## **Houghton Chemical Corporation**

## Safety Data Sheet



## WINTREX® R

| Section 1 - Identification     |  |  |                       |                             |  |  |  |  |
|--------------------------------|--|--|-----------------------|-----------------------------|--|--|--|--|
|                                |  | Houghton Chemical Corporation  |                       |                             |  |  |  |  |
| Manufacturer Address           |  | 52 Cambridge Street, Allston, MA 02134<br>1-617-254-1010 or 1-800-777-2466 |                       |                             |  |  |  |  |
| Emergency Telephone            | CHEMTREC: 1-800-424-9300   |  |                       |                             |  |  |  |  |
| Chemical Name & Synonyms       | Reused/Reclaimed Antifreeze / Inhibited Ethylene Glycol  |  |                       |                             |  |  |  |  |
| Chemical Family                | Ethylene Glycol Mixture  |  |                       |                             |  |  |  |  |
| Recommended Use                | Heat Transfer Fluid  |  |                       |                             |  |  |  |  |
| Restrictions on Use            |  |  |                       |                             |  |  |  |  |
| restrictions on ose            | Restrictions on Use Use only as directed in approved applications.  Section 2 – Hazard(s) Identification |  |                       |                             |  |  |  |  |
|                                |  | ute Toxicity, Oral, Category 4   | itiiioatioii          |                             |  |  |  |  |
|                                |  | n Corrosion / Irritation, Category   | 2                     |                             |  |  |  |  |
| Hazard Classification          |  | ecific Target Organ Toxicity (Sing   |                       | ory 1                       |  |  |  |  |
|                                |  | ecific Target Organ Toxicity (Repe   |                       |                             |  |  |  |  |
| Signal Word                    |  | nger   | <u> </u>              | inggery <u>–</u>            |  |  |  |  |
|                                |  | rmful if swallowed. Causes skin i  | rritation. Caused da  | mage to the central nervous |  |  |  |  |
| Hazard Statement               | sys  | tem (CNS) and kidneys if swallow   | ved. May cause dan    | nage to kidneys through     |  |  |  |  |
|                                | pro  | longed or repeated exposure if sv  | wallowed.             | , ,                         |  |  |  |  |
| Pictogram Description          | He   | Health Hazard, Exclamation Point   |                       |                             |  |  |  |  |
|                                | Pre  | evention:  |                       |                             |  |  |  |  |
|                                | Wa   | ish hands and any other contamir   | nated skin after hand | lling. Do not eat, drink or |  |  |  |  |
|                                | sm   | oke when using this product. We  | ar protective gloves  | (chemically impervious). Do |  |  |  |  |
|                                | not breathe mist, vapors or spray.   |  |                       |                             |  |  |  |  |
|                                | Response:  |  |                       |                             |  |  |  |  |
|                                | If swallowed: Call a poison control center or doctor if you feel unwell. Rinse mouth.                    |  |                       |                             |  |  |  |  |
|                                | If on skin: Wash with plenty of water.   |  |                       |                             |  |  |  |  |
|                                | If skin irritation occurs: Get medical attention. Take off contaminated clothing and                     |  |                       |                             |  |  |  |  |
| Precautionary Statement        | wash it before reuse.  |  |                       |                             |  |  |  |  |
|                                | If exposed: Call a poison control center.  |  |                       |                             |  |  |  |  |
|                                | Get medical attention if you feel unwell.  |  |                       |                             |  |  |  |  |
|                                | Storage:   |  |                       |                             |  |  |  |  |
|                                | Store locked up.   |  |                       |                             |  |  |  |  |
|                                | Disposal: Contact local sewer, municipal, state and/or federal agencies to determine appropriate         |  |                       |                             |  |  |  |  |
|                                | disposal options for the product. Dispose of this container with a registered                            |  |                       |                             |  |  |  |  |
|                                | reconditioner or as otherwise appropriate.   |  |                       |                             |  |  |  |  |
| Any other Hazard not otherwise | 160  | oriditioner or as otherwise approp   | mate.                 |                             |  |  |  |  |
| classified                     | No   | t Applicable   |                       |                             |  |  |  |  |
|                                | 1 3 -  | - Composition and Informa  | ation on Ingredic     | ents                        |  |  |  |  |
| Chemical Name                  |  | Common name and synonyms   | CAS#                  | % by weight                 |  |  |  |  |
| Ethylene Glycol                |  | Monoethylene Glycol  | 107-21-1              | 96%                         |  |  |  |  |
| Water                          |  | N/A  | 7732-18-5             | 2%                          |  |  |  |  |
| Inhibitors & Dye               |  | N/A  | Proprietary           | 2%                          |  |  |  |  |
|                                |  |  |                       |                             |  |  |  |  |

| Section 4 – First aid Measures |  |              |   |  |  |  |
|--------------------------------|--|--------------|---|--|--|--|
|                                |  |              | Symptoms of Exposure  |  |  |  |
| Λ                              | Irritation of affected ar                        |              | symptoms of reddening, itching, swelling, burning, possible permanent   |  |  |  |
| Acute                          | damage, nausea, vomiting, weakness, and death    |              |   |  |  |  |
|                                | Irritation of affected ar                        | ea with s    | symptoms of reddening, itching, swelling, burning, possible permanent   |  |  |  |
| Delayed                        |  |              |   |  |  |  |
|                                | metabolic acidosis, hypocalcemictetany and death |              |   |  |  |  |
| Inhalation                     |  |              | atory irritation and may be harmful if inhaled.   |  |  |  |
| Skin                           |  | _            | armful if absorbed through skin.  |  |  |  |
| Eye Contact                    | Irritation may cause tra                         |              |   |  |  |  |
| Ingestion                      | Toxic: may be harmful                            | or fatal     |   |  |  |  |
|                                |  |              | First Aid Instructions  |  |  |  |
| Inhalation                     |  |              | er oxygen if breathing is difficult. Give artificial respiration if victim is not   |  |  |  |
|                                | breathing. Seek medic                            |              |   |  |  |  |
| Skin                           |  |              | r for at least 20 minutes. Remove any contaminated clothing. Seek   |  |  |  |
|                                |  |              | if symptoms or irritation develops.   |  |  |  |
| Eye Contact                    |  |              | minutes. Seek medical attention if irritation develops or persists.   |  |  |  |
|                                |  |              | k medical attention immediately. If swallowed give 2 to 3 glasses of dalert. Do not give anything by mouth to an unconscious person. To |  |  |  |
| Ingestion                      |  |              | d product, lay victim on side with head lower than waist. Vomiting may  |  |  |  |
| Ingestion                      |  |              | ng occurs and the victim is conscious, give water to victim to further  |  |  |  |
|                                | dilute the chemical.                             | ii voiiiilii | ig occurs and the victim is conscious, give water to victim to further  |  |  |  |
| Other                          |  | how saf      | ety data sheet to the doctor in attendance.   |  |  |  |
| Guioi                          |  |              | 5 – Fire Fighting Measures  |  |  |  |
|                                |  |              | , water fog, water spray, alcohol-resistant foam, dry chemical, sand,   |  |  |  |
| Suitable Extinguis             | shing Material                                   |              | bon dioxide.  |  |  |  |
| Unsuitable Exting              | uishing Material                                 |              | ta Available  |  |  |  |
| _                              | -  |              | e may contain the original material in addition to but not limited to:  |  |  |  |
| Hazards from Cor               | mbustion   |              | n Monoxide, Carbon Dioxide.   |  |  |  |
| Special Protective             | e Equipment for                                  |              | self-contained breathing apparatus and protective suit. Evacuate  |  |  |  |
| Firefighters                   |  |              | nnel to safe areas and keep upwind of fire.   |  |  |  |
|                                | Section  | •            | Accidental Release Measures   |  |  |  |
| llas ef a cascasal a           |  |              | Ventilate area of leak or spill. Remove all sources of ignition. Wear   |  |  |  |
| Use of personal precautions    |  |              | appropriate personal protective equipment.  |  |  |  |
|                                |  |              | Use of safety glasses or googles is recommended. Chemical resistant   |  |  |  |
|                                |  |              | gloves, chemical resistant apron, boots, and full suit will be necessary  |  |  |  |
|                                | nent to prevent the                              |              | depending on the extent of clean up task. If ventilation does not control   |  |  |  |
| contamination of               | skin, eyes, and clothing.                        |              | airborne concentration then respiratory protection equipment that   |  |  |  |
|                                |  |              | meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements  |  |  |  |
|                                |  |              | should be used.   |  |  |  |
| Methods and mat                | erials used for containm                         | ent          | Collect liquid in an appropriate container or absorb with inert material  |  |  |  |
|                                |  | -            | and place in chemical waste container.  |  |  |  |
| Cleanup procedu                | res  |              | Do not flush to sewer. Comply with all federal, state, and local  |  |  |  |
| regulations.                   |  |              |   |  |  |  |
|                                | S  | ection       | 7 – Handling and Storage  |  |  |  |
|                                |  |              | Protect container from physical damage. Wear appropriate personal   |  |  |  |
| Precautions for sa             | afe handling                                     |              | protection equipment. Do not expose containers to open flame,   |  |  |  |
| 1 Todadions for sale nariding  |  |              | excessive heat, or direct sunlight. Use local exhaust over processing   |  |  |  |
|                                |  |              | area. Do not eat, drink or smoke around products.   |  |  |  |
| Pocommondation                 | us on the conditions for a                       | ofo          | Store in a cool, dry and well ventilated area away from sources of heat,  |  |  |  |
|                                |  |              | moisture and incompatible materials. Observe all warnings and precautions listed for the product. Keep container closed to prevent      |  |  |  |
|                                |  |              | contamination.  |  |  |  |
|                                |  |              | oontamination.  |  |  |  |

| Section 8 – Exposure Controls/Personal Protection  |  |                |   |  |  |  |  |
|--|--|----------------|---|--|--|--|--|
| OSHA Permissible   |  |                | Not Applie  |  |  |  |  |
| American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values |  |                | ACGIH TLV: 100 mg/m3  |  |  |  |  |
| Other Exposure Limits  |  |                | OSHA - Table Z-1 Limits for air contaminants - 1910.1000: 50 ppm 125 mg/m3 .                |  |  |  |  |
| Engineering Control  |  |                | Use mech  | Use mechanical (general) ventilation to control airborne levels below exposure guidelines.                   |  |  |  |
| Individual Protection Measures   |  |                | Wear protective safety glasses or goggles, gloves, apron, vapor respirator.                 |  |  |  |  |
|  | Section (  | Dhysical       | and Chemical and Chemical Properties  |  |  |  |  |
| Annagrana (nhugia  |  |                |   |  |  |  |  |
| Appearance (physic   |  |                |   | ear, Fluorescent Yellow  |  |  |  |
| Upper/lower flamma   | ability or explos  | sive limits    |   | sive; LOWER: 3.2% (v) UPPER: 15.3% (v)   |  |  |  |
| Odor   |  |                | Slight to r   |  |  |  |  |
| Vapor pressure   |  |                |   | D.1 mmHg   |  |  |  |
| Odor threshold   |  |                | No data a   | vailable   |  |  |  |
| Vapor density (air =   | : 1)   |                | 2.14  |  |  |  |  |
| pН   |  |                | 8.0 - 10.5  |  |  |  |  |
| Relative density   |  |                | 1.120 - 1.  | 135  |  |  |  |
| Freezing point (as 5   | 50%)   |                | -34°F / -3  | 7°C  |  |  |  |
| Solubility(ies)  |  |                | Miscible in   | n water  |  |  |  |
| Initial boiling point a  | Initial boiling point and boiling range  |                |   | 385°F / 196°C  |  |  |  |
| Flash point  |  |                | 232°F / 111°C   |  |  |  |  |
| Evaporation rate (B  | utvl Acetate =   | 1)             | <1  |  |  |  |  |
| Flammability (solid, gas)  |  |                | Not Flammable   |  |  |  |  |
| Partition coefficient: n-octanol/water   |  |                | No Data Available   |  |  |  |  |
| Auto-ignition temperature  |  |                | > 700°F /   |  |  |  |  |
| Decomposition tem  |  |                | Not Applie  |  |  |  |  |
| Viscosity  | porataro, arra   |                | ~16 cps at 60°F   |  |  |  |  |
| Viocosity  |  | Section 1      |   | 0 – Stability and Reactivity   |  |  |  |
|  |  |                |   | /pical use temperatures.   |  |  |  |
| Chemical Stability   |  |                |   |  |  |  |  |
| Hazardous Reaction   | nc   |                | ole under typical use temperatures. with oxidizing materials strong bases and strong acids. |  |  |  |  |
| Conditions to Avoid  |  |                |   |  |  |  |  |
| Incompatible Materi  |  |                | gnition sources and incompatibles.  |  |  |  |  |
|  |  |                | with oxidizing agents, strong bases and strong acids.                                       |  |  |  |  |
| Decomposition Prod   | Julio  |                | e and carbon monoxide may form when heated to decomposition.                                |  |  |  |  |
| 13 d D. ( 75   |  | Section 11     |   | ological Information   |  |  |  |
| Likely Routes of Exposure  |  |                |   | es / Skin / Ingestion / Inhalation   |  |  |  |
| D   15"  |  | n Short Term E | xposure   | Effects from Long Term Exposure  |  |  |  |
| Delayed Effects  | Irritation of aff  |                |   | Irritation of affected area  |  |  |  |
|  | mmediate Effects   Irritation of affected area   |                |   | Irritation of affected area  |  |  |  |
| Chronic Effects Not Applicable   |  |                |   | Teratogenic effects  |  |  |  |
| The numerical measures of toxicity (e.g., acute toxicity                                 |  |                |   | Skin: LD50 - Rabbits - >10600 mg/kg Ingestion: LD50 -  |  |  |  |
| estimates such as the LD50 (median lethal dose)) - the                                   |  |                |   | Rats - 7712 mg/kg Lethal Dose Human Adult - 90mL   |  |  |  |
| _  | estimated amount [of a substance] expected to kill 50  |                |   |  |  |  |  |
| test animals in a single dose.   |  |                |   |  |  |  |  |
| symptoms associate   | Description of the symptoms. This description includes the symptoms associated with exposure to the chemical |                |   | Irritation, nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, |  |  |  |
| including symptoms from the lowest to the most severe                                    |  |                | evere   | cardiovascular collapse, pulmonary edema,  |  |  |  |
| exposure.  |  |                |   | hypocalcemictetany, metabolic acidosis, death.   |  |  |  |

|                               | T   |  | T                       |   |                                  | T                |
|-------------------------------|---|--|-------------------------|---|----------------------------------|------------------|
|                               |   | Found to be a  |                         |   |                                  |                  |
| Listed in the                 |   | potential  |                         |   |                                  |                  |
| National                      |   | carcinogen in the  |                         |   | Found to be                      |                  |
| Toxicology                    | No  | International  | No                      |   | a potential                      | No               |
| Program (NTP)                 | INO   | Agency for   | INO                     |   | carcinogen                       | INO              |
| Report on                     |   | Research on  |                         | k   | oy OSHA?                         |                  |
| Carcinogens?                  |   | Cancer (IARC)  |                         |   |                                  |                  |
|                               |   | Monographs?  |                         |   |                                  |                  |
|                               |   | Section 12 – Ecolo   | gical Informati         | ion   |                                  |                  |
| Ecotoxicity                   | Low Ecotoxic  | Low Ecotoxicity  |                         |   |                                  |                  |
| Persistence and Degradability | Biodegradabl  | Biodegradable  |                         |   |                                  |                  |
| Bioaccumulation               |   | accumulate significantly   |                         |   |                                  |                  |
| Mobility in Soil              | Dissolves in v<br>water   | vater. If product enters s   | oil, it will be highly  | mobile  | e and may con                    | taminate ground  |
| Other Adverse                 | No Data Avai  | lahla  |                         |   |                                  |                  |
| Effects                       |   |  |                         |   |                                  |                  |
|                               |   | Section 13 – Dispos  |                         |   |                                  |                  |
|                               |   | or into any bodies of water  | er. Contact local se    | ewer, r   | municipal, stat                  | e and/or federal |
| agencies to determine         | ne appropriate dis  |  |                         |   |                                  |                  |
| le product DOT re-            | loted in New Dell   | Section 14 – Trans   | sport informati         | on  | No                               |                  |
| Is product DOT regu           | liated in Non-Bulk  |  |                         | _   | No                               |                  |
| LINI servenin a s             |   | DOT E  | BULK                    |   | LINIOOOO                         |                  |
|                               | UN number   |  |                         |   | UN3082 Environmentally hazardous |                  |
| substar                       |   |  |                         |   | substances,                      |                  |
| Transport hazard cla          |   |  |                         |   | 9                                |                  |
| Packing group numb            |   | if it is a marine mall stant   |                         |   | III                              |                  |
| International Maritim         | Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code))  Not Regulated  |  |                         |   |                                  |                  |
|                               |   | ling to Annex II of MARP   |                         |   | Not Dec. 1sts                    |                  |
|                               |   | n and Equipment of Ship  |                         | rous  | Not Regulate                     | ed               |
|                               |   | Chemical Code (IBC Co  |                         |   |                                  |                  |
|                               | Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their  Reportable Quantity (RQ): 5000 lbs Ethylene Glycol |  |                         |   |                                  |                  |
|                               | 15 – Regulate   | ory Information (No  | t indicated any         | /whe  | re else on t                     | his SDS)         |
|                               | .o Rogulati   |  |                         |   |                                  |                  |
| Safety Regulations            |   | OSHA Hazard Communication Standard: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |                         |   |                                  |                  |
| Health Regulations            |   | Not Available  | aza.a Commun            | . 5411011   | . 3.4.14414, 20                  | 2. 1. 1010.1200. |
| Environmental Regu            | lations   | Not Available  |                         |   |                                  |                  |
| SARA 311/312                  |   | Based upon available in material is classified as health and/or physical haccording to Section 31  | the following<br>azards | Superfund Amendments and Reauthorization Act of 1986 Title III (SARA) Sections 311 and 312: Immediate (Acute) Health Hazard - Yes; Delayed (Chronic) Health Hazard - Yes; Fire Hazard - No; Reactive Hazard - No; Sudden Release of Pressure Hazard - No. Section 313: Product contains the following substances which are subject to reporting requirements and are listed |                                  |                  |
| HMIS                          |   | Blue/Health Red/Flammability Orange/Physical Hazard  | 4                       | in 40 CFR 372 - Component: Ethylene Glycol CAS#: 107-21-1 Amount: >=99.0%.  |                                  |                  |
|                               | -   |  |                         |   |                                  |                  |
|                               |   | vviille/Feisonai Fiolecti  | Uli                     | X   |                                  |                  |

| NFPA                                  | Health (Blue)             | 2  |  |  |
|---------------------------------------|---------------------------|--|--|--|
| 0 (no hazard) to 4 (severe risk)      | Flammability (Red)        | 1  |  |  |
|                                       | Instability/Reactivity (Y | N/A  |  |  |
|                                       | Special (White)           | 0  |  |  |
| US Toxic Substance Control Act        |                           | All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30          |  |  |
| CEPA – Domestic Substances List (DSL) |                           | All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed. |  |  |

## **Section 16 – Other Information**

This SDS is applicable for all dilutions and containers for this brand of product. The information herein is provided in good faith and believed to be accurate as of the effective revision date shown. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/ user's responsibility to ensure that activities comply with all federal, state, provincial or local law.

| 40%           | 35%   | 30%   | 25%   |
|---------------|---|---|---|
| 40%           | 35%   | 30%   | 25%   |
| 60%           | 65%   | 70%   | 75%   |
| 1.055 - 1.070 | 1.050 - 1.065                                     | 1.045 - 1.057   | 1.035 - 1.050   |
| 4             | 4   | 3   | 3   |
| -10°F / -23°C | -4°F / -18°C                                      | +4°F / -15°C  | +10°F / -12°C   |
|               | 40%<br>60%<br>1.055 - 1.070<br>4<br>-10°F / -23°C | 40%     35%       60%     65%       1.055 - 1.070     1.050 - 1.065       4     4 | 40%       35%       30%         60%       65%       70%         1.055 - 1.070       1.050 - 1.065       1.045 - 1.057         4       4       3         -10°F / -23°C       -4°F / -18°C       +4°F / -15°C |

<sup>&</sup>lt;sup>1</sup>Data for mixtures is based on volume of WINTREX® R.

Revision Date: 6/27/2018