

Product SL557  
 Revision Date 01/05/2015  
 Revision 1



## Safety Data Sheet

### SECTION 1: IDENTIFICATION

<b>Product Name</b>	<b>SL557</b>
<b>Identifier Uses</b>	Condensate Treatment.
<b>Supplier</b>	Cannon Water Technology Inc. 233 Technology Way, Suite 9 Rocklin, California 95765 Tel: 916-315-2691
<b>Contact Person</b>	<a href="mailto:csd@cannonwater.com">csd@cannonwater.com</a>
<b>Emergency Telephone</b>	24-HOUR EMERGENCY TELEPHONE: CHEMTEL: 1-800-255-3924 CONTRACT # MIS0001465

### SECTION 2: HAZARDS IDENTIFICATION

<b>Appearance</b>	Clear, colorless to yellow liquid.
<b>Color</b>	Colorless
<b>Odor</b>	Ammonia

**Pictogram(s)**



<b>Signal Word</b>	Danger
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<b>Hazard Statements</b>	H226 Flammable liquid and vapor. H302 Harmful if swallowed. H312 Harmful in contact with skin H314 Causes severe skin burns and eye damage H361f Suspected of damaging fertility. H335 May cause respiratory irritation.
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<b>Precautionary Statements</b>	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. 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. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
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<b>Contains</b>	Cyclohexylamine Morpholine 2-diethylaminoethanol N,N-diethylethanolamine
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<b>GHS Classification</b>	
<b>Physical and Chemical Hazards</b>	Flam. Liq 3- H226
<b>Human Health</b>	Acute Tox 4 - H302, Acute Tox 4 - H312, Skin Corr. 1B - H314, Repr. 2 - H361f, STOT SE 3 - H335

<b>Environment</b>	Not classified
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<b>OSHA Regulatory Status</b>	This Product is Hazardous under the OSHA Hazard Communication Standard.
<b>Inhalation</b>	Inhalation of high concentrations of vapors may cause irritation of the respiratory tract with sore throat, coughing, shortness of breath, possible chest pain.

<b>Ingestion</b>	Do not ingest. Exposure to liquid product may cause moderate to severe irritation to inner
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<b>Skin contact</b>	linings of mouth, esophagus and gastrointestinal tract, and possible burns. Symptoms of exposure may include nausea, vomiting, diarrhea, dizziness, drowsiness, thirst, faintness, weakness or circulatory collapse. The product is moderately toxic.
<b>Eye contact</b>	Corrosive! Can cause redness, pain, and severe skin burns.
<b>Routes of Exposure</b>	Extreme irritation of eyes and mucous membranes, including burning and tearing. Causes serious eye damage. Causes severe eye burns.
	No Information available.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

#### Composition Comments

Confidential business information has been removed without affecting the overall safety information on the safety data sheet.

### SECTION 4: FIRST AID MEASURES

#### Description of first aid measures

##### General Information

<b>Inhalation</b>	If this product is inhaled, move the exposed person to fresh air promptly. Seek medical attention if symptoms persist. Give artificial respiration if the exposed person is not breathing.
<b>Ingestion</b>	If the product is ingested, seek medical attention immediately. Do NOT give the exposed person anything to drink. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
<b>Skin contact</b>	If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes. If the product penetrates the clothing, promptly remove the contaminated clothing or shoes, and flush the affected area as described. Seek medical attention if irritation persists.
<b>Eye contact</b>	If the product contacts the eyes, immediately flush eyes with plenty of clean running water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Remove contact lenses if worn. Seek medical attention if irritation persists.

#### Most important symptoms and effects, both acute and delayed

##### General Information

<b>Inhalation</b>	Inhalation of high concentrations of vapors may cause irritation of the respiratory tract with sore throat, coughing, shortness of breath, possible chest pain.
<b>Ingestion</b>	Do not ingest. Exposure to liquid product may cause moderate to severe irritation to inner linings of mouth, esophagus and gastrointestinal tract, and possible burns. Symptoms of exposure may include nausea, vomiting, diarrhea, dizziness, drowsiness, thirst, faintness, weakness or circulatory collapse. The product is moderately toxic.
<b>Skin contact</b>	Corrosive! Can cause redness, pain, and severe skin burns.
<b>Eye contact</b>	Extreme irritation of eyes and mucous membranes, including burning and tearing. Causes serious eye damage. Causes severe eye burns.
<b>Routes of Exposure</b>	No Information available.

#### Most important symptoms and effects, both acute and delayed

##### Notes to the Physician

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

### SECTION 5: FIREFIGHTING MEASURES

<b>Auto Ignition Temperature (°C)</b>	No Information available
<b>Flammability Limit - Lower (%)</b>	No Information available
<b>Flammability Limit - Upper (%)</b>	No Information available
<b>Flash point</b>	No Information available
<b>Extinguishing Media</b>	Use fire-extinguishing media appropriate for surrounding materials. Water, foam, dry Chemical or carbon dioxide.
<b>Hazardous combustion products</b>	Combustion may lead to the release of oxides of nitrogen, ammonia and carbon monoxide.
<b>Unusual Fire &amp; Explosion Hazards</b>	Irritating vapors may be emitted during a fire.
<b>Special Fire Fighting Procedures</b>	Use water to cool containers exposed to a fire.

**Protective equipment for fire- fighters** Wear full protective equipment, including butyl rubber boots, gloves, body suit and self-contained breathing apparatus.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	For personal protection, see section 8. Eliminate all sources of ignition. In case of spills, beware of slippery floors and surfaces.
<b>Environmental Precautions</b>	Keep out of drains, municipal sewers, open bodies of water and water course.
<b>Spill Clean Up Methods</b>	Restrict non-essential personnel from the area. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer. Place into chemical waste container for disposal according to local, state or federal regulations. Neutralize residue with lime or soda ash and flush spill area. <b>DO NOT TOUCH SPILLED MATERIAL!</b> Wash thoroughly after dealing with a spillage.

## SECTION 7: HANDLING AND STORAGE

<b>Handling</b>	Use proper personal protection when handling. Provide good ventilation. Avoid contact with eyes and clothing. Do not use contact lenses. Avoid inhalation of vapors and mists. Avoid prolonged or repeated contact. Do NOT ingest. Wash thoroughly after handling. Rinse container before disposal. Eliminate all sources of ignition.
<b>Usage Description</b>	Store closed containers in a cool, dry, well-ventilated area away from incompatible materials. Store in an area designated for flammable liquids. This product is stable under normal conditions of handling and storage.
<b>Storage Precautions</b>	Store closed containers in a cool, dry, well-ventilated area away from incompatible materials. Store closed containers in a cool, dry, well-ventilated area away from incompatible materials. This product is stable under normal conditions of handling and storage. Avoid cold temperatures. The recommended storage temperature is above 32°F, preferably at room temperature (70°F). Keep away from oxides of nitrogen, ammonia and carbon monoxide.
<b>Specific End Use(s)</b>	The identified uses are in section 1 of this Safety Data Sheet.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Protective Equipment



Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
morpholine	OSHA	20 ppm	70 mg/m <sup>3</sup>			
2-diethylaminoethanol N,N- diethylethanolamine	OSHA	10 ppm	50 mg/m <sup>3</sup>			

<b>Process Conditions</b>	Provide eyewash, quick drench.
<b>Engineering Measures</b>	Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. General mechanical ventilation is recommended for enclosed areas.
<b>Respiratory Equipment</b>	In the case of inadequate ventilation use a NIOSH approved organic vapor respirator to reduce potential for inhalation exposure. When using respirator cartridges, they must be changed frequently to assure breakthrough exposure does not occur.
<b>Hand Protection</b>	Wear approved safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).
<b>Eye Protection</b>	To avoid contact with eyes, use safety glasses or chemical splash goggles. Face shield is recommended. Eye wash station should be available in the work area.
<b>Hygiene Measures</b>	<b>DO NOT SMOKE IN WORK AREA!</b> Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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**9.1 Information on Basic Physical and Chemical Properties**

<b>Appearance</b>	Clear, colorless to yellow liquid.
<b>Color</b>	Colorless
<b>Odor</b>	Ammonia
<b>Odor Threshold - Lower</b>	No Information available.
<b>Odor Threshold - Upper</b>	No Information available.
<b>pH-Value, Conc. Solution</b>	12.8
<b>Melting point</b>	25 °F
<b>Initial boiling point and boiling range</b>	210 °F
<b>Flash point</b>	No Information available.
<b>Evaporation rate</b>	No Information available.
<b>Flammability State</b>	No Information available.
<b>Flammability Limit - Lower (%)</b>	No Information available.
<b>Flammability Limit - Upper (%)</b>	No Information available.
<b>Vapor pressure</b>	6.9 mm Hg
<b>Vapor Density (air=1)</b>	4
<b>Relative density</b>	0.98 @ 68 °F
<b>Bulk Density</b>	No Information available.
<b>Solubility</b>	Completely soluble in water.
<b>Decomposition temperature</b>	No Information available.
<b>Partition coefficient; n-octanol/water</b>	No Information available.
<b>Auto Ignition Temperature (°C)</b>	No Information available.
<b>Viscosity</b>	No Information available.
<b>Explosive Properties</b>	No information available.
<b>Oxidizing properties</b>	No Information available.
<b>Molecular Weight</b>	No Information available.
<b>Volatile Organic Compound</b>	No Information available.

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**SECTION 10: STABILITY AND REACTIVITY**


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<b>Reactivity</b>	Reaction with: Strong oxidizing agents, strong acids, copper, aluminum and zinc.
<b>Stability</b>	This product is stable at ambient temperatures and atmospheric pressures.
<b>Hazardous Polymerization</b>	Hazardous polymerization is not expected to occur under normal temperatures and pressures.
<b>Hazardous Decomposition Products</b>	Hazardous decomposition can result in the release of oxides of ammonia, nitrogen and carbon monoxide.
<b>Conditions to Avoid</b>	Avoid exposing to heat and contact with strong oxidizing substances.
<b>Materials to Avoid</b>	Avoid contact with Strong oxidizing agents, strong acids, copper, aluminum and zinc. Do not mix with other chemicals unless listed on directions. Keep away from combustible materials.

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Toxicological Information</b>	No Information available. High oral doses have resulted in embryo and fetal toxicity and cyclohexylamine has caused fertility problems in mice, probably as a secondary effect from reduced body weights in the mothers.
<b>Acute Toxicity (Oral LD50)</b>	>694 mg/kg Rat
<b>Acute Toxicity (Dermal LD50)</b>	>293 mg/kg Rabbit
<b>Acute Toxicity (Inhalation LD50)</b>	No Information available.
<b>Skin Corrosion/Irritation</b>	No Information available.
<b>Respiratory Sensitisation</b>	No Information available.
<b>Skin Sensitization</b>	No Information available.
<b>Reproductive Toxicity:</b>	No Information available.
<b>Germ Cell</b>	
<b>Mutagenicity: Geno</b>	
<b>toxicity - In Vitro Geno</b>	
<b>toxicity - In Vivo</b>	
<b>Carcinogenicity:</b>	
<b>Carcinogenicity</b>	No Information available.
<b>NTP - Carcinogenicity</b>	The product and its components are not listed.
<b>OSHA - Carcinogenicity</b>	The product and its components are not listed.
<b>IARC Carcinogenicity</b>	The product and its components are not listed.
<b>Specific Target Organ Toxicity - Single Exposure:</b>	
<b>STOT - Single Exposure</b>	No Information available.
<b>Specific Target Organ Toxicity - Repeated Exposure:</b>	
<b>STOT - Repeated Exposure</b>	No Information available.

Name	LD50 Oral	LD50 Dermal	LD50 Inhalation
cyclohexylamine	432. mg/kg Rat	275mg/k Rat	>700.00mg/m <sup>3</sup> Rat 4 Hours
morpholine	1050 mg/kg Rat	1210 mg/kg Rabbit	>22.20mg/l (vapors) Rat 1 Hours
2-diethylaminoethanol N,N-diethylethanolamine	2460 mg/kg Rat	1260 mg/kg Rabbit	

**SECTION 12: ECOLOGICAL INFORMATION**

<b>Eco toxicity</b>	No Information available.
<b>Acute Toxicity - Fish</b>	LC50 96 Hours >2000 ppm Onchorhynchus mykiss (Rainbow Trout)
<b>Acute Toxicity - Aquatic Invertebrates</b>	LC50 48 Hours >225 ppm Daphnia magna
<b>Acute Toxicity - Aquatic Plants</b>	EC50 72 Hours > 1900
<b>Degradability</b>	No information available.
<b>Bio accumulative Potential</b>	
<b>Mobility</b>	No Information available.
<b>Results of PBT and vPvB Assessment</b>	The product does not contain any PBT or vPvB substances.
<b>Other Adverse Effects</b>	No Information available.


Name	Acute Toxicity (Fish)	Acute Toxicity (Aquatic)	Acute Toxicity (Aquatic Plants)
cyclohexylamine	LC50 = 19 mg/l	EC50 48 Hours = 36.30mg/l Daphnia magna	EC50 72 Hours = 29.30mg/l Selenastrum Capricornutum
morpholine	LC50 96 Hours 400 mg/l		

**SECTION 13: DISPOSAL CONSIDERATIONS**

<b>Waste Management</b>	When handling waste, consideration should be made to the safety precautions applying to Handling of the product.
<b>Disposal Methods</b>	Dispose of waste and residues in accordance with local authority requirements. Do NOT Dump into any sewers, on the ground or into any body of water. Rinse containers before

disposal. Since emptied containers contain product residue, follow label warnings even after container is emptied.

## SECTION 14: TRANSPORT INFORMATION

<b>UN No. (DOT/TDG)</b>	2920 - CORROSIVE LIQUID, FLAMMABLE, (cyclohexylamine, diethylaminoethanol)
<b>UN No. (IMDG)</b>	2920 - CORROSIVE LIQUID, FLAMMABLE, (cyclohexylamine, diethylaminoethanol)
<b>UN No. (ICAO)</b>	2920 - Corrosive liquid, flammable (cyclohexylamine, diethylaminoethanol)
<b>DOR Proper Shipping Name</b>	CORROSIVE LIQUID, FLAMMABLE, (cyclohexylamine, diethylaminoethanol)
<b>TDG Proper Shipping Name</b>	CORROSIVE LIQUID, FLAMMABLE, (cyclohexylamine, diethylaminoethanol)
<b>DOT Hazard Class</b>	8.0
<b>DOT Hazard Label</b>	Class 8 - Corrosive
<b>TDG Class</b>	8.0
<b>TDG Label(s)</b>	8.0
<b>IMDG Class</b>	8
<b>ICAO Class</b>	8
<b>Transport Labels</b>	
<b>DOT Pack Group</b>	II
<b>IMDG Pack Group</b>	II
<b>Air Pack Group</b>	II
<b>EMS</b>	F-E, S-C
<b>Environmentally Hazardous Substance/Marine Pollutant</b>	No

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

#### **SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

The Following ingredients are listed cyclohexylamine

#### **CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

The Following ingredients are listed

#### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

The Following ingredients are listed cyclohexylamine

#### **SARA 313 Emission Reporting**

The Following ingredients are listed

#### **CAA Accidental Release Prevention**

The Following ingredients are listed

#### **OSHA Highly Hazardous Chemicals**

The Following ingredients are listed

### US State Regulations

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

The Following ingredients are listed

#### **California Air Toxics "Hot Spots" (A-I)**

The Following ingredients are listed

**California Air Toxics "Hot Spots" (A-Ii)**

The Following ingredients are listed

**Massachusetts "Right To Know" List**

The Following ingredients are listed

cyclohexylamine  
 morpholine  
 2-diethylaminoethanol N,N-diethylethanolamine

**Rhode Island "Right To Know" List**

The Following ingredients are listed

cyclohexylamine

**Minnesota "Right To Know" List**

The Following ingredients are listed

cyclohexylamine  
 morpholine  
 2-diethylaminoethanol N,N-diethylethanolamine

**New Jersey "Right To Know" List**

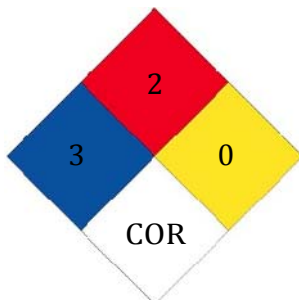
The Following ingredients are listed

cyclohexylamine  
 morpholine  
 2-diethylaminoethanol N,N-diethylethanolamine

**Pennsylvania "Right To Know" List**

The Following ingredients are listed

cyclohexylamine  
 morpholine  
 2-diethylaminoethanol N,N-diethylethanolamine

**SECTION 16: OTHER INFORMATION****NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)****HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

<b>HEALTH</b>	3
<b>FLAMMABILITY</b>	2
<b>PHYSICAL HAZARD</b>	0
<b>PERSONAL PROTECTION</b>	H

**Revision Comments**

Revision Date 01/05/2015.

Revision I

**Disclaimer**

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