

NFPA	GHS Pictogram	Personal Protective Equipment
		

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	Product form	Product code
Steam Pro	Mixture	ST-PR

1.2. **Relevant identified uses of the substance or mixture and uses advised against:** Boiler boil-out solution. Boiler treatment chemical.

1.3. Details of the supplier of the safety data sheet

Rhomar HTF LLC, dba Rhomar Water
2103 E. Rockhurst St., Springfield, MO 65802 USA
T 417-862-2600; F 417-862-6410
Email: TalkToUs@rhomarwater.com

1.4. Emergency telephone number
CHEM TREC: 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

GHS Pictogram:



Signal Word: **Warning!**

Hazard Statements:

- H316:** Causes mild skin irritation (*Skin corrosion/irritation: Category 2B*).
- H320:** Causes eye irritation (*Serious eye damage/eye irritation: Category 2B*)
- H302:** Harmful if swallowed (*Acute toxicity/Inhalation: Category 4*)
- H333:** May be harmful if inhaled (*Acute toxicity/Inhalation: Category 5*)
- H402:** Harmful to aquatic life (*Hazardous to aquatic life/Acute toxicity: Category 3*)

Precautionary Statements:

- P270** : Do not eat, drink or smoke when using this product.
- P264** : Wash hands thoroughly after handling
- P102** : Keep out of reach of children.
- P305 + P351 + P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313:** If eye irritation persists: Get medical advice/attention.
- P301 + P330 + P331:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P304 + P312:** IF INHALED: Call a POISON CENTER/doctor/physician if you feel unwell.
- P403 + P233:** Store in a well ventilated place. Keep the container tightly closed. Protect from sunlight.
- P273 + P390:** Avoid release to the environment. Absorb spillage to prevent material damage
- P501** : Dispose of products in accordance with federal, state and local laws.

Reference: GHS Purple Book-Annex 3

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
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Substance	CAS #	Amount, %
Dispersants and sequestrants*	Blend*	< 1.0
Morpholine	110-91-8	< 0.5
Potassium hydroxide	1310-58-3	< 0.5
Sodium sulfite	7757-83-7	< 1.0
Demineralized water	7732-18-5	Balance

* The specific identities of the polymeric dispersants and sequestrants are a Rhomar Water proprietary trade secret and have thus been withheld.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice: If there exists significant potential for exposure, see **Section 8** for personal protective equipment.

Acute overexposure: Contact with undiluted Steam Pro may be irritating to the eyes and skin. It may also cause burns to the eyes, skin and mucous membranes.

Chronic overexposure: Repeated, continued exposure to this product may cause permanent damage to tissues.
Target organs: Liver, kidneys, bladder, skin

First Aid Procedures:

Eye contact : Immediately flush thoroughly with plenty of water while lifting the lower and upper eyelids occasionally. Seek medical attention if eye irritation occurs.

Skin contact : Wash off with soap and plenty of water. Rinse thoroughly with water. Seek medical attention if irritation occurs. Remove and wash contaminated clothing before reuse.

Inhalation : Move to fresh air. If breathing stops, administer artificial respiration. If symptoms persist, call a physician immediately.

Ingestion : If person is conscious, give them large amounts of drinking water or milk to dilute the stomach contents. DO NOT INDUCE VOMITING. Consult physician

4.2. Indication of any immediate medical attention and special treatment needed: None. Consult a Physician.

Note to Physician: Contains polymeric dispersants and sequestrants. No known antidote. Probable mucosal damage may contraindicate the use of gastric lavage. Treat as symptoms may be.

SECTION 5: FIREFIGHTING MEASURES

NFPA

Flammability 0

Health 2



Stability and reactivity 0

Physical hazard ALK

5.1. Suitable extinguishing media: Non-combustible. Use extinguishing media appropriate for the surrounding fire.

5.2. Unsuitable extinguishing media: Not flammable.

5.3. Special hazards arising from the substance or mixture: Thermal decomposition may result in smoke which may contain harmful combustion products such as carbon monoxide and carbon dioxide among others

5.4. Advise for firefighters: Wear self-contained breathing apparatus (SCBA) which are NIOSH/MSHA approved (or equivalent) and full protective gear for firefighting if necessary

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures:** Use good industrial hygiene practices. Ensure adequate ventilation. Wear safety glasses, impervious rubber gloves and rubber apron as a minimum for personal protection. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION for more information.
- 6.2. Environmental precautions:** Prevent spills from entering sewers, waterways, into soil and groundwater systems. Prevent further leakage if safe to do so. See Section 12, ECOLOGICAL INFORMATION for additional information.
- 6.3. Methods and material for containment and cleaning:** Dam up the area of accidental release to contain large spills. Mechanically collect spillage in suitable containers for disposal in accordance with all federal, state and local regulations. For small spills, adsorb with inert adsorbent material. Material may be neutralized with water. For additional information, see Section 13, DISPOSAL CONSIDERATIONS.

SECTION 7: HANDLING AND STORAGE

- 7.1. Precautions for safe handling:** Observe standard industrial hygiene practices. Proper personal protective equipment required while handling this product. Avoid contact with the eyes and prolonged or repeated skin contact. Avoid breathing mists or vapors. See Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION.
- 7.2. Conditions for safe storage, including any incompatibilities:** Store in original container. Keep storage container tightly closed in a well ventilated place. Avoid storing Steam Pro with strong acids and oxidizers as well as heat, sparks and open flames. See Section 10, STABILITY AND REACTIVITY for more specific information.
- 7.3. Specific end use(s):** Apart from the uses mentioned in Section 1.2, no other specific uses are prescribed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

This product is not known to contain any hazardous materials with established occupational exposure limits by regional regulatory bodies

- 8.1. Exposure controls**
- Eye/face protection** : Wear dust and splash proof goggles or safety glasses with side shields.
- Skin/body protection** : Use gloves chemically resistant to this product such as those made from butyl or nitrile rubber when prolonged contact with material could occur. Wear impervious clothing.
- Respiratory protection** : Wear suitable personal respiratory protection and protective suit in case of mist, aerosol or spray exposure.
- 8.2. Engineering controls** : Adequate ventilation – mechanical or exhaust - should be ensured. Safety shower and eyewash station should be located in the immediate work place.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid	Specific Gravity (H₂O=1), g/mL	1.014 – 1.020
Appearance	Dark green	Evaporation Rate (H₂O = 1)	No data available
Odor	Slight amine odor	% Volatiles by Volume	~60% (Water)
pH (as is)	11.0 – 12.0	Vapor Pressure	No data available
Boiling Point range	210 - 215°F	Vapor Density (Air = 1)	No data available
Initial Boiling Point, 760 mmHg	98.9°C (210°F)	Relative density (Air = 1)	1.01 g/mL

Freezing Point	No data available	Partition Coefficient	No data available
Decomposition temperature	No data available	Water Solubility	Complete
Oxidizing properties	No data available	Flammability Limits (solid, gas)	Not applicable to liquids
Flammability/explosive limit	No data available	Autoignition Temperature	No test data available
Viscosity, cPs	30 - 50	Flash Point	No data available

9.2. **Other information** : None available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity** : No specific data available
- 10.2. **Chemical stability** : Stable under recommended storage and handling conditions
- 10.3. **Possibility of hazardous reactions:** Polymerization will not occur
- 10.4. **Conditions to avoid** : High temperatures. Exposing this product to incompatible materials should be avoided
- 10.5. **Incompatible materials** : Strong oxidizers and strong acids.
- 10.6. **Hazardous decomposition products:** Thermal decomposition may produce carbon monoxide, carbon dioxide and phosphorus oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Chemical name	Exposure route	Test specimen	Test result	Reference
Steam Pro	Dermal	No data available	No data available	Literature
	Oral	Rat	LD ₅₀ > 5,000 mg/Kg	
	Eye	Rabbit	Draizie score 3.3/110	
	Respiratory	Rat	LD ₅₀ > 10 mL/Kg	

Chronic effects

Short-term exposure: May be irritating to the eyes and skin.

Long-term exposure: Irritated tissue may become permanently damaged with repeated exposure

Symptoms associated with exposure: Ulceration, irritation, burning, shortness of breath

Carcinogenicity : No ingredient of this product in levels $\geq 0.1\%$ is identified and listed by OSHA, ACGIH, NTP, IARC or Mexico as a known or suspected carcinogen

Mutagenic, reproductive, developmental, target organ or neurological effects : No information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Aquatic toxicity

Chemical Name	Description of ecological effect
Steam Pro (E.G. 96 hour TLM)	LC ₅₀ - 368 mL/L (96 hour; <i>Leuciscus idus</i>); Acute EC ₅₀ - 209 mg/L (48 hour; <i>Daphnia magna</i>); Acute EC ₅₀ - 110 mg/L (72 hour; Green algae); Acute EC ₂₀ - >1000 mg/L (30 minutes; Activated sludge)

- 12.2. **Persistence and degradability** : No data available
- 12.3. **Bioaccumulative potential** : Biodegradable, OECD 301A, 90 – 100 % (22 days)
- 12.4. **Adsorption or Leaching studies**: Bioaccumulation, OECD 305C, CARP (28 days); Bio-concentration factor < 6.1
- 12.5. **Mobility in soil** : Not known
- 12.6. **Other adverse effects** : None known

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 **Unused/uncontaminated product**: Contact a licensed: Recycler. Reclaimer. Incinerator.
- 13.2 **Waste disposal methods**: Whenever possible, minimize waste. Waste should be disposed of in accordance with all laws and regulations pertaining to this product in your area of jurisdiction.
- 13.3 **Contaminated packaging**: Decontaminate empty containers. Treat decontamination fluid as waste and dispose as above. You may take the containers for local recycling.
- 13.4 **Physical properties that may affect disposal activities**: Steam Pro doesn't meet RCRA's characteristic definition of ignitability, or reactivity. However, it exhibits the characteristic of corrosivity, pH > 12, (code RCRA: D002)
- 13.5 **Chemical properties that may affect disposal activities**: Toxicity Characteristic Leaching Procedures (TCLP) has not been performed on Steam Pro.

NOTE: Do not dump into any sewers, on the ground, or into any water body. All disposal practices must be in compliance with all federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are solely the responsibility of the waste generator.

SECTION 14: TRANSPORT INFORMATION

International Transport regulations: This product is not covered by the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

Domestic Transport regulations :

- DOT (USA)** - Not regulated;
- TDG (Canada)** - Not regulated;
- MEX (Mexico)** - Not regulated.

NOTE: This information is not intended to convey all specific regulatory or operational requirements relating to the transportation of this product. Additional transportation information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of this material.

SECTION 15: REGULATORY INFORMATION

US Federal regulations

- SARA 313:** This product does not contain any components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.
- SARA 311/312:** Acute health hazard: No
Chronic health hazard: No
- SARA 302:** This product is not known to contain any chemical components at levels subject to the reporting requirements of SARA Title III, Sections 302 or regulations contained in 40 CFR 302.

15.2. **US State regulations**

Pennsylvania Worker and Community-Right-To-Know Act (Act 159 of 1984): This product does not contain chemicals at levels that need to be listed to meet the additional requirements of the Pennsylvania State Law.

Proposition 65: This product does not contain chemicals listed in the State of California as carcinogens, reproductive toxins at levels requiring a warning under this statute

15.3. **Worldwide Chemical Inventory Status :**

All the ingredients in this product are listed in USA's TCSA, and Canada's DSL inventories

SECTION 16: OTHER INFORMATION

Prepared by	Preparation date	Revision date	Revision number
Rhomar HTF LLC, dba Rhomar Water	04/15/2014	12/23/2015	6

LEGEND:

CAS : Chemical Abstracts Service	CFR : Code of Federal Regulations
TWA : Time Weighted Average	DOT : Department of Transport
IMDG : International Maritime Dangerous Goods	IATA : International Air Transport Association
WEEL : Workplace Environmental Exposure Limit	TDG : Transport of Dangerous Goods
NTP : National Toxicity Program	DSL : Domestic Substances List
SARA : Superfund Amendments and Reauthorization Act	OHSA : Occupational Health and Safety Act
OSHA : Occupational Safety and Health Administration	TCSA : Toxic Substances Control Act
IARC : International Agency for Research on Cancer	MSHA : Mine Safety and Health Administration
NIOSH : National Institute for Occupational Safety and Health	ADR & RID: European Agreements Concerning International Carriage of Dangerous Goods by Rail and by Road
ACGIH : American Conference of Government Industrial Hygienists	

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