




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
Skale-X	Mixture	SK-X

1.2. **Relevant identified uses of the substance or mixture and uses advised against:** Wetting, penetrating and solvating agent used for rapid removal of water scale, lime and rust deposits water heat exchangers.

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 TEL: 1-800-255-3924

SECTION 2: HAZARDS IDENTIFICATION

GHS Pictogram:



Signal Word: **Warning!**

Hazard Statements:

- H316:** Causes mild skin irritation (*Skin Corrosion/Irritation: Category 3*).
- H319:** Causes serious eye irritation (*Serious eye damage/eye irritation: Category 2A*)
- H290:** May be corrosive to metals (*Corrosive to metals: Category 1*)
- H302:** Harmful if swallowed (*Acute toxicity/Inhalation: Category 4*)
- 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.
- P261** : Avoid breathing dust/fume/gas/vapors/spray.
- P280** : Wear protective gloves/eye protection/face protection.
- P305 + P351 + P338 + P337 + P313:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
- P302 + P352 + P362:** IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.
- P301 + P330 + P331 + P312:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you fell unwell.
- P304 + P340 + P312:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P406 + P233** : Store in corrosive resistant container with a resistant inner liner. Keep the container tightly closed
- 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

Substance	Common Name/Synonym	CAS #	Amount, %
Urea hydrochloride	-	506-89-8	8 - 12
Surfactants and wetting agents	-	BLEND	< 0.25
Red dye	-	-	<0.01
Demineralized water	N/A	7732-18-5	Balance

*** The specific identities of the surfactants, wetting agents and actual amounts used for all ingredients are a Rhomar Water proprietary trade secret and have thus been withheld.**

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

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

Skin contact : Wash off with soap and plenty of water while removing contaminated clothes and shoes. Rinse thoroughly with water. Seek medical attention. Wash contaminated clothing before reuse.

Inhalation : Move to fresh air. If breathing is difficult, immediately seek medical attention

Ingestion : Wash mouth with water. If person is conscious, give them plenty of drinking water. **DO NOT INDUCE VOMITING.** Get immediate medical attention. Do not give anything by mouth to an unconscious person.

General advice: If there exists a significant potential for exposure, refer to **Section 8** for personal protective equipment. Acute overexposure to Skale-X causes irritation of the skin and damage to the eyes. Its ingestion may be harmful.

4.2. Indication of any immediate medical attention and special treatment needed: If necessary, oxygen respiration treatment. Medical supervision for at least 48 hours. In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

Note to Physician: Contains Urea hydrochloride. Treat as symptoms may be.

SECTION 5: FIREFIGHTING MEASURES

NFPA

Flammability 0

Health 1



Stability and reactivity 0

Physical hazard -

5.1. Suitable extinguishing media: Carbon dioxide, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. In general, use extinguishing media appropriate for the surrounding fire.

5.2. Unsuitable extinguishing media: None

5.3. Special hazards arising from the substance or mixture: Hydrogen chloride gas.

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:** Ensure adequate ventilation. Avoid breathing vapors or mist. Use safety glasses and impervious gloves as a minimum for personal protection. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION for more information.
- 6.2. **Environmental precautions:** Product corrosive to metals. Do not let large spills of the product enter drains. Small spills may however be diluted with water and allowed to evacuate through the sanitary system.
- 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. For small spills, adsorb with inert adsorbent material. Dispose material in accordance with federal, state and local regulations.

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 skin. 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. Protect from humidity and water. DO NOT store Skale-X in steel or aluminium. Avoid storing Skale-X with acids, alkalis, hypochlorites and strong oxidizers as well as near extreme heat, ignition sources and open flame. 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

Chemical Name	Type of listing	Regulation	Value
Urea hydrochloride	USA ACGIH	ACGIH Ceiling	No data available

- 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 should be ensured. Safety shower and eyewash station should be located in the immediate work place.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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9.1. Information on basic physical and chemical properties

Physical state	Liquid	Specific Gravity (H ₂ O=1), g/mL	1.13 @ 20 °C (68 °F)
Appearance	Clear, red	Evaporation Rate (H ₂ O = 1)	No data available
Odor	Slight odor	Odor threshold	No data available
pH (as is)	<1	Vapor Pressure	No data available
pH of a 1% solution	Not established	Vapor Density (Air = 1)	No data available
Boiling Point (760 mmHg)	100 °C (212 °F)	Relative density (Air = 1)	No data available
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, cP	10 – 20 @ 25 °C (77 °F)	Flash Point	No data available

9.2. Other information : None available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity** : No data available
- 10.2. **Chemical stability** : Stable under recommended storage and handling conditions
- 10.3. **Possibility of hazardous reactions:** Exothermic reactions. Reacts with amines, alkali and metals, oxidizing agents. Contact with acids releases toxic gases. Corrodes copper, brass and aluminium.
- 10.4. **Conditions to avoid** : Exposing this product to elevated temperatures can cause it to decompose generating gases which can cause pressure buildup in closed systems. Store away from oxidizing agents.
- 10.5. **Incompatible materials** : Alkalis. Amines. Oxidizers.
- 10.6. **Hazardous decomposition products:** Hydrogen chloride. Chlorine. Carbon monoxide. Carbon dioxide. Nitrogen oxides

SECTION 11: TOXICOLOGICAL INFORMATION
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Information on toxicological effects:**Acute toxicity:**

Chemical name	Exposure route	Test specimen	Lethal Dose (LD ₅₀)	Reference
Skale-X	Oral	Rat	1100 mg/Kg	Literature
	Skin, eye, respiratory		No test data available	

Chronic effects:

Short-term exposure: Skin irritation and eye damage.

Long-term exposure: No data available

Symptoms associated with exposure: Redness, itching, burning (from least to the most severe)

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
Skale-X	LC ₅₀ (96 h) 650 mg/L, <i>Oncorhynchus mykiss</i> (static); EC ₅₀ (24 h) 300 mg/L, <i>Daphnia magna</i> (DIN 38412 Part 11, static); EC ₅₀ (96 h) 70 mg/L (growth rate), <i>Selenastrum capricornutum</i> (static).

- 12.2. **Persistence and degradability:** Readily biodegradable (according to OECD criteria. Literature data.
- 12.3. **Bioaccumulative potential** : Accumulation in organisms is not to be expected.
- 12.4. **Mobility in soil** : Mobility potential of product is likely to be high due to its 100 % miscibility in water
- 12.5. **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:** Skale-X doesn't meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity and none of its ingredients are listed in 40 CFR 261.33
- 13.5 **Chemical properties that may affect disposal activities:** Toxicity Characteristic Leaching Procedures (TCLP) has not been performed on Skale-X.

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

Domestic Transport regulations : DOT (USA) and TDG (Canada) – Proper shipping name: **UN3265**; Corrosive Liquid, Acidic, Organic, N.O.S. (contains: Urea hydrochloride). Hazard Class: **8**; Packing group: III **ERG 132.**

Label required:



***Additional shipping information:** May be shipped in 5 L (1.3 gallon) containers in a stronger external containment (packaging) not exceeding 30 Kgs (66 pounds) gross weight according to CFR 173.154 (b) (2), (c) or (d).

International Transport regulations: Proper shipping name: **UN3265**; Corrosive Liquid, Acidic, Organic, N.O.S. (contains: Urea hydrochloride), **8, PG III**

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: Yes
Chronic health hazard: No
- SARA 302:** This product is not known to contain any chemical components 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): No ingredient in this product requires listing 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	11/05/2014	12/23/2015	3

LEGEND:

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| 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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