

Vulsay Industries Ltd.
MATERIAL SAFETY DATA SHEET
FLO-PERM 'PG' ANTI-FREEZE/COOLANT

REVISION DATE: March 05, 2017

I PRODUCT INFORMATION

MATERIAL NAME IDENTIFIER: Flo-perm PG Anti-freeze/Coolant

Part #: 90363

SUPPLIER: Vulsay Industries Ltd.

ADDRESS: 35 Regan Road, Brampton, Ontario, L7A 1B2

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24 hours EMERGENCY Phone # - Call CANUTEC at (613) 996 6666

II PREPARATION INFORMATION

SOURCES USED: Technical references and MSDS on raw materials

PREPARED BY: Quality Control Dept.

PHONE #: (905) 846 2200

DATE OF PREPARATION: November 1, 2008

REVISION #: 3

BRIEF NOTE ON REVISION: Reprint

III INGREDIENTS

INGREDIENT	VOLUME (%)	CAS #	LD50	LC50
Propylene Glycol	>95	75-55-6	20 gm/kg (rat- Oral)	Not determined
Sodium Nitrite	<0.44	7632-00-0	180 mg/kg (rat - Oral)	5500 µg/m3 Inhalation - rat
Potassium Hydroxide (45%)	<0.33	1310-58-3	273 mg/kg (rat - Oral)	Not available
Inhibitors	<0.2	Mixture	Not applicable	Not applicable
Dye (generally green)	<0.02	Mixture	Not applicable	Not applicable

IV PHYSICAL DATA

APPEARANCE: Green

BOILING POINT: 185 (deg C)

VAPOUR PRESSURE (mm HG): <0.1

FREEZING POINT: Product will not freeze

EVAPORATION RATE (n-butyl acetate 1): Slight

ODOUR: Slightly viscous with glycol odour

SPECIFIC GRAVITY (Water = 1): 1.04

VAPOR DENSITY (air= 1): 2.6

WATER SOLUBILITY: Complete

MELTING POINT (deg F): Not Applicable

V FIRE AND EXPLOSION HAZARDS

FLASH POINT: (deg C): 99 Closed cup FLAMMABLE LIMITS (approximate % by volume in air): LEL: 2.4, UEL: 17.4

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.

VI REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Heat, sparks, open flame.

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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VII TOXICOLOGICAL PROPERTIES

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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.

VIII 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.

IX 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.

X 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

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