

**STEAMPRO 19****1 PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** STEAMPRO 19  
**Common Name:** MIXTURE  
**SDS Number:** 0702  
**Revision Date:** 4/24/2015  
**Version:** 1  
**Internal ID:** 310C  
**Product Use:** Condensate Treatment  
**Supplier Details:** U. S. Water Services  
12270 43rd St. NE  
St. Michael, MN 55376

**Contact:** Non-emergency #: 866-663-7632  
**Email:** SDS@uswaterservices.com  
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**EMERGENCY RESPONSE: (ChemTel)**  
**US & Canada: 800-255-3924**  
**International: +01-813-248-0585**

**2 HAZARDS IDENTIFICATION****Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):**

Health, Acute toxicity, 4 Dermal  
Health, Acute toxicity, 3 Oral  
Health, Specific target organ toxicity - Repeated exposure, 2  
Health, Respiratory or skin sensitization, 1 Skin  
Health, Skin corrosion/irritation, 1  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Acute toxicity, 4 Inhalation  
Physical, Flammable Solids, 2

**GHS Label elements, including precautionary statements**

**GHS Signal Word:** **DANGER**

**GHS Hazard Pictograms:****GHS Hazard Statements:**

H312 - Harmful in contact with skin  
H301 - Toxic if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure  
H317 - May cause an allergic skin reaction  
H314 - Causes severe skin burns and eye damage

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H336 - May cause drowsiness or dizziness

H332 - Harmful if inhaled

H228 - Flammable solid

**GHS Precautionary Statements:**

P281 - Use personal protective equipment as required.

P302+352 - IF ON SKIN: Wash with soap and water.

P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P304+341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P313 - Get medical advice/attention.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

**3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

Cas#	%	Chemical Name
110-91-8	10-30%	Morpholine
108-91-8	10-30%	Cyclohexylamine
3710-84-7	10-30%	Ethanamine, N-ethyl-N-hydroxy-

**4 FIRST AID MEASURES**

- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately and keep in position comfortable for breathing. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
- Skin Contact:** Get medical attention immediately. Wash with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. Destroy contaminated shoes.
- Eye Contact:** Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.
- Ingestion:** Get medical attention immediately. Do NOT induce vomiting. If victim is conscious and alert, wash out mouth with water then give water. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed. Chemical burns must be treated promptly by a physician.

**Most important symptoms & effects (acute & delayed):** No data available

**Indication of need for immediate medical attention:** No data available

**Special treatment needs:** No data available

**STEAMPRO 19****5 FIRE FIGHTING MEASURES**

**Flammability:** Solid product. Product will melt and combustion may occur when exposed to fire.  
**Flash Point:** None  
**Burning Rate:** Not applicable  
**Autoignition Temp:** Not determined  
**LEL:** Not applicable  
**UEL:** Not applicable

**Extinguishing Media:**

**Suitable:** Water fog, alcohol foam, CO<sub>2</sub>, dry chemical

**Unsuitable:** Straight stream of water

**Hazardous combustion products:** Carbon oxides, nitrogen oxides, and other potentially hazardous or toxic substances.

**Unusual Fire or Explosion Hazards:** This material may produce a floating fire hazard in extreme fire conditions. Releases combustible amine vapors when heated to boiling. Closed containers may rupture due to pressure build up when exposed to extreme heat.

**Special protective equipment/precautions:** Wear self-contained breathing apparatus

**6 ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective equipment, emergency procedures:** Avoid contact with the material. See section 8 of SDS for PPE recommendations

**Environmental Precautions:** Keep runoff from entering drains or waterways

**Spill/Leak procedures:** Contain spill or leak. Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal.

**Regulatory Requirements:** Dispose of recovered material in accordance with all applicable state and federal regulations.

**7 HANDLING AND STORAGE**

**Handling Precautions:** Avoid contact with eyes, skin, or clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only!

**Storage Requirements:** Store in closed containers away from temperature extremes and incompatible materials. Protect from freezing. Store in properly labeled containers in accordance with all local, state and federal guidelines.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** Provide local exhaust ventilation as needed to control misting.

**Personal Protective Equipment:** HMIS PP, C | Safety Glasses, Gloves, Apron

Respiratory protection: If needed use MSHA/NIOSH approved respirator. Seek professional advice prior to respirator selection and use. Follow all requirements of

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OSHA respirator regulations (29 CFR 1910.134)

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.

PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

Exposure Limits:	Cyclohexylamine	Morpholine
OSHA (TWA)/PEL):	NE	20ppm; 70 mg/m <sup>3</sup>
ACGIH (TWA):	10ppm	20ppm skin-significant contribution through cutaneous route
NIOSH (TWA):	10ppm; 70 mg/m <sup>3</sup>	20ppm; 70 mg/m <sup>3</sup> ; 1400ppm IDLH

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	White	<b>Odor:</b>	Ammonical
<b>Physical State:</b>	Solid	<b>Solubility:</b>	Complete in water (dissolves slow
<b>Odor Threshold:</b>	Not determined	<b>Freezing/Melting Pt.:</b>	Not determined
<b>Spec Grav./Density:</b>	Not determined	<b>Flash Point:</b>	None
<b>Viscosity:</b>	Not determined	<b>Vapor Density:</b>	Not determined
<b>Boiling Point:</b>	Not determined	<b>Auto-Ignition Temp:</b>	Not determined
<b>Partition Coefficient:</b>	Not determined	<b>UFL/LFL:</b>	Not determined
<b>Vapor Pressure:</b>	Not determined		
<b>pH:</b>	~11 (4% soln.)		
<b>Evap. Rate:</b>	Not determined		
<b>Decomp Temp:</b>	Not determined		

**10 STABILITY AND REACTIVITY**

<b>Stability:</b>	Product is stable under normal storage and use conditions.
<b>Conditions to Avoid:</b>	Keep container closed when not in use. Protect from extreme temperatures and incompatible materials.
<b>Materials to Avoid:</b>	Reactive or incompatible with the following materials: oxidizing materials, nitrites, acids, ketones, phenol, glycols, halogenated agents, hypochlorite.
<b>Hazardous Decomposition:</b>	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, amines.
<b>Hazardous Polymerization:</b>	Will not occur.

**STEAMPRO 19****11 TOXICOLOGICAL INFORMATION****Acute Toxicity:**

Morpholine

Oral LD<sub>50</sub> (rat) = 1900 mg/kgDermal LD<sub>50</sub> (rabbit) = 500 mg/kgInhalation LC<sub>50</sub> (rat) = 8 mg/m<sup>3</sup> (4hr)Cyclohexylamine: LD<sub>50</sub>/LC<sub>50</sub>

Draize test, rabbit, eye: 50 ug/24H Severe;

Draize test, rabbit, eye: 100 uL/5M Severe;

Draize test, rabbit, skin: 2 mg/24H Severe;

Draize test, rabbit, skin: 500 uL Severe;

Inhalation, mouse: LC<sub>50</sub> = 1070 mg/m<sup>3</sup>;Inhalation, rat: LC<sub>50</sub> = 7500 mg/m<sup>3</sup>;Oral, mouse: LD<sub>50</sub> = 224 mg/kg;Oral, rat: LD<sub>50</sub> = 11 mg/kg;Skin, rabbit: LD<sub>50</sub> = 320 uL/kg;

Diethylhydroxylamine

LD<sub>50</sub>/oral/rat = 2190 mg/kgLD<sub>50</sub>/dermal/rabbit = 1300 mg/kgLC<sub>50</sub>/inhalation/4h/rat = 11.4 mg/l

Eye irritation - Irritating to eyes

Skin irritation - Irritating to skin

**Specific target organ toxicity (single exposure):** No data available**Specific target organ toxicity (repeated exposure):** No data available**Aspiration hazard:** No data available**Carcinogenicity:** Under certain conditions nitrosamines can form; which are carcinogenic in animal studies.**Germ Cell Mutagenicity:** No mutagenic effects are known for the components of this product**Teratogenicity:** Large doses of cyclohexylamine were not teratogenic in mice, rats, rabbits, or monkeys, although growth impairment of the fetus was observed in association with maternal toxicity.**12 ECOLOGICAL INFORMATION****Aquatic Toxicity** No data available**Elimination** (persistence & degradability): No data available**Bioaccumulative potential:** No data available**Mobility in soil:** No data available**Other adverse effects:** No data available

**STEAMPRO 19****13 DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

**14 TRANSPORT INFORMATION**

UN1759, Corrosive solids, n.o.s., 8, PGII, (Cyclohexylamine, Morpholine)

DOT Transportation data (49 CFR 172.101)

**15 REGULATORY INFORMATION**

Component (CAS#) [%] - CODES

Morpholine (110-91-8) [10-30%] MASS, OSHAWAC, PA, TSCA, TXAIR

Cyclohexylamine (108-91-8) [10-30%] EHS302, HAP, MASS, NJHS, OSHAWAC, PA, TSCA, TXAIR

Ethanamine, N-ethyl-N-hydroxy- (3710-84-7) [10-30%] TSCA

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List

OSHA = OSHA workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

EHS302 = Extremely Hazardous Substance

HAP = Hazardous Air Pollutants

NJHS = NJ Right-to-Know Hazardous Substances

**EPA / CERCLA / SARA TITLE III:**

**CERCLA List:** This product does not contain any CERCLA listed hazardous substances.

**Toxic Chemical List (SARA 313):** This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

**SARA 312:** Acute, Chronic,

**RCRA:** No data available

**TSCA:** All components of this product are listed (or are not required to be listed) in the TSCA inventory

**California Proposition 65:** This product contains a chemical known to the state of California to cause cancer

**STEAMPRO 19****16****OTHER INFORMATION**

HMIS III: Health = 3, Fire = 1, Physical Hazard = 0

HMIS PPE: C - Safety Glasses, Gloves, Apron

HMIS		
HEALTH	<input type="checkbox"/>	3
FLAMMABILITY	<input type="checkbox"/>	1
PHYSICAL HAZARD	<input type="checkbox"/>	0
PERSONAL PROTECTION	<input type="checkbox"/>	C

**Author:** U.S. Water Services**Revision Notes:** Updated to GHS format**Disclaimer:**

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