Houghton Chemical Corporation

Safety Data Sheet

Windshield Washer Concentrate

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

Chemical Name	Common name and synonyms	CAS #	% by weight
Methanol	Methyl Alcohol	67-56-1	93%
Water	N/A	7732-18-5	6%
Additives & dye	N/A	Proprietary	1%

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 heart, 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	Water Jet, Water Stream.
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

	Effects from Short Term Exposure	Effects from Long Term Exposure
Delayed Effects	Irritation of affected area	Irritation of affected area
Immediate Effects	Irritation of affected area	Irritation of affected area
Chronic Effects	Irritation of affected area	cause headaches and eye irritation
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, Inhalatio- 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.

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

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)

Safety Regulations	OSHA Hazard Communication Standard: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Flammable liquid, Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption.	
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	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.
HMIS	Blue/Health	2
	Red/Flammability	3
	Orange/Physical Hazard	0
	White/Personal Protection	X

NFPA 0(no hazard) to 4(severe risk)	Health (Blue)	1
	Flammability (Red)	3
	Instability/Reactivity (Yellow)	N/A
	Special (White)	0

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

Properties	**72%**	**37%**
Windshield Washer Concentrate	72%	37%
Performance Additives and Water	28%	63%
Specific Gravity (15/15°C 60/60°F)	0.860-0.890	0.940-0.956

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