



511 Railroad Avenue  
Homer City, PA 15748  
(724) 915-8388  
www.chemstream.com

## Safety Data Sheet

# NA-3000

### 1. IDENTIFICATION

<b>Product name</b>	NA-3000
<b>Description</b>	Aqueous amine solution
<b>Product class</b>	Condensate Treatment
<b>Supplier address</b>	511 Railroad Avenue Homer City, PA 15748
<b>Telephone numbers</b>	(724) 915-8388
<u>Company Phone Number</u>	(724) 915-8388
<u>Emergency Telephone</u>	CHEMTREC (800) 424-9300

### 2. HAZARDS IDENTIFICATION

<b>Hazard classification</b>	Corrosive to Metals, Category 1 Flammable Liquids, Category 4 Acute Toxicity: Oral, Category 4 Skin Corrosion, Category 1 Serious Eye Damage, Category 1 Reproductive Toxicity, Category 2
<b>Signal word</b>	Danger
<b>Hazard statements</b>	May be corrosive to metals. Combustible liquid. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Suspected of damaging fertility or the unborn child.

#### Pictograms of related hazards



#### Precautionary statements

##### Prevention

- Keep only in original packaging.
- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
- Wear protective gloves, protective clothing, eye protection, and face protection.
- Wash skin thoroughly after handling.
- Do not eat, drink, or smoke when using this product.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.

Response

Absorb spillage to prevent material damage.

Wash contaminated clothing before reuse.

In case of fire: Use water spray, foam, dry chemical, or carbon dioxide for extinction.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately contact a POISON CENTER or health care provider.

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or emergency shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately contact a POISON CENTER or health care provider.

IF exposed or concerned: Get medical attention.

Storage

Store in a corrosive-resistant container or container with a resistant inner liner.

Store in a well-ventilated place.

Store locked up.

Disposal

Dispose of contents and container in accordance with local, state, and federal regulations.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	Weight %
Cyclohexylamine	108-91-8	10–20
Morpholine	110-91-8	10–20
Non-hazardous substances	Proprietary	>60

**4. FIRST-AID MEASURES**

<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention immediately.
<b>Skin contact</b>	Immediately remove all contaminated clothing. Rinse with copious amounts of water; use an emergency shower if available. Wash contaminated clothing before reuse.
<b>Ingestion</b>	If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.
<b>Inhalation</b>	If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.
<b>Note to health care provider</b>	Esophageal corrosion may contraindicate the use of gastric lavage and/or activated charcoal.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	Water spray, foam, dry chemical, carbon dioxide
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<b>Unsuitable extinguishing media</b>	No information available
<b>Protective equipment and precautions for firefighters</b>	Stay upwind of the fire. Full protective equipment including self-contained breathing apparatus should be used. Use water to cool closed containers. Contain water runoff if possible.
<b>Specific hazards</b>	Reaction with metals may evolve highly flammable hydrogen gas. Combustion may produce toxic gases.
<b>Hazardous combustion products</b>	Carbon oxides, nitrogen oxides

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Evacuate the area of all non-essential personnel. Do not touch spilled material without proper protective equipment. Ventilate the area and mitigate further release if it is safe to do so. Avoid contact with eyes.
<b>Methods for clean-up</b>	
<u>Small spills</u>	Contain spill and soak up with an inert absorbent material and place residues in a properly labeled container for disposal. Avoid discharge into sewer or surface water.
<u>Large spills</u>	Contain spill using trenches, diking, or absorption with an inert material (i.e. sand or earth). Reclaim spilled material into recovery or salvage drums or tank truck for proper disposal.

## 7. HANDLING AND STORAGE

<b>Advice on safe handling</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.
<b>Storage conditions</b>	Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.
<b>Suitable materials of construction</b>	Corrosion-resistant container; original container only is recommended.
<b>Unsuitable materials of construction</b>	Metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Eye/face protection</b>	Chemical splash goggles, face shield
<b>Skin protection</b>	Chemical-resistant gloves and body-covering clothing
<b>Respiratory protection</b>	Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).
<b>Engineering controls</b>	Adequate ventilation, eye-wash station, and emergency shower
<b>General hygiene considerations</b>	Do not eat, drink, or smoke while handling this product.

Chemical Name	OSHA PEL	ACGIH TLV
Cyclohexylamine	None established	None established
Morpholine	70 mg/m <sup>3</sup>	20 ppm
Non-hazardous substances	None established	None established

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>pH</b>	11.5-13.0
<b>Appearance</b>	Clear colorless to pale yellow liquid
<b>Odor</b>	Amine
<b>Odor Threshold</b>	No information available
<b>Melting/freezing point</b>	No information available
<b>Initial boiling point/boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Upper/lower flammability or explosive limits</b>	Cyclohexylamine: 9.4/1.5; Morpholine: 11.0/1.8
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	>1 [air = 1]
<b>VOC content</b>	No information available
<b>Specific gravity</b>	0.930-1.010; 8.09 lb/gal [bulk density]
<b>Solubility</b>	Complete
<b>Partition coefficient n-octanol/water</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity</b>	No information available

### 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions of storage and handling.
<b>Hazardous polymerization</b>	Polymerization will not occur.
<b>Conditions to avoid</b>	Heat, ignition sources, incompatibilities
<b>Incompatibilities</b>	Strong acids, oxidizers
<b>Hazardous decomposition products</b>	Reaction with acids may yield highly toxic nitrogen oxides.

## 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

## Acute toxicity

**Cyclohexylamine**

Parameter	Result
LD <sub>50</sub> , Oral (rat)	11 mg/kg
LD <sub>50</sub> , Dermal (rabbit)	277 mg/kg
LC <sub>50</sub> , Inhalation (rat)	7,500 mg/m <sup>3</sup>

**Morpholine**

Parameter	Result
LD <sub>50</sub> , Oral (rat)	1,450 mg/kg
LD <sub>50</sub> , Oral (mouse)	525 mg/kg
LC <sub>50</sub> , Inhalation (mouse)	1,320 mg/m <sup>3</sup> /2H
LC <sub>50</sub> , Inhalation (rat)	8,000 ppm
Sensitization, Dermal (guinea pig)	Not sensitizing

## Acute symptoms and effects

**Eye** Severe eye irritation with serious damage including, but not limited to, tissue destruction, corneal opacification, and temporary or permanent blindness.

**Skin** Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches. Onset of symptoms may be delayed relative to exposure.

**Ingestion** Gastrointestinal distress with or without nausea, vomiting, and diarrhea. May cause irritation or corrosion of the oral and esophageal mucosa.

**Inhalation** Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip. Inhalation may cause central nervous system depression with or without dizziness, drowsiness, fatigue, syncope, shortness of breath, and loss of consciousness.

**Reproductive effects** Exposure to cyclohexylamine has been implicated in damaging fertility or causing harm to unborn offspring in animal studies.

**Teratogenicity** No information available

**Mutagenicity** No information available

**Embryotoxicity** No information available

**Sensitization to product** May cause allergic reaction or delayed hypersensitivity in susceptible individuals.

**Synergistic products** No information available

**Carcinogenicity** Morpholine has been evaluated by the IARC and categorized as "not classifiable as to carcinogenicity in humans" (group 3).

**Chronic** No information available

**12. ECOLOGICAL INFORMATION****Aquatic toxicity****Cyclohexylamine**

Parameter	Result
96 hr LC <sub>50</sub> , Rainbow trout	44-90 mg/L
48 hr EC <sub>50</sub> , Daphnia magna	58-80 mg/L

**Morpholine**

Parameter	Result
96 hr LC <sub>50</sub> , Bluegill sunfish	>350 mg/L
48 hr EC <sub>50</sub> , Daphnia magna	100-119 mg/L

**Persistence** No information available

**Bioaccumulative potential** No information available

**Mobility** No information available

**13. DISPOSAL CONSIDERATIONS**

**Disposal** Dispose of in accordance with federal, state, and local regulations. Do not discharge into sewer or surface water.

**RCRA status** As sold, discarded product would be considered a RCRA hazardous waste based on the corrosive characteristics. The EPA hazardous waste number is D002.

**14. TRANSPORT INFORMATION****US Department of Transportation (DOT)**

<b>UN Number</b>	UN2735
<b>Proper shipping name</b>	Amines, liquid, corrosive, n.o.s. (contains cyclohexylamine, morpholine)
<b>Primary hazard class/division</b>	8
<b>Secondary hazard</b>	None
<b>Packing group</b>	III
<b>Label</b>	Corrosive

**15. REGULATORY INFORMATION**

**OSHA Hazard Communication Status** Corrosive to Metals, Category 1  
Flammable Liquids, Category 4  
Acute Toxicity: Oral, Category 4  
Skin Corrosion, Category 1  
Serious Eye Damage, Category 1  
Reproductive Toxicity, Category 2

**EPA Registration Number** Not applicable

**TSCA** The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

**CERCLA**EPA Hazardous Substances (40 CFR 302)

Chemical Name	Reportable Quantity (RQ)
Cyclohexylamine	None
Morpholine	None
Non-hazardous substances	None

SARA Title III (Sections 302, 311, 312, and 313)

## Section 302 Extremely Hazardous Substances (40 CFR 355)

Chemical Name	CAS#	RQ	TPQ
Cyclohexylamine	108-91-8	10,000 lb	10,000 lb

## Section 311 and 312 Health and Physical Hazards

Immediate	Delayed	Fire	Pressure	Reactivity
Yes	Yes	No	No	No

## Section 313 Toxic Chemicals (40 CFR 372)

Chemical Name	CAS Number	Percent by Weight
None		

**16. OTHER INFORMATION**

<b>HMIS Ratings</b>	Health—3; Flammability—2; Reactivity—0
<b>NFPA Ratings</b>	Health—3; Flammability—2; Reactivity—0
<b>HMIS/NFPA Rating Scale</b>	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
<b>SDS Issue Date</b>	8/31/2016
<b>SDS Review Date</b>	11/02/2023
<b>Version</b>	1

*The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.*