

**Safety Data Sheet****Chemstream MC-933****1. IDENTIFICATION**

Product name	Chemstream MC-933
Description	Proprietary aqueous solution
Product class	Reverse Osmosis
Supplier address	166 Commerce Dr. Stoystown, PA 15563
Telephone numbers	
<u>Company Phone Number</u>	(814) 629-7118
<u>Emergency Telephone</u>	CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification	Corrosive to Metals, Category 1 Skin Irritation, Category 2 Serious Eye Damage, Category 1 Acute Toxicity: Inhalation, Category 4 Carcinogenicity, Category 2
Signal word	Danger
Hazard statements	May be corrosive to metals. Causes skin irritation. Causes serious eye damage. Harmful if inhaled. Suspected of causing cancer.

Pictograms of related hazards**Precautionary statements**Prevention

- Keep only in original packaging.
- Wash skin thoroughly after handling.
- Wear protective gloves, protective clothing, eye protection, and face protection.
- Avoid breathing fumes, mist, vapors, or spray.
- Use only outdoors or in a well-ventilated area.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.

Response

- Absorb spillage to prevent material damage.
- IF ON SKIN: Wash with soap and water.

If skin irritation occurs: Get medical attention.
 Take off contaminated clothing and wash it before reuse.
 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF exposed or concerned: Get medical attention.

Storage

Store in a corrosive-resistant container or container with a resistant inner liner.
 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 %
Tetrasodium ethylenediaminetetraacetate (Na ₄ EDTA)	64-02-8	30-40
Sodium hydroxyacetate	2836-32-0	3
Sodium hydroxide	1310-73-2	<2
Nitrilotriacetate, trisodium salt (NTA)	5064-31-3	1
Non-hazardous substances	Proprietary	>50

4. FIRST-AID MEASURES

Eye contact 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.

Skin contact Immediately remove all contaminated clothing. Rinse with copious amounts of water; use an emergency shower if available. Wash contaminated clothing before reuse.

Ingestion 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.

Inhalation If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.

Note to health care provider Esophageal corrosion may contraindicate the use of gastric lavage and/or activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water spray, foam, dry chemical, carbon dioxide

Unsuitable extinguishing media No information available

Protective equipment and precautions for firefighters 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.

Specific hazards Reaction with metals may produce highly flammable hydrogen gas.

Hazardous combustion products Carbon oxides, nitrogen oxides, corrosive vapor

6. ACCIDENTAL RELEASE MEASURES

Personal precautions 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.

Methods for clean-up

Small spills 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.

Large spills 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

Advice on safe handling Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.

Storage conditions Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Suitable materials of construction Corrosion-resistant container; original container only is recommended.

Unsuitable materials of construction Metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection Chemical splash goggles, face shield

Skin protection Chemical-resistant gloves and body-covering clothing

Respiratory protection Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

Engineering controls Adequate ventilation, eye-wash station, and emergency shower

General hygiene considerations Do not eat, drink, or smoke while handling this product.

Chemical Name	OSHA PEL	ACGIH TLV
Tetrasodium ethylenediaminetetraacetate (Na ₄ EDTA)	None established	None established
Sodium hydroxyacetate	None established	None established
Sodium hydroxide	Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³
Nitriлотriacetate, trisodium salt (NTA)	None established	None established
Non-hazardous substances	None established	None established

9. PHYSICAL AND CHEMICAL PROPERTIES

pH	11.0-11.8 (1% solution)
Appearance	Colorless to yellow liquid
Odor	Mild
Odor Threshold	No information available
Melting/freezing point	-13°F (-25°C)
Initial boiling point/boiling range	223°F (106°C)
Flash point	No information available
Evaporation rate	<0.8 (estimated) [butyl acetate = 1]
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapor pressure	No information available
Vapor density	No information available
VOC content	No information available
Specific gravity	1.310 @ 77°F (25°C)
Solubility	Complete
Partition coefficient n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	20 cSt @ 68°F (20°C)

10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of storage and handling.
Hazardous polymerization	Polymerization will not occur.
Conditions to avoid	Extreme temperatures, incompatibilities
Incompatibilities	Strong acids, oxidizers
Hazardous decomposition products	No known non-thermal decomposition hazards.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure Skin, eyes, ingestion

Acute toxicity

Tetrasodium ethylenediaminetetraacetate (Na₄EDTA)

Parameter	Result
LD ₅₀ , Oral (rat)	>2,000 mg/kg
LC ₅₀ , Inhalation (rat)	Not toxic
Draize, Skin (rabbit)	Mild irritation
Draize, Eye (rabbit)	Serious eye damage
LD ₅₀ , Oral (rat)	1,700-1,913 mg/kg

Sodium hydroxide

Parameter	Result
LD ₅₀ , Oral (rat)	140-340 mg/kg
LD ₅₀ , Dermal (rabbit)	1,350 mg/kg

Nitrilotriacetate, trisodium salt (NTA)

Parameter	Result
LD ₅₀ , Oral (rat)	1,100 mg/kg
LD ₅₀ , Oral (mouse)	681 mg/kg

Acute symptoms and effects

Eye	Eye irritation with or without pain, burning, itching, redness, discharge, and serious eye damage.
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.
Ingestion	Gastrointestinal distress with or without nausea, vomiting, and diarrhea. May cause corrosion of the oral and esophageal mucosa. Tissue destruction may lead to gastric perforation and fatal chemical peritonitis. Ingestion may cause coincidental swelling of or damage to the larynx causing life-threatening airway compromise.
Inhalation	Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip. Aspiration of liquid or vomit may cause severe respiratory distress, airway corrosion, and acute lung damage.
Reproductive effects	No information available
Teratogenicity	No information available
Mutagenicity	No information available
Embryotoxicity	No information available
Sensitization to product	No information available
Synergistic products	No information available
Carcinogenicity	Nitrilotriacetic acid and its salts are listed as suspected carcinogens by NTP (group 2) and IARC (group 2B).
Chronic	No information available

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Sodium hydroxide

Parameter	Result
96 hr LC ₅₀ , Bluegill sunfish	43 mg/L
96 hr LC ₅₀ , Rainbow trout	260 mg/L

Nitritotriacetate, trisodium salt (NTA)

Parameter	Result
96 hr LC ₅₀ , Bluegill sunfish	198 mg/L
96 hr LC ₅₀ , Fathead minnow	127 mg/L
96 hr LC ₅₀ , Rainbow trout	98 mg/L
48 hr EC ₅₀ , Daphnia magna	100 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.

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)

UN Number UN3267

Proper shipping name Corrosive liquid, basic, organic, n.o.s. (contains tetrasodium ethylenediaminetetraacetate, sodium hydroxide)

Primary hazard class/division 8

Secondary hazard None

Packing group III

Label

15. REGULATORY INFORMATION

OSHA Hazard Communication Status Corrosive to Metals, Category 1
Skin Irritation, Category 2
Serious Eye Damage, Category 1
Acute Toxicity: Inhalation, Category 4
Carcinogenicity, 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)
Tetrasodium ethylenediaminetetraacetate (Na ₄ EDTA)	5,000 lb
Sodium hydroxyacetate	None
Sodium hydroxide	1,000 lb
Nitrilotriacetate, trisodium salt (NTA)	None
Non-hazardous substances	None
Product (Notify the EPA of spills exceeding this amount.)	50,000 lb

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

Section 302 Extremely Hazardous Substances (40 CFR 355)

Chemical Name	CAS#	RQ	TPQ
None			

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

HMIS Ratings	Health—2; Flammability—0; Reactivity—0
NFPA Ratings	Health—2; Flammability—0; Reactivity—0
HMIS/NFPA Rating Scale	Minimal—0; Slight—1; Moderate—2; Serious—3; Severe—4
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