

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
ThermaGard RTU	Mixture	TG-RTU

1.2. **Relevant identified uses of the substance or mixture and uses advised against:** Closed recirculating loop systems scale and corrosion inhibitor. Not for use where incidental food contact may occur.

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 Statement (*Hazard Characterization*):

- H316:** Causes mild skin irritation (*Skin Corrosion/Irritation: Category 3*).
- H320:** Causes eye irritation (*Serious Eye Damage/Eye Irritation: Category 2B*).
- H302:** Harmful if swallowed (*Acute Toxicity/Oral: Category 4*).
- H333:** May be harmful if inhaled (*Acute Toxicity/Inhalation: Category 5*)

Precautionary Statements:

- P264 + P270:** Wash exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.
- 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/attention.
- P332 + P313:** If skin irritation occurs: Get medical advice/attention.
- P301 + P331 + P312:** IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a POISON CENTER/doctor/physician if you fell unwell.
- P304 + P312:** IF INHALED: Call a POISON CENTER/doctor/physician if you fell unwell.
- P370 + P378 + P380:** IN CASE OF A FIRE: Use alcohol-resistant foam or dry carbon dioxide or media compatible with surrounding fire for extinction. Evacuate area.
- P233 + P410 + P403:** Keep the container tightly closed in a well ventilated place. Protect from sunlight.
- P102:** Keep out of reach of children.
- P501:** Dispose of contents/container in accordance with applicable federal, state and local laws.

Reference: GHS Purple Book-Annex 3

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Common Name/Synonym	CAS #	Amount, %
Propylene glycol	N/A	57-55-6	25 – 60
Corrosion inhibitors*	N/A	Blend*	0.5 – 1.5
Demineralized water	Water	7732-18-5	Balance

* The specific identities of the corrosion inhibitors and the polymeric dispersants are a Rhomar Water trade secret and is thus withheld.

SECTION 4: FIRST AID MEASURES

- 4.1. **General advice:** If there exists potential for exposure, refer to **Section 8** for personal protective equipment.
- 4.2. **Effects of overexposure:**
Acute overexposure: May irritate the skin and eyes. Its ingestion may result in gastrointestinal discomfort.
Chronic overexposure: No data available.
- 4.3. **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 stops, administer artificial respiration to maintain breathing. If breathing is difficult, oxygen should be administered provided a qualified operator is present. Immediately get medical attention if any symptoms exist.
Ingestion : Wash mouth with water. If person is conscious, give them 2 – 4 cups of drinking water. DO NOT INDUCE VOMITING. Get immediate medical attention. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.
- 4.4. **Note to Physician:** Contains propylene glycol and alkaline corrosion inhibitors. Treat as symptoms may be.

SECTION 5: FIREFIGHTING MEASURES

NFPA

Flammability 1
Health 1



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. Do not dry chemicals containing ammonium phosphate.
- 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. This product may however support combustion of other materials.
- 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:** 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. For small spills, adsorb with inert adsorbent material. Dispose material in accordance with federal, state and local laws. For additional information, see Section 13, DISPOSAL CONSIDERATIONS.

SECTION 7: HANDLING AND STORAGE
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- 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 and dry place. Do not expose the product to excessive heat. Keep out of reach of children. Protect from physical damage. Avoid storing ThermaGard RTU with strong acids and oxidizers. 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
Propylene glycol	TWA	OHSA - WEEL	10 mg/m ³

- 8.1. **Exposure controls**
- Eye/face protection** : Wear dust and splash proof goggles or safety glasses with side shields as described by OSHA's eye and face protection regulation found in 29 CFR 1910.133
- 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 (H₂O=1), g/mL	1.01 – 1.02
Appearance	Clear, red	Evaporation Rate (H₂O = 1)	1.0
Odor	Odorless	Odor threshold	No data available
pH range (as is)	8.5 – 10.0	Vapor Pressure	No data available
pH of a 1% solution	Not established	Vapor Density (Air = 1)	No data available
Boiling Point, 760 mmHg	104 - 110 °C(219 - 230°F)	Relative density (Air = 1)	No data available
Freezing Point, 760 mmHg	-10 to -51 °C(14 to -60 °F)	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
Viscosity	No data available	Autoignition Temperature	No data available
Flash Point	104°C (219°F), Pensky-Martens Closed Cup ASTM D93 based on Propylene glycol		
Flammability/explosive limit	Lower: 2.6 % Vol; upper: 12.5 % Vol Literature Propylene glycol (25°C, 760 mmHg)		

- 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:** Polymerization will not occur
- 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.
- 10.5. **Incompatible materials** : Avoid contact with strong oxidizers, strong acids, strong bases
- 10.6. **Hazardous decomposition products:** None

SECTION 11: TOXICOLOGICAL INFORMATION
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Information on toxicological effects

Acute toxicity: No significant toxicity concern posed by oral, dermal and inhalation exposure to this product.

Chemical name	Exposure route	Test specimen	Lethal Dose (LD ₅₀)	Reference
Propylene glycol	Oral	Rat	8000-46000 mg/Kg	Literature
		Mouse	23000-24900 mg/Kg	
		Guinea pig	18000-20000 mg/Kg	
	Skin	Rabbit	Non-irritant	
	Eye	Rabbit	Non-irritant	
ThermaGard RTU	No test data available			

Chronic effects:

Short-term exposure: Irritating to the eyes. May be harmful if ingested.

Long-term exposure: Repeated exposure may cause permanent tissue damage

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
Propylene glycol	Acute LC ₅₀ > 51,400 mg/L (96 hour; Fathead minnow - <i>Pimephales promelas</i>) Acute EC ₅₀ > 1,000 mg/L (48 hour; Water flea - <i>Daphnia magna</i>) Acute EC ₅₀ > 19,000 mg/L (96 hour; Fresh water algae - <i>Pseudokirchneriella subcapitata</i>)
ThermaGard RTU	No test data available

12.2. **Persistence and degradability:** No data available

12.3. **Bioaccumulative potential** : No data available

12.4. **Mobility in soil** : Mobility potential of product is likely to be high due to its 100 % miscibility in water

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:** ThermaGard RTU 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 ThermaGard RTU.

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

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 is not known to contain any chemicals at levels subject to the reporting requirements of SARA (1986) Title III, Sections 313

SARA 311/312: Acute health hazard: No
Chronic health hazard: No

SARA 302: This product is not known to contain any chemicals subject to the reporting requirements of SARA (1986) Title III, Sections 302 or Section 304.

15.2. US State regulations

Worker and Community-Right-To-Know Act: Propylene glycol (CAS RN 57-55-6) is listed in the Pennsylvania and New Jersey states' right to know lists.

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	12/23/2015	12/23/2015	1

LEGEND:

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