

# Houghton Chemical Corporation

## Safety Data Sheet

### PAH|NOL® ISO-PREME GAS LINE A/F



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	<b>CHEMTREC: 1-800-424-9300</b>		
Chemical Name & Synonyms	ISOPROPANOL, anhydrous		
Chemical Family	ALCOHOL		
Recommended Use	Fuel line antifreeze		
Restrictions on Use	Not to exceed 4% ratio of product to fuel.		
Section 2 – Hazard(s) Identification			
Hazard Classification	Flammable Liquid and vapor. Causes eye irritation. Inhalation may cause drowsiness or dizziness. May be harmful if swallowed. Aspiration hazard. Can enter lungs and cause damage. Vapor explosion hazard. Vapors may travel a long distance; Ignition and/or flashback may occur. Isolate area. Keep upwind of spill. Stay out of low areas. Warn public of downwind explosion hazard. Eliminate ignition sources..		
Signal Word	DANGER		
Hazard Statement	Highly Flammable Liquid. Causes serious eye irritation. May cause dizziness or drowsiness.		
Pictogram Description	GHS: Flame, Exclamation Point		
Precautionary Statement	Keep away from heat, sparks, open flames and hot surfaces. Keep container tightly closed. Static ground and bond container and receiving equipment. Use explosion-proof electrical ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing fumes, gas, mist, vapors or spray.		
Any other Hazard not otherwise classified	May form explosive peroxides.		
Section 3 – Composition and Information on Ingredients			
Chemical Name	Common name and synonyms	CAS #	% by weight
2-Propanol	Isopropyl Alcohol	67-63-0	99-100%
N/A		N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
Section 4 – First aid Measures			
Symptoms of Exposure			
Acute	May cause drowsiness or Dizziness. May cause serious eye irritation.		
Delayed	Central nervous system depression. Nausea, headache, vomiting, narcosis, drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to lung oedema or pneumonia.		
Inhalation	Inhalation may cause headaches, drowsiness or dizziness.		
Skin	May cause skin irritation.		
Eye Contact	May cause eye irritation.		
Ingestion	May be harmful if swallowed. Can cause nausea, headache, vomiting, narcosis and liver effects.		
First Aid Instructions			
Inhalation	If inhaled, remove victim to fresh air and keep in a position comfortable for breathing.		
Skin	Remove all contaminated clothing immediately. Rinse skin with water or shower.		
Eye Contact	Rinse cautiously with water for several minutes. Remove contacts if present, and easy to do. Continue rinsing. If eye irritation persists, get medical advice or attention.		
Ingestion	If ingested, call a POISON CENTER or doctor.		
Other	N/A		

<b>Section 5 – Fire Fighting Measures</b>	
Suitable Extinguishing Material	Use water spray , alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Material	No data available.
Hazards from Combustion	No data available.
Special Protective Equipment for Firefighters	Wear self contained breathing apparatus if necessary.
<b>Section 6 – Accidental Release Measures</b>	
Use of personal precautions	For spills, use PPE listed above. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate all personnel to safe areas. Be aware that vapors can accumulate to form explosive concentrations.
Protective equipment to prevent the contamination of skin, eyes, and clothing.	Use personal protective equipment for spills. Use a face shield or safety glasses for eye protection. Use Nitrile rubber gloves (or equivalent) with thickness dependent on the degree of contact or task.
Methods and materials used for containment	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing, then place in container for disposal according to local regulations.
Cleanup procedures	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<b>Section 7 – Handling and Storage</b>	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.
Recommendations on the conditions for safe storage, Storage/handling incompatibilities.	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.
<b>Section 8 – Exposure Controls/Personal Protection</b>	
OSHA Permissible Exposure Limits (PELs)	Not Applicable
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values	ACGIH TLV: 200 ppm
Other Exposure Limits	OSHA - Table Z-1 limits for air contaminants - 1910.1000: 400 ppm, 980 mg/m <sup>3</sup>
Engineering Control	Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.
Individual Protection Measures	Use personal protective equipment for spills. Use a face shield or safety glasses for eye protection. Use Nitrile rubber gloves (or equivalent) with thickness dependent on the degree of contact or task.
<b>Section 9 – Physical and Chemical and Chemical Properties</b>	
Appearance (physical state, color, etc.)	Form: liquid      Color: colorless
Upper/lower flammability or explosive limits	Lower limit is 2 (vol) %. Upper limit is 12 (vol) %.
Odor	Odor: Alcohol-like
Vapor pressure	32.4 mm Hg at 20 °C (68 °F) 44.0 mm Hg at 25 °C (77°F)
Odor threshold	No data available.
Vapor density (air = 1)	2.1
pH	No data available.
Relative density	0.785 @ 25.0°C (77.0°F)
Freezing point (as 50%)	Melting point is -89.5 °C or -129.1 °F
Solubility(ies)	Completely soluble in water.
Initial boiling point and boiling range	82°C (180°F)
Flash point	12°C (53.6°F)
Evaporation rate (Butyl Acetate = 1)	3
Flammability (solid, gas)	Flammable liquid, Category 2, H225.
Partition coefficient: n-octanol/water	log Pow: 0.05
Auto-ignition temperature	399 °C (750°F)
Decomposition temperature; and	no data available
Viscosity	no data available

<b>Section 10 – Stability and Reactivity</b>					
Reactivity	No data available				
Chemical Stability	Thermally stable at typical use temperatures.				
Hazardous Reactions	Vapors may form explosive mixture with air.				
Conditions to Avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.				
Incompatible Materials	Oxidizing agents, Acid anhydrides, Aldehydes, Aluminum, Halogenated compounds, Acids.				
Decomposition Products	No data available.				
<b>Section 11 – Toxicological Information</b>					
Likely Routes of Exposure			Inhalation, Skin, Eyes, Ingestion.		
	<b>Effects from Short Term Exposure</b>		<b>Effects from Long Term Exposure</b>		
Delayed Effects	Central nervous system depression, Nausea, Headaches, Vomiting, Narcosis, mild reversible liver effects. Aspiration may lead to lung oedema and Pneumonia.		Central nervous system depression, Nausea, Headaches, Vomiting, Narcosis, mild reversible liver effects. Aspiration may lead to lung oedema and Pneumonia.		
Immediate Effects	Irritation to affected skin, eyes. Dizziness, drowsiness.		N/A		
Chronic Effects	Central nervous system depression, Nausea, Headaches, Vomiting, Narcosis, mild reversible liver effects. Aspiration may lead to lung oedema and Pneumonia.		N/A		
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.			LD50 Oral - rat - 5,045 mg/kg		
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, Nausea, Headaches, Vomiting, Narcosis, mild reversible liver effects. Aspiration may lead to lung oedema and Pneumonia.		
<b>Listed in the National Toxicology Program (NTP) Report on Carcinogens?</b>	No component of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by NTP.	<b>Found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs?</b>	No component of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by IARC.	<b>Found to be a potential carcinogen by OSHA?</b>	No component of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by OSHA.
<b>Section 12 – Ecological Information</b>					
Ecotoxicity	Toxicity to fish, LC50-fathead minnow- 9640 mg/L- 96 hrs. Toxicity to daphnia and other aquatic invertebrates - EC50-Daphnia magna (water flea)-5102 mg/L - 24 hr. Toxicity to Algae- EC50-Algae- >1000 mg/L-24 hr.				
Persistence and Degradability	Material is readily biodegradable.				
Bioaccumulation	No bioaccumulation is to be expected.				
Mobility in Soil	No data available.				
Other Adverse Effects	No data available.				
<b>Section 13 – Disposal Considerations</b>					
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					
<b>Section 14 – Transport Information</b>					
Is product DOT regulated in Non-Bulk packaging?				Yes	
<b>DOT BULK</b>					
UN number				UN1219	

UN proper shipping name	Isopropanol
Transport hazard class(es)	Class 3
Packing group number	Packing Group II.
Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code))	No significant hazards.
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)))	According to Annex II or Marpool 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk IBC Code).
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 Isopropanol.

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

Safety Regulations	SARA 302 - No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.	
Health Regulations	Acute and chronic health hazard.	
Environmental Regulations	No significant hazards.	
SARA 311/312	Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312	SARA 311/312 Hazards - Fire hazard, Acute Health Hazard, Chronic Health Hazard
HMIS	Blue/Health	2
	Red/Flammability	3
	Orange/Physical Hazard	0 (Minimal hazard.)
	White/Personal Protection	N/A
NFPA 0(no hazard) to 4(severe risk)	Health (Blue)	2
	Flammability (Red)	3
	Instability/Reactivity (Yellow)	0
	Special (White)	N/A
US Toxic Substance Control Act	All components of this product are on the TSCA Inventory or are exempt from those requirements under 40 CFR 720.30	
CEPA – Domestic Substances List (DSL)	All substances contained in this material are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.	

### Section 16 – Other Information

N/A

#### Product Dilutions Differentials

Properties <sup>1</sup>	60%	50%	40%	35%	30%	25%
PAH NOL® ISO-PREME GAS LINE A/F						
Performance Additives and Water						
Specific Gravity (15/15°C 60/60°F)						
Reserve Alkalinity (min)						
Freeze Point Max		Melting point is -89.5 °C or -129.1 °F				

Revision Date: July 23, 2015