# Section 1 - Identification

| Manufacturer Address | Houghton Chemical Corporation  
|                      | 52 Cambridge Street, Allston, MA  02134  
|                      | 1-617-254-1010 or 1-800-777-2466  |
| Emergency Telephone  | CHEMTREC:  1-800-424-9300  |
| Chemical Name & Synonyms | Windshield Washer Antifreeze  |
| Chemical Family      | Methanol Solution  |
| Recommended Use      | Windshield Cleaning/Antifreeze fluid  |
| Restrictions on Use  | Allow defroster to warm windshield before use in cold weather  |

## Section 2 – Hazard(s) Identification

| Hazard Classification | Acute Toxicity, Oral:  Category 3  
|                       | Acute Toxicity, Dermal:  Category 3  
|                       | Acute Toxicity, Inhalation:  Category 3  
|                       | Specific Target Organ Toxicity – Single Exposure:  Category 1  
|                       | Flammable Liquids:  Category 2  |
| Signal Word           | Danger  |
| Hazard Statement      | Toxic if swallowed.  Toxic in contact with skin.  Toxic if inhaled.  Causes damage to eyes, skin, respiratory system, central nervous system, and gastrointestinal tract;  
|                       | Exposure routes include ingestion, inhalation, and skin contact.  Highly flammable liquid and vapor.  |
| Pictogram Description | GHS: Flame, Skull & Crossbones, Health Hazard  |

### Precautionary Statement

**Prevention:**
Wash hands and other contacted skin thoroughly after handling.  Do not eat, drink, or smoke when using this product.  Do not breathe fumes, vapors, mist or sprays.  Use only outdoors or in a well-ventilated area.  Keep away from heat, sparks & open flames.  —No Smoking.  Keep container tightly closed.  Ground & Bond container and receiving equipment.  Use explosion-proof electrical equipment.  Use only non-sparking tools.  Take precautionary measures against static discharge.  Wear eye protection and protective gloves.

**Response:**
If swallowed:  Immediately call a poison center or doctor.  Specific treatment:  DO NOT induce vomiting.  Never give anything by mouth to an unconscious person.  If the victim is conscious, alert, and able to swallow, give 2-4 glasses of water or milk to drink.  Rinse mouth.
If on skin (or hair):  Take off immediately all contaminated clothing and wash it before reuse.  Wash with soap and plenty of water under shower.  Call a poison center or doctor if you feel unwell.
If inhaled:  Remove person to fresh air and keep comfortable for breathing.  Call a poison center or doctor if you feel unwell.
If exposed:  Call a poison center or doctor.
In case of fire:  Use alcohol-resistant foam, dry chemical, sand, or carbon dioxide to extinguish.
Storage:
Store locked up.  Store in a well-ventilated place.  Keep container tightly closed.  Keep cool.
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 classified | Not Applicable
## Section 3 – Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common name and synonyms</th>
<th>CAS #</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>Methyl Alcohol</td>
<td>67-56-1</td>
<td>93%</td>
</tr>
<tr>
<td>Water</td>
<td>N/A</td>
<td>7732-18-5</td>
<td>6%</td>
</tr>
<tr>
<td>Additives &amp; dye</td>
<td>N/A</td>
<td>Proprietary</td>
<td>1%</td>
</tr>
</tbody>
</table>

## Section 4 – First aid Measures

### Symptoms of Exposure

**Acute**
Irritation of affected area, dizziness, visual impairment, respiratory failure

**Delayed**
Central nervous system depression, narcosis, visual impairment, damage to the liver, irritation of affected area, cyanosis of extremities, nausea, acidosis, headache, dizziness, collapse, unconsciousness, vomiting, and death due to respiratory failure.

**Inhalation**
Repeated exposure to high vapor concentration may cause nausea, dizziness, visual impairment, irritant to mucous membranes, muscular incoordination, narcosis, and respiratory failure.

**Skin**
Irritation may occur and repeated exposure may cause dermatitis.

**Eye Contact**
Irritation may cause transitory stinging, tearing, blurred vision and/or blindness

**Ingestion**
Poisonous: Harmful or fatal if swallowed. Dizziness, nausea, vomiting, unconsciousness, and death may occur.

### First Aid Instructions

**Inhalation**
Remove to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Seek medical attention.

**Skin**
Wash skin with plenty of water and mild soap for at least 20 minutes. Remove any contaminated clothing. Seek medical attention immediately if symptoms or irritation persists.

**Eye Contact**
Immediately flush with plenty of water for at least 20 minutes. Seek medical attention if irritation develops or persists.

**Ingestion**
Immediately call a poison center. Rinse mouth but DO NOT induce vomiting, seek medical attention immediately. Do not give anything by mouth to an unconscious person. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to victim to further dilute the chemical.

**Other**
Consult a physician. Show safety data sheet to the doctor in attendance.

## Section 5 – Fire Fighting Measures

### Suitable Extinguishing Material
Alcohol-resistant foam, dry chemical, sand or carbon dioxide.

### Unsuitable Extinguishing Material

### Hazards from Combustion
Normal products of combustion, smoke, Carbon Dioxide, Carbon Monoxide.

### Special Protective Equipment for Firefighters
Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas and keep upwind of fire.

## Section 6 – Accidental Release Measures

### Use of personal precautions
Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment.

### Protective equipment to prevent the contamination of skin, eyes, and clothing.
Use of safety glasses or goggles is recommended. Chemical resistant gloves, chemical resistant apron, boots, and full suit will be necessary depending on the extent of clean up task. If ventilation does not control airborne concentration then respiratory protection equipment that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements should be used.

### Methods and materials used for containment
Wear suitable personal protective equipment. Approach release from upwind. Contain and collect spillage in an appropriate container or absorb with non-comustible inert material and place in spark proof chemical waste container. Dispose according to local regulations.

### Cleanup procedures
Do not flush to sewer. Comply with all federal, state, and local regulations.

## Section 7 – Handling and Storage

### Precautions for safe handling
Protect container from physical damage. Wear appropriate personal protection equipment. Do not expose containers to open flame, excessive heat, or direct sunlight. Use explosion proof equipment. Ground and bond containers when transferring material. Use spark-proof tools. Use local exhaust over processing area. Do not eat, drink or smoke around products.
Recommendations on the conditions for safe storage, Storage/handling incompatibilities.

Store in a cool, dry and ventilated area away from sources of heat, moisture and incompatible materials(oxidizing materials). Observe all warnings and precautions listed for the product. Keep container tightly closed and sealed to prevent contamination. Keep upright to prevent leakage. Keep containers ground and bond.

Section 8 – Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs) Not Applicable
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values ACGIH TLV: 200ppm (262 mg/m3) TWA
Other Exposure Limits OSHA: Table Z-1 Limits for Air Contaminants - 1910.1000: 200ppm (260 mg/m3)
Engineering Control Use mechanical explosion-proof ventilation to control airborne levels below exposure guidelines. Eye washes and showers for emergency use.
Individual Protection Measures Wear protective safety glasses or goggles, gloves, apron, vapor respirator.

Section 9 – Physical and Chemical and Chemical Properties

Appearance (physical state, color, etc.) Liquid, Blue, Clear
Upper/lower flammability or explosive limits 200 ppm (260 mg/m3) TWA
Odor Alcohol odor
Vapor pressure 130.3 hPa/ 97.7 mmHg
Odor threshold No data available
Vapor density 1.11
pH Not Applicable
Relative density 0.790-0.840
Freezing point (as 50%) -165°F/-73.88°C
Solubility(ies) Miscible in water
Initial boiling point and boiling range 148.5°F/64.7°C
Flash point 51.8°F/ 11 °C (Closed Cap)
Evaporation rate 4.6
Flammability (solid, gas) Flammable
Partition coefficient: n-octanol/water Log Pow: -0.77
Auto-ignition temperature 851.0 °F/ 455.0 °C
Decomposition temperature; and Not Applicable
Viscosity 0.59 cP 68 °C

Section 10 – Stability and Reactivity

Reactivity Product is stable under typical use temperatures.
Chemical Stability Product is stable under normal temperature and pressures.
Hazardous Reactions Avoid contact with oxidizing materials, strong bases, alkali metals, ammonia and peroxides.
Conditions to Avoid Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation of material or combustion by-products. Keep out of water supplies and sewers. Do not store at elevated temperatures.
Incompatible Materials Avoid contact with oxidizing materials, strong bases, alkali metals, ammonia and peroxides.
Decomposition Products Carbon dioxide and carbon monoxide may form when heated to decomposition.

Section 11 – Toxicological Information

Likely Routes of Exposure Eyes / Skin / Ingestion / Inhalation

<table>
<thead>
<tr>
<th>Effects from Short Term Exposure</th>
<th>Effects from Long Term Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed Effects</td>
<td>Irritation of affected area</td>
</tr>
<tr>
<td>Immediate Effects</td>
<td>Irritation of affected area</td>
</tr>
<tr>
<td>Chronic Effects</td>
<td>Irritation of affected area</td>
</tr>
</tbody>
</table>

The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose. Ingestion: Oral LD50 - Human - 143mg/kg, Dermal - Rabbit - 17,100 mg/kg, Inhalation- Rat - 6 h - 87.6 mg/l, Lethal Dose Human Adult is 1mg/kg of body weight.
Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.

Central nervous system depression, narcosis, visual impairment, damage to the kidney, damage to the liver, irritation of affected area, cyanosis of extremities, nausea, acidosis, headache, dizziness, collapse, unconsciousness, vomiting, and death due to respiratory failure.

<table>
<thead>
<tr>
<th>Listed in the National Toxicology Program (NTP) Report on Carcinogens</th>
<th>Not listed.</th>
<th>Found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs</th>
<th>Not listed.</th>
<th>Found to be a potential carcinogen by OSHA</th>
<th>Not listed.</th>
</tr>
</thead>
</table>

**Section 12 – Ecological Information**

| Ecotoxicity | Low Ecotoxicity |
| Persistence and Degradability | Readily biodegradable |
| Bioaccumulation | Not expected, does not bioaccumulate significantly |
| Mobility in Soil | Dissolves in water. If product enters soil, it will be highly mobile and may contaminate ground water |
| Other Adverse Effects | No Data Available |

**Section 13 – Disposal Considerations**

Do not dump into sewers, on ground or into any bodies of water. Contact local sewer, municipal, state and/or federal agencies to determine appropriate disposal options

**Section 14 – Transport Information**

Is product DOT regulated in Non-Bulk packaging? Yes

**DOT BULK**

| UN number | UN1230 |
| UN proper shipping name | Methanol Solution |
| Transport hazard class(es) | 3 (6.1) |
| Packing group number | II |
| Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)) | No |
| Guidance on transport in bulk (according to Annex II of MARPOL 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code))) | Yes |
| 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 premises | Reportable Quantity (RQ): 5000 lbs Methanol |

**Section 15 – Regulatory Information (Not indicated anywhere else on this SDS)**

| Health Regulations | Not Available |
| Environmental Regulations | Not Available |
| SARA 311/312 | Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312 |
| HMIS | Blue/Health 2 Red/Flammability 3 Orange/Physical Hazard 0 White/Personal Protection X |

Superfund Amendments and Reauthorization Act of 1986 Title III (SARA) Sections 311 and 312 (40 CFR 370 Subparts B and C): Immediate (Acute) Health Hazard- Yes; Chronic Health- Yes; Fire Hazard - Yes; Reactive Hazard - No; Sudden Release of Pressure Hazard - No. Section 313: Product does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established.
### NFPA 0(no hazard) to 4(severe risk)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health (Blue)</td>
<td>1</td>
</tr>
<tr>
<td>Flammability (Red)</td>
<td>3</td>
</tr>
<tr>
<td>Instability/Reactivity (Yellow)</td>
<td>N/A</td>
</tr>
<tr>
<td>Special (White)</td>
<td>0</td>
</tr>
</tbody>
</table>

### 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.

### Product Dilutions Differentials

<table>
<thead>
<tr>
<th>Properties</th>
<th>72%</th>
<th>37%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windshield Washer Concentrate</td>
<td>72%</td>
<td>37%</td>
</tr>
<tr>
<td>Performance Additives and Water</td>
<td>28%</td>
<td>63%</td>
</tr>
<tr>
<td>Specific Gravity (15/15°C 60/60°F)</td>
<td>0.860-0.890</td>
<td>0.940-0.956</td>
</tr>
</tbody>
</table>

Revision Date: 6/15/2018