

DESCRIPTION

Cyclohexylamine is essentially a colorless, flammable liquid, and possesses a strong fishy odor. It is soluble in water, ethanol, benzene, and ethyl acetate. It is stable under recommended storage conditions. It is a useful intermediate in the production of many other organic compounds. Used to inhibit corrosion in boiler feed water and to manufacture insecticides, plasticizers, dry-cleaning soaps, rubber chemicals, dye stuffs, and gas absorbents. [ACGIH]

PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL PROPERTIES	SPECIFICATIONS
CAS Number	108-91-8
EC Number	203-629-0
Formula	C ₆ H ₁₃ N or C ₆ H ₁₁ NH ₂
Molecular Weight	99.17 g/mol
Physical State	Liquid
Flammability Limits	0.7% (lower limit); 8.2% (upper limit)
Flash Point (C.C)	88 °F (31 °C)
Autoignition Temp.	560.48 °F (293.6 °C)
Melting Point	0.14 °F (-17.7 °C)
Boiling Point	274.1 °F (134.5 °C)
Odor	Ammonia Like
Density	0.864 g/cm ³
Threshold (odor)	Low: 2.6 [mmHg], High: 110.0 [mmHg]
Vapor density	3.42 (Air=1)
Vapor Pressure	11 mmHg (NIOSH, 2022)
Viscosity	2.10 Pa*s at 20 °C
Water Solubility	100%
Partition coefficient, (n-octanol/water)	Log Kow = 1.49

PRODUCT SPECIFICATIONS

ASSAY	SPECIFICATIONS
Cyclohexylamine (Assay)	99.5 wt % min.
Water	0.2 wt % max.
Platinum-Cobalt Color	20 max.

STORAGE AND HANDLING

HANDLING RECOMMENDATIONS

- Thoroughly review Safety Data Sheet before handling product.
- Keep containers closed when not in use.
- Open containers slowly to allow any excess pressure to vent.
- Keep away from heat, sparks, flame, or other sources of ignition.
- Protect small containers from physical damage.
- Use proper electrical grounding and bonding procedures when loading, unloading, and transferring.¹
- Refer to the U. S. Amines Safety Data Sheet for more information on materials to avoid.
- Use spark-resistant tools.
- Electrical equipment and circuits in all storage and handling areas must conform to requirements of national electrical code (Articles 500 and 501) for hazardous location.

STORAGE RECOMMENDATIONS

Recommended Blanketing	Dry Nitrogen ^{1,2,3}
Maximum 100 °F (37.8 °C)
Minimum 30 °F (-1.1 °C)
Recommended Pressure	Atmospheric
Bulk Quantities	Outside, detached tanks
Small Containers	Cool, dry, well-ventilated area

Note: See the National Fire Protection Agency (NFPA) #30 “Flammable and Combustible Liquids Code” and consult with qualified fire protection specialists to determine specific storage tank design requirements.

1. Refer to the U. S. Amines Safety Data Sheet for more specific health and environmental information. Safety Data Sheet and Product Descriptions for **Cyclohexamine** are available through your AdvanSix / U. S. Amines sales representative or @ AdvanSix.com. 2. Refer to NFPA #77 “Static Electricity” for proper electrical grounding procedures. 3. See the National Fire Protection Agency (NFPA) #30 “Flammable and Combustible Liquids Code” and consult with qualified fire protection specialists to determine specific storage tank design requirements. 4. Nitrogen blanketing should be used to retain quality. A white precipitate can form when product is exposed to air.

NOTE

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

CONTACT ADVANSIX

Contact AdvanSix to learn more about the benefits of our Chemical Intermediates

ADVANSIX.COM

1-844-890-8949 (TOLL FREE, U.S./CAN.)

+1-973-526-1800 (INTERNATIONAL)

ADVANSIX HEADQUARTERS

300 Kimball Drive, Suite 101
Parsippany, NJ 07054

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