20° C: Colourless to light yellow liquid  
Molecular weight: 89,1 g / mol  
Vapour pressure at 25° C: 33 hPa  
Solubility in water at 20° C: Complete below 35 % and above 85 %  
Initial boiling point at 760 mm Hg: 125° C (decomposition)  
Flash point: 46° C  
Freezing point: -6° C  
Density at 20° C: 0,870 ± 0,005 g / cm<sup>3</sup>

### 3. Specification values:

No.	Property	Unit	Specification		Test Method
			Min	Max	
1	DEHA content	wt. %	99,0	-	DJCHEM-201/00 (Titration) DJCHEM-203/04 (GC)
2	DEA content	wt. %	-	0,1	DJCHEM-203/04 (GC)
3	Density at 20° C	g / cm <sup>3</sup>	0,865	0,875	ISO 758:1976
4	Phase separation volume < 20° C	%	-	0	Visual
5	Colour	APHA	-	30	DJCHEM-204/04 ISO 6271:1997
6	Appearance	-	Clear without solids		Visual

Date: 19-03-2007

Signature:

# HANDLING PRECAUTIONS

- DEHA is a harmful and flammable liquid
- DEHA can react violently with strong oxidants
- For further detailed information, please refer to Material Safety Data Sheet

## APPLICATIONS

- Short stopper of polymerization in production of SBR/NBR and poly butadiene polymer. Polymers short stopped by DEHA are stable, and do not change their viscosity due to incomplete reaction and maintain their color.
- Polymerization inhibitor used as anti-popcorn agent in styrene/butadiene monomer production. Due to the inhibition of the formation of high cross-linked polymer, damage of equipment and pipes can be avoided.
- Water treatment chemical to avoid corrosion in water boilers by binding oxygen (Oxygen scavenger). This maximizes the energy use and life of the boiler system.
- Film development industry, where it is used as anti-oxidant in formulations for rapid development of color prints. It also acts as an initiator in the development process.
- DEHA acts as an inhibitor because it scavenges peroxides, oxygen and organic radicals. It is used as a colour stabilizer in polymers and fuel systems.
- Reagent for the selective reduction of quinones to quinols under mild conditions.
- A patent search also showed usage in the following applications:
  - Preparation of phentyltetrahydrophthalimide herbicides.
  - Catalyst in the formation of ceramic coatings from a ceramic precursor.
  - Vulcanizing agent for silicone rubbers free of organometallic catalysts.
  - Catalysts for hydrolysis of siloxanes in silicone rubber manufacturing.
  - Anti-foulants and color for distillate fuel oils.
  - Oxidizing agents for post-leaching kaolinite clays.
  - Manufacture of room temperature curable sealants.