

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name** SL-3380

**Other means of identification**

**Product Code** 327  
**UN/ID No.** UN3267  
**Synonyms** None

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Steam/Condensate Return Line Treatment.  
**Uses advised against** No information available

**Manufacturer Address**

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

**Emergency telephone number**

Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 4

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

Harmful if swallowed  
 Causes severe skin burns and eye damage  
 Suspected of damaging fertility or the unborn child  
 May cause respiratory irritation. May cause drowsiness or dizziness  
 Combustible liquid



**Appearance** aqueous solution

**Physical state** liquid

**Odor** Amine

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Use only in well-ventilated areas  
 Keep away from flames and hot surfaces. - No smoking.

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
 Specific treatment (see Section 4 on this label)  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting  
 In case of fire: Use appropriate media to extinguish.

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)****Other Information**

• May be harmful in contact with skin  
 Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%	Trade Secret
Cyclohexylamine	108-91-8	20	
Morpholine	110-91-8	10	
2-Diethylaminoethanol	100-37-8	10	

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures**

**Eye contact** Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

**Skin Contact** Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.

**Inhalation** Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.

**Ingestion** Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

**Most important symptoms and effects, both acute and delayed****Symptoms**

Contact with the eyes or skin may cause severe irritation with possible burns with pain, excess blinking, redness, swelling, and tear production. May cause permanent eye damage. Toxic in contact with skin. Absorption through skin may be harmful. Causes severe skin irritation with pain, redness, and swelling. May cause burns with blister formation. Odor may cause nausea, vomiting, headache, and dizziness. Vapors are severely irritating to the eyes, nose and respiratory tract and may produce blurring of vision, eye injury, skin rashes, coughing, shortness of breath and breathing difficulties. Prolonged or repeated overexposure may result in lung damage. Ingestion may cause severe irritation and injury to the mouth, throat, and digestive tract. Ingestion may be fatal.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Water spray (fog). Carbon dioxide (CO<sub>2</sub>). Dry chemical.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical**

Dusts or fumes may form explosive mixtures in air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. Thermal decomposition can lead to release of irritating and toxic gases and vapors. If stock solution container breaks, the product should be handled with care as it is corrosive. Under fire conditions, toxic, corrosive fumes are emitted.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

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

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment. Remove all sources of ignition.

**Environmental precautions**

See Section 12 for additional ecological information. Prevent run-off into ground or surface waters or sewers.

**Methods for containment**

Stop leak if you can do it without risk. Completely contain spilled material with dikes or sand bags, etc.

**Methods for cleaning up**

Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored.

**Incompatible materials** Strong oxidizing agents. Strong acids. Halogens. Mixing with nitrites will form nitrosamines which are considered to be powerful cancer causing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cyclohexylamine 108-91-8	TWA: 10 ppm	(vacated) TWA: 10 ppm (vacated) TWA: 40 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 40 mg/m <sup>3</sup>
Morpholine 110-91-8	TWA: 20 ppm S*	TWA: 20 ppm TWA: 70 mg/m <sup>3</sup> (vacated) TWA: 20 ppm (vacated) TWA: 70 mg/m <sup>3</sup> (vacated) STEL: 30 ppm (vacated) STEL: 105 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 1400 ppm TWA: 20 ppm TWA: 70 mg/m <sup>3</sup> STEL: 30 ppm STEL: 105 mg/m <sup>3</sup>
2-Diethylaminoethanol 100-37-8	TWA: 2 ppm S*	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup> (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 100 ppm TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>

**Appropriate engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility.

**Skin and body protection** If contact is anticipated, wear protective clothing appropriate to use conditions.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Amine
<b>Appearance</b>	aqueous solution	<b>Odor threshold</b>	No information available
<b>Color</b>	clear Pale amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	11.6	1% Solution
<b>Melting point/freezing point</b>	No information available	
<b>Boiling point / boiling range</b>	No information available	
<b>Flash point</b>	185°F	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Specific Gravity</b>	0.975	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY****Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

Strong oxidizing agents. Strong acids. Halogens. Mixing with nitrites will form nitrosamines which are considered to be powerful cancer causing agents.

**Hazardous Decomposition Products**

Nitrogen oxides (NOx). Carbon monoxide. Carbon dioxide (CO2). Ammonia.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	No data available
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<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes. Risk of serious damage to eyes.
<b>Skin Contact</b>	Contact causes severe skin irritation and possible burns.
<b>Ingestion</b>	Can burn mouth, throat, and stomach.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Cyclohexylamine 108-91-8	= 11 mg/kg ( Rat )	-	-
Morpholine 110-91-8	= 1050 mg/kg ( Rat )	= 310 mg/kg ( Rabbit )	= 8000 ppm ( Rat ) 8 h
2-Diethylaminoethanol 100-37-8	= 1300 mg/kg ( Rat )	= 1260 µL/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Cyclohexylamine 108-91-8	-	Group 3	-	-
Morpholine 110-91-8	-	Group 3	-	-

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Cyclohexylamine 108-91-8	20: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 20: 96 h Pseudokirchneriella subcapitata mg/L EC50	44 - 90: 96 h Oncorhynchus mykiss mg/L LC50 470: 96 h Brachydanio rerio mg/L LC50 static	49: 24 h Daphnia magna mg/L EC50
Morpholine 110-91-8	28: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	350: 96 h Lepomis macrochirus mg/L LC50 static 375 - 460: 96 h Oncorhynchus mykiss mg/L LC50 1000: 96 h Brachydanio rerio mg/L LC50 static	100: 24 h Daphnia magna mg/L EC50
2-Diethylaminoethanol 100-37-8	30: 72 h Desmodesmus subspicatus mg/L EC50	1660 - 1920: 96 h Pimephales promelas mg/L LC50 flow-through 100 - 220: 96 h Leuciscus idus mg/L LC50 static	83.6: 48 h Daphnia magna Straus mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Cyclohexylamine 108-91-8	1.2
Morpholine 110-91-8	-2.55
2-Diethylaminoethanol 100-37-8	0.21

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**14. TRANSPORT INFORMATION****DOT****UN/ID No.**

Regulated

UN3267

**Proper shipping name**

Corrosive liquid, basic, organic, N.O.S.

**Hazardous ingredients**

(Cyclohexylamine, Diethylaminoethanol)

**Hazard Class**

8

**Packing Group**

III

**15. REGULATORY INFORMATION****International Inventories****TSCA**

Complies

**DSL/NDSL**

Complies

**EINECS/ELINCS**

Complies

**ENCS**

Does not comply

**IECSC**

Complies

**KECL**

Complies

**PICCS**

Complies

**AICS**

Complies

**Legend:****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances



**End of Safety Data Sheet**