HALL CHEM MFG. INC.

1270 rue Nobel Tel. : (450) 645-0296 Boucherville Qc J4B 5H1 Fax : (450) 645-0444

MATERIAL SAFETY DATA SHEET

EMERGENCY: CANUTEC (613) 996-6666

MSDS: 330-2A

PRODUCT IDENTIFICATION AND USE

NAME OF PRODUCT: PROPYLENE GLYCOL 50/50 USE OF PRODUCT: Winterizing no toxic antifreeze

TRANSPORTATION OF DANGEROUS GOODS

SHIPPING NAME: WHMIS CLASSIFICATION: NOT REGULATED

P.N.I.: PRIMARY CLASS: No toxic PACKING GROUP: SUBSIDIARY CLASS:

COMPONENTS

COMPOSITION	% V/V	CASE #	LD ₅₀ mg/kg Oral/rat	LC ₅₀	TLV ppm 8h
Propylene glycol	2 to 27	57-55-6	20 000-34 000		
Rust inhibitors					

PHYSICAL CARACTERISTICS

PHYSICAL STATE:	APPEARANCE:	ODOR:	ODORTRESHOLD:		
Liquid	Pink	Odorless	Not available		
VAPOR TENSION :	VAPOR DENSITY:	EVAPORATING RATE:			
Not available	Not available	Not available			
BOILING RANGE : 102°C (215°F)	PROTECTION: -51°C	pH: Not available			
DENSITY (20°C):	DISTRIBUTION FACTOR	TION FACTOR SOLUBILITY I			
1,03	WATER/OIL: Not available	100%			
REACTIVITY DATA					

CHEMICAL STABILITY: Stable under normal conditions to avoid.

INCOMPATIBILITY WITH OTHER PRODUCTS: Avoid oxidizing material.

REACTIVITY CONDITIONS: No hazardous polymerization

EXPLOSION AND FIRE RISKS



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EXTINGUISHING METHODS: Water fog, alcohol foam, carbon dioxide, dry chemical. Do not use a continuous stream of water because this will be propagate fire.

FLASH POINT: >103°C (218°F) AUTO-IGNITION TEMPS.: Not available

FLAMMABILITY (% per volume)

SUPERIOR LIMIT: 12,5 LOWER LIMIT: 2,6

HAZARDOUS COMBUSTION PRODUCT: When available oxygen id limited, as in a fire or when heated to very high temperatures by hot wire or plate, propionaldehyde, carbon monoxide, hazardous compounds such as aldehydes, toxic gas and not identified toxic or irritating compounds or the both might be generated.

EXPLOSIBILITY DATA: Not available

TOXICOLOGICAL PROPERTIES

ABSORPTIO	N WAYS	CONTACT
SKIN √	INHALATION √ I	NGESTION $\sqrt{}$ WITH SKIN $\sqrt{}$ EYES $\sqrt{}$

EFFECTS OF EXPOSURE TO PRODUCT: Product can irritate mucus glands. High doses can provoke headaches, drowsiness, nausea, dizziness and fainting. Inhalation may aggravate cases of emphysema and bronchitis. Repeated contact with skin provokes irritations, dryness of the skin and cracking of the skin.

PREVENTIVE MEASURES

PROTECTIVE EQUIPMENT: Gloves, security glasses and protective apron.

GLOVES: Impervious

RESPIRATORY SYSTEM: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In misty atmospheres, use an approved mist respirator.

OCULAR INSTRUMENT: Security glasses

CLOTHING: No precautions other than clean body-covering clothing should be needed.

TECHNICAL CONTROL: At elevated temperatures, special ventilation may be required even of the flash point has not been exceeded. Flammable mists or aerosols can be generated below the flash point of high boiling liquids. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

PROCEDURE IN CASE OF LEAKS/SPILLS: Spill may contaminate water supplies or pollute public waters. Evacuate and limit access to area. Supply cleanup crew with proper protective equipment. Stop release and prevent flow to sewers or public waters. Notify fire and environmental authorities. Restrict water use for cleanup. This material can create a dangerous slipping hazard on any hard surface. Spread a granular cover (such as sand) or provide open grating on walkways. Impound and recover large land spill. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Degradation is expected in the atmospheric environment within minutes to hours. Contain and minimize dispersion; collect and contain in suitable disposal containers.

WASTE DISPOSAL: Contaminated product, soil, water is potentially combustible. Solids may be landfilled at permitted sites in compliance with federal, provincial, local solid waste regulations. Burn concentrated liquid waste.



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Avoid flameouts and assure emissions comply with regulations. Dilute aqueous wastes may be biodegradable. Avoid overloading and poisoning plant biomass. Effluent must comply with applicable regulations.

STORAGE AND HANDLING: This product will absorb water if exposed to air (hygroscopic). Store in tightly closed containers away from heat, moisture or strong oxidizing agents. Use dry nitrogen to low dew point air for tank padding. Do not heat higher than 10°C below flash point unless in a closed system away from air. Do not handle near heat, sparks or open flame.

FIRST AID

SKIN: Wash off in flowing water or shower. Wash clothing before re-use. See a doctor if

irritation develops or persists.

EYES: Remove contact lenses. Wash with running water for 29 to 30 minutes; lift eyelids often.

See a doctor if redness, pain or blinking develops or persists.

INHALATION: Remove to fresh air if effects occur. Give oxygen of artificial respiration as needed.

Obtain emergency medical attention. Prompt action is essential.

INGESTION: If a large quantity is swallowed, induce vomiting. Do not give by mouth to an

unconscious person. Seek medical attention.

NOTES TO PHYSICIAN: No specific antidote. Supporting care, treatment based on judgement of the physician on response to reactions of the patient.

INFORMATION ON THE M.S.D.S. PREPARATION

PREPARED BY: TELEPHONE: (450) 645-0296 REVISED January 2015

Hall Chem Mfg. Inc.

NOTE:

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