

SAFETY DATA SHEET

SECTION 1 - COMPANY AND PRODUCT IDENTIFICATION

PRODUCT

Product Name: CYCLOHEXYLAMINE

Control Number: 00157

Product Description: Ethanol Amine

COMPANY IDENTIFICATION

Supplier: Chemical Distribution Solutions
1125 Oak St. Ste. 303
Conway, AR 72032

24 Hour Emergency Telephone: (800) 424-9300 CHEMTREC

General Information: (501) 978-1111

SECTION 2- HAZARDS IDENTIFICATION

GHS Classification:

[Health]

Acute toxicity, Oral Category 2
Acute toxicity, Dermal Category 3
Skin corrosion Category 1B
Serious eye damage Category 1

[Environmental]

Acute aquatic toxicity Category 3
Chronic aquatic toxicity Category 3

[Physical]

Flammable liquids Category 3 H226

GHS Label elements, including precautionary statements

Pictograms



Signal Word: Danger

Hazard statement(s)

H226 Flammable liquid and vapor.
H300 Fatal if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.

SAFETY DATA SHEET

SECTION 3 · COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS Number	%WT
Cyclohexylamine	108-91-8	100

SECTION 4 · FIRST AID MEASURES

FIRST AID PROCEDURES:

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention and continue flushing until medical personnel arrive.

Skin Contact: Remove contaminated clothing. Wash with soap and water. Get immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get immediate medical attention.

SECTION 5 · FIRE FIGHTING MEASURES

Suitable Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous combustion products: Oxides of carbon and nitrogen

Fire Fighting Procedures: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Unusual Fire and Explosion Hazards: Flammable liquid, soluble or dispersed in water. Containers can build up pressure if exposed to heat and/or fire. Use water spray to keep fire-exposed containers cool. Containers may rupture or explode in the heat of a fire.

SECTION 6 · ACCIDENTAL RELEASE and DISPOSAL MEASURES

Spills: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Large Spills: Dike spill area to contain liquid. Salvage as much re-useable liquid as possible into a suitable container. Then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to regulations. Avoid contaminating ground and surface water

SECTION 7 · STORAGE AND HANDLING

Handling: Keep locked up Keep container dry. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage: Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material.

SECTION 8 · EXPOSURE CONTROLS AND PERSONAL PROTECTION

SAFETY DATA SHEET

CHEMICAL DISTRIBUTION SOLUTIONS

Engineering Controls: Provide adequate ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. The level of protection and types of controls will vary depending upon potential exposure conditions.

Exposure Limits: Cyclohexylamine 10 ppm ACGIH 10 ppm OSHA

Personal Protective Equipment (PPE):

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin: If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

Clothing: Selection of protective clothing depends on work conditions, potential exposure conditions and may include gloves, boots, suits and other protective items.

Respirators: Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

Other Equipment: Eye wash station and shower in close proximity to use are advised.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: 87 °F

Autoignition Temperature: 559 °F

Boiling Point Range: 273-279 °F

Melting Point: 1 °F

Vapor Pressure: 10 mmHg

Vapor Density (Air-1): 3.4

Odor/Appearance: Colorless to light yellow liquid with amine odor.

Flammability Limits: lower: 3 Upper: 9

Specific Gravity: 0.87

Volatile %: No available data

Evaporation Rate (Water=1): No available data

pH: 11.5 @ 100 g/l

Solubility in Water: soluble

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal use and temperature conditions.

Conditions to Avoid: Keep away from heat, flame and other potential ignition sources.

Materials to Avoid: Strong acids, and oxidizers.

Hazardous Polymerization: Will not occur under normal use and temperature conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Signs and Symptoms of Overexposure:

Skin: Symptoms of redness, irritation and burns Corrosive to skin on contact.

Eyes: Vapors are irritating. Liquid contact can causes severe irritation, pain and tissue damage.

Inhalation: Causes severe irritation of the respiratory tract. High concentrations can cause burns.

Ingestion: Causes severe irritation and possible burns of the mouth, throat and esophagus. May be harmful or fatal if swallowed.

Acute oral toxicity:

LD50 rat: 11 mg/kg

Acute inhalation toxicity:

LC50 rat: 7,500 mg/m³

Acute dermal toxicity

LD50 rabbit: 277 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

SAFETY DATA SHEET

Aquatic Toxicity: Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 44 mg/l - 96 h

Bio-accumulative potential: No Available Data

Mobility: No Available Data

SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14 - TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

Proper Shipping Name: Cyclohexylamine

Hazard Class: 8 (3)

UN Number: 2357

Packaging Group: 2

SECTION 15 - REGULATORY INFORMATION

US FEDERAL REGULATIONS

Comprehensive Environmental Response and Liability Act (CERCLA)

This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

SARA 302: Cyclohexylamine in this material is subject to the reporting requirements of SARA Title III, Section 302. The reportable quantity (RQ) for this material has not been established.

Toxic Substance Control Act (TSCA): All components of this product are listed on the TSCA inventory list.

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA Section 313 (40 CFR 372) Hazard Categories: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA.

Clean Air Act: None of the chemicals in this product are listed as Hazardous Substances under the CAA.

California Prop 65: This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 - OTHER INFORMATION

SAFETY DATA SHEET



MSDS Revision Date: November 2014

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 3

Flammability: 3

Reactivity: 0

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.