

Vulsay Industries Ltd.
MATERIAL SAFETY DATA SHEET
FLO-PERM "Propylene Glycol" Plumbing ANTI-FREEZE -46 BP

REVISION DATE: Sept 24, 2014

MATERIAL NAME IDENTIFIER: Flo-perm RV PG Based Anti-freeze/Coolant -46 Burst Protection

SUPPLIER: Vulsay Industries Ltd.

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PART #: 92213, 92218, 92214

PREPARATION INFORMATION

SOURCES USED: Technical references and MSDS on raw materials

PREPARED BY: Quality Control Dept.

PHONE #: (905) 846 2200

BRIEF NOTE ON REVISION: Fire and explosion section revised

INGREDIENTS

MATERIAL	CAS#	Volume %	LD50	PEL VAPOR
Propylene Glycol	57-55-6	20 - 30	Oral rat 20000 mg/kg	Not Established

PHYSICAL DATA

APPEARANCE: Pink

BOILING POINT: 102 (deg C)

VAPOUR PRESSURE (mm HG): <0.1

FREEZING POINT: -10 (Deg C)

EVAPORATION RATE (n-butyl acetate 1): N/A

ODOUR: Slightly viscous, almost odorless liquid

SPECIFIC GRAVITY (Water = 1): 1.04

VAPOR DENSITY (air= 1): Not Available

WATER SOLUBILITY: Complete

MELTING POINT (deg F): Not Applicable

FIRE AND EXPLOSION HAZARDS

FLASH POINT: (deg C):None **FLAMMABLE LIMITS** (approximate % by volume in air): Not Applicable

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, alcohol type foam, water spray, water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear positive pressure, self-contained breathing apparatus and other protective apparatus as warranted. Fight fire from distance or protected location - heat may build up pressure and rupture closed containers.

Liquid may form slippery film. Use water spray or fog for cooling, solid stream may spread fire as burning liquid will float on water. Avoid frothing/steam explosion. Notify appropriate authorities if liquid enters sewers/public waters.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat from fire can generate flammable vapor.

REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: None known

MATERIALS TO AVOID: Strong alkalis, strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide and other toxic vapors.

HAZARDOUS POLYMERIZATION: Not expected to occur.

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TOXICOLOGICAL PROPERTIES

SKIN: The LD50 for skin absorption in rabbits is > 10,000 mg/kg.

INGESTION: The oral LD50 for rats is 20,000-34,000 mg/kg.

MUTAGENICITY: In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

ROUTES OF EXPOSURE: Eye Contact, Skin Contact, Inhalation, Ingestion, Signs and Symptoms of Overdose

EYE: May cause minor eye irritation.

SKIN: No significant adverse effects are expected under anticipated conditions of normal use. Repeated, prolonged exposure may cause slight flaking, tenderness, and softening of skin.

INHALATION: No significant adverse effects are expected under anticipated conditions of normal use. If effects do occur, refer to FIRST AID section.

INGESTION: No significant adverse effects are expected under anticipated conditions of normal use. Excessive ingestion may cause central nervous system effects.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Same as above.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Material and/or its emissions may aggravate preexisting eye disease.

PREVENTATIVE MEASURES

RESPIRATORY: No special respiratory protection equipment is recommended under normal conditions of anticipated use with adequate ventilation.

VENTILATION: Adequate general ventilation is required, local exhaust is recommended if possible.

PROTECTIVE GLOVES: Not required.

EYE PROTECTION: Chemical splash goggles or full face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.

WORK PRACTICES: Keep containers closed when not in use.

PERSONAL HYGIENE: If product handling results in skin contact, wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse.

FIRST AID MEASURES

EYES: Immediately rinse eyes with clean water for 20-30 minutes. Retract eyelids often. Obtain medical attention if pain, blinking, tears or redness persists.

SKIN: Product is not expected to present a significant skin hazard under anticipated conditions of normal use.

INHALATION: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

INGESTION: If large quantity is swallowed, give a pint of luke warm water if victim is completely conscious and alert. If large quantities are consumed, induce vomiting. Obtain emergency medical attention.

ADDITIONAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent entry into sewers or waterways. Contain spill with dike. Clean up with absorbent. Do not flush to sewers, on the ground or into any body water. Disposal must comply with all federal, provincial and local laws and regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in tightly closed and properly vented containers, away from heat, sparks, open flame, and strong oxidizing agents.

TRANSPORT INFORMATION: This product is not regulated by DOT.

WHMIS: Not controlled

NOTE: The recommendations and data presented herein are believed to be correct. However, no warranty is expressed or implied regarding the accuracy of the data or the results obtained from the use of this information or the use of product.