

Houghton Chemical Corporation

Safety Data Sheet



Pah|nol® Extended Life Antifreeze

| 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 | Antifreeze/Inhibited Ethylene Glycol | | |
| Chemical Family | Ethylene Glycol Mixture | | |
| Recommended Use | Antifreeze Fluid | | |
| Restrictions on Use | Dilution to 50% is generally recommended: dilute to meet local condition. | | |
| Section 2 – Hazard(s) Identification | | | |
| Hazard Classification | Acute Toxicity, Oral: Category 4 Skin Corrosion / Irritation: Category 2 Toxic to Reproduction: Category 2 Specific Target Organ Toxicity (Single Exposure): Category 1 Specific Target Organ Toxicity (Repeated Exposure): Category 2 | | |
| Signal Word | Danger | | |
| Hazard Statement | Harmful If Swallowed. Causes skin irritation. Suspected of damaging fertility of the unborn child. Causes damage to central nervous system and kidneys if swallowed. May cause damage to kidneys through prolonged or repeated exposure if swallowed. | | |
| Pictogram Description | Health Hazard & Exclamation Point | | |
| Precautionary Statement | Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands and any other contaminated skin after handling. Do not eat, drink or smoke when using this product. Wear eye protection (splash goggles, full face shield), protective gloves and protective clothing (chemically impervious). Do not breathe fumes, vapors, mist, or spray. Response: If swallowed: Call a poison 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 wash it before reuse. If exposed or concerned: Call a poison center. Get medical advice. 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 classified | Not Applicable | | |
| Section 3 – Composition and Information on Ingredients | | | |
| Chemical Name | Common name and synonyms | CAS # | % by weight |
| Ethylene Glycol | Monoethylene Glycol | 107-21-1 | 93% |
| Water | N/A | 7732-18-5 | 3.5% |
| Inhibitors & Dye | N/A | Proprietary | 3.5% |
| Section 4 – First aid Measures | | | |
| Symptoms of Exposure | | | |
| Acute | Irritation of affected area with symptoms of reddening, itching, swelling, burning, possible permanent damage, nausea, vomiting, weakness, and death | | |

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| Delayed | Irritation of affected area with symptoms of reddening, itching, swelling, burning, possible permanent damage, nausea, vomiting, weakness, abdominal pain, muscle tenderness, respiratory failure, severe metabolic acidosis, hypocalcemia and death |
| Inhalation | Vapors and mists cause respiratory irritation and may be harmful if inhaled. |
| Skin | Irritation may result. May be harmful if absorbed through skin. |
| Eye Contact | Irritation may cause transitory stinging and tearing. |
| Ingestion | Toxic: may be harmful or fatal if swallowed. |
| 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 soap and water for at least 20 minutes. Remove any contaminated clothing. Seek medical attention immediately if symptoms or irritation develops. |
| Eye Contact | Flush with water for at least 20 minutes. Seek medical attention if irritation develops or persists. |
| Ingestion | DO NOT induce vomiting, seek medical attention immediately. If swallowed give 2 to 3 glasses of water if victim is conscious and alert. 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 | Water, water fog, water spray, alcohol-resistant foam, dry chemical, sand, or carbon dioxide. |
| Unsuitable Extinguishing Material | No Data Available |
| Hazards from Combustion | Smoke may contain the original material in addition to but not limited to: Carbon Monoxide, Carbon Dioxide. |
| 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. | Usage 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 | Collect liquid in an appropriate container or absorb with inert material and place in chemical waste container. |
| 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 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 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. |
| 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: 100 mg/m ³ |
| Other Exposure Limits | OSHA - Table Z-1 Limits for air contaminants - 1910.1000: 50 ppm 125 mg/m ³ . |
| Engineering Control | Use mechanical (general) ventilation to control airborne levels below exposure guidelines. |

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| 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, Clear, Orange | | | | |
| Upper/lower flammability or explosive limits | Not Explosive; LOWER: 3.2% (v) UPPER: 15.3% (v) | | | | |
| Odor | Slight to no odor | | | | |
| Vapor pressure | 134 Pa / 0.1 mmHg | | | | |
| Odor threshold | No data available | | | | |
| Vapor density (air = 1) | 2.14 | | | | |
| pH | 7.5 - 9.0 | | | | |
| Relative density | 1.120 - 1.140 | | | | |
| Freezing point (as 50%) | -34°F / -37°C | | | | |
| Solubility(ies) | Miscible in water | | | | |
| Initial boiling point and boiling range | 385°F / 196°C | | | | |
| Flash point | 232°F / 111°C | | | | |
| Evaporation rate (Butyl Acetate = 1) | <1 | | | | |
| Flammability (solid, gas) | This material is Not Flammable but can burn if heated | | | | |
| Partition coefficient: n-octanol/water | Log Pow: -1.36 | | | | |
| Auto-ignition temperature | > 700°F / > 370°C | | | | |
| Decomposition temperature; and | Not Applicable | | | | |
| Viscosity | ~16 cps at 60°F | | | | |
| Section 10 – Stability and Reactivity | | | | | |
| Reactivity | Product is stable under typical use temperatures. | | | | |
| Chemical Stability | Product is stable under typical use temperatures. | | | | |
| Hazardous Reactions | Avoid contact with oxidizing materials strong bases and strong acids. | | | | |
| Conditions to Avoid | Heat, flames, ignition sources and incompatibles. | | | | |
| Incompatible Materials | Avoid contact with oxidizing agents, strong bases and strong acids. | | | | |
| 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 | Not Applicable | | Teratogenic effects | | |
| 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. | | | Skin: LD50 - Rabbits - >10600 mg/kg Ingestion: LD50 - Rats - 7712 mg/kg; Lethal Dose Human Adult - 90mL | | |
| 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. | | | Irritation, nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, metabolic acidosis, death. | | |
| Listed in the National Toxicology Program (NTP) Report on Carcinogens? | No | Found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs? | No | Found to be a potential carcinogen by OSHA? | No |
| Section 12 – Ecological Information | | | | | |
| Ecotoxicity | Low Ecotoxicity | | | | |
| Persistence and Degradability | Biodegradable | | | | |
| Bioaccumulation | Does not bioaccumulate significantly | | | | |
| Mobility in Soil | Dissolves in water. If product enters soil, it will be highly mobile and may contaminate ground water | | | | |

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| 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? | No | |
| DOT BULK | | |
| UN number | UN3082 | |
| UN proper shipping name | Environmentally hazardous substances, liquid, n.o.s. | |
| Transport hazard class(es) | 9 | |
| Packing group number | III | |
| Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)) | Not Regulated | |
| 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)) | Not Regulated | |
| 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 Ethylene Glycol | |
| 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. | |
| 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: 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 in 40 CFR 372 - Component: Ethylene Glycol CAS#: 107-21-1 Amount: >=99.0%. |
| HMIS | Blue/Health | 2 |
| | Red/Flammability | 1 |
| | Orange/Physical Hazard | 0 |
| | White/Personal Protection | x |
| NFPA 0 (no hazard) to 4 (severe risk) | Health (Blue) | 2 |
| | Flammability (Red) | 1 |
| | Instability/Reactivity (Yellow) | N/A |
| | Special (White) | 0 |
| US Toxic Substance Control Act | Components of this product listed in the February 2019 TSCA Inventory update are designated as ACTIVE or are exempt from 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. | | |

| Product Dilutions Differentials | | | | | | |
|---|------------|---------------|------------|------------|------------|------------|
| Properties¹ | 60% | 50% | 40% | 35% | 30% | 25% |
| Pah nol® Extended Life Antifreeze | | 46% | | | | |
| Performance Additives and Water | | 54% | | | | |
| Specific Gravity (15/15°C 60/60°F) | | 1.060 - 1.090 | | | | |
| Reserve Alkalinity (minimum) | | 1 | | | | |
| Freeze Point (maximum) | | -34°F / -37°C | | | | |
| ¹ Data for the concentrate is based on volume of Ethylene Glycol; data for mixtures is based on volume of Pah nol® Extended Life Antifreeze. | | | | | | |
| Revision Date: 7/18/2019 | | | | | | |