Safety Data Sheet – GHS

StaFrost 40%

Date of Revision: March 15, 2022

Section 1 - Chemical Product and Company Identification

Product Name	StaFrost 40%
Synonyms	StaCool SRP-40
Product Use	Industrial Heat Transfer Fluid – Propylene Glycol Base
Restrictions On Use	Not Applicable
Supplier	CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6
General Assistance	1 (877) 269-3419
Emergency Telephone	**Not Dangerous Goods – Call General Assistance**
Date of Preparation of SDS	**April 1, 2017**

Section 2 – Hazard Identification

Signal Word	Warning
GHS Pictogram(s)	
Hazard Statement:	
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary Statement	
Prevention	
No Statements.	
Response	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	
No Statements.	
Disposal	
P501	Dispose of contents/container to an approved waste disposal unit.

GHS Classification None

HMIS Classification

Health Hazard	**0**
Chronic Health Hazard	*****
Flammability	**1**
Physical Hazards	**0**

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT, Common Name	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Propylene Glycol	Propylene glycol; 1,2-Propanediol;	40%	57-55-6

	Propane-1,2-diol; PG		
Water	Aqua	56 – 58%	7732-18-5
Potassium hydroxide	Caustic Potash, Lye	0.5 – 1%	1310-5-3
Phosphoric acid, 75%, aqueous solution	Orthophosphoric Acid	0.5 – 1%	7664-38-2
Boric Acid	Hydrogen Borate, Boracic acid, orthoboric acid	0 – 0.2%	10043-35-3
Sodium 4(or 5)-methyl-1H-benzotriazolide	Not Applicable	0 – 0.10%	64665-57-2
Polydimethylsiloxane	Not Applicable	0 – 0.02%	63147-62-9
Silica filled polydimethylsiloxane	Not Applicable	0 – 0.01%	67762-90-7
Sucrose distearate	Not Applicable	0 – 0.01%	27915-16-0

* = Various ** = Mixture *** = Proprietary

Section 4 - First Aid Measures

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off with plenty of water. Consult a physician.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms/Effects both Acute and Delayed

Not expected to present a significant hazard under anticipated conditions of normal use.

Note to Physician No specific antidote. Treatment of exposure should be directed at the control of the symptoms and the clinical condition of the patient.

Section 5 – Fire-Fighting Measures

Flash Point (°C) Not Flammable

Flash Point Method PMCC

Auto Ignition Temperature 415°C

Conditions of Flammability Not flammable or combustible.

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media Water jet.

Unusual Fire/ Explosion Hazard No data available.

Hazardous Combustion Products Carbon oxides.

Fire Fighting Equipment	Wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.
Special Precautions for Firefighters	Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6 – Accidental Release Measures

Personal precautions	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapour can accumulate in low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7 – Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Conditions for safe storage	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. Hygroscopic.
Incompatible Materials	Strong acids, Strong bases, Sources of ignition, Direct sunlight.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

Ingredient Name	Exposure Limits
Propylene Glycol	**Canada, Alberta OHSC Code** 200mg/m^3 **ACGIH TLV** TLV: 100mg/m^3
Potassium hydroxide	**Canada, Alberta OHSC Code** None established **ACGIH** Ceiling: 2mg/m^3
Phosphoric acid, 75%, aqueous solution	**Canada, Alberta OHSC Code** 1mg/m^3 **ACGIH** TWA: 1mg/m^3 STEL: 3mg/m^3 **OSHA PEL** TWA 1mg/m^3
Boric Acid	**Canada, Alberta OHSC Code** None established **ACGIH**

Sodium 4(or 5)-methyl-1H-benzotriazolide	TWA: 2mg/m³ STEL: 6mg/m³ **Canada, Alberta OHSC Code** None established
Polydimethylsiloxane	**Canada, Alberta OHSC Code** None established
Silica filled polydimethylsiloxane	**Canada, Alberta OHSC Code** None established
Sucrose distearate	**Canada, Alberta OHSC Code** TWA: 10mg/m³ (Stearates in general)
Propylene Glycol	**Canada, Alberta OHSC Code** 200mg/m³ **ACGIH TLV** TLV: 100mg/m³

Personal protective equipment

Eye/face protection	Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals. If contact is possible, the following protection should be worn: Splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If inhalation hazards exist, a full-face respiratory may be required instead.
Skin protection	Wear chemical resistant gloves, impermeable protective clothing and safety shoes. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary.
General hygiene Considerations	Handle in accordance with good industrial hygiene and safety. Eye wash fountains and safety showers must be easily accessible.
Specific engineering controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.

Section 9 – Physical and Chemical Properties

Physical State	Liquid	**Water Solubility**	miscible
Appearance & Odour	Clear, Colourless. Odourless.	**Boiling Point**	>100°C
Vapour Pressure	0.011 kPa (20.0°C)	**Boiling Point Range**	Not applicable
Vapour Density	2.5 (Air = 1)	**Melting Point**	-22°C
Specific Gravity	1.03 – 1.05	**Freezing Point**	-22°C
Partition coefficient (n-octonal/water)	Not available.	**Lower Explosive Limit (LEL)**	2.6 %
pH	8.0 – 9.5 Neat	**Upper Explosive Limit (UEL)**	12.5 %
Flashpoint (Method)	Not flammable	**Auto Ignition temperature**	415°C
Odour Threshold	Not available.	**Evaporation Rate**	Not available.

Flammability (Solid, Gas)	Not available.		
Decomposition Temperature	Not available.	**Viscosity**	Not available.

Section 10 – Stability and Reactivity

Reactivity No specific test data related to reactivity available for this product.
Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions No data available.
Conditions to avoid Sources of ignition, Direct sunlight
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents
Hazardous decomposition products Carbon oxides.

Section 11- Toxicological Information

Information on Likely Routes of Exposure

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin contact Harmful if absorbed through the skin. May cause skin irritation.
Eye contact May cause eye irritation.
Ingestion May be harmful if swallowed.
Acute and Chronic Toxicity May be harmful if swallowed.

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Propylene Glycol	LD50 Oral	Rat	20000mg/kg	-
	LD50 Dermal	Rabbit	20800mg/kg	-
Potassium hydroxide	LD50 Oral	Rat	333mg/kg	-
Phosphoric acid, 75%, aqueous solution	LD50 Oral	Rat	4400mg/kg	-
Boric Acid	LD50 Oral	Rat	>2000mg/kg	-
	LD50 Dermal	Rabbit	>2000mg/kg	-
Sodium 4(or 5)-methyl-1H-benzotriazolide	LD50 Oral	Rat	2660mg/kg	
	LD50 Dermal	Rabbit	>2000mg/kg	
Polydimethylsiloxane	No data available			
Silica filled polydimethylsiloxane	No data available			
Sucrose distearate	No data available			

Skin corrosion/irritation Not classified.
Serious eye damage/ Eye irritation Not classified.
Respiratory or skin sensitization Not classified.
Mutagenicity Not classified.
Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity Not classified.

Teratogenicity Not classified.

Specific target organ toxicity - single exposure (Globally Harmonized System)
Not classified.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
Not classified.

Aspiration hazard Not classified.

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure

Short Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Long Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Potential Chronic Effects No data available.

Synergistic effects No data available

Section 12 – Ecological Information

Toxicity

Product / Ingredient Name	Result	Species	Exposure
Propylene Glycol	LC50 52930mg/L	Fish – Pimephales promelas	96 Hr
	EC50 >10000mg/L	Daphnia – Daphnia magna	24 Hr
Potassium hydroxide	LC50 28.6mgL	Fish – Pisces	96 Hr
Phosphoric acid, 75%, aqueous solution	LC50 138mgL	Fish – Pisces	96 Hr
Boric Acid	LC50 100ppm	Fish – Oncorhynchus mykiss	96 Hr
	EC50 658-875mg/L	Daphnia – Dapnhia magna	48 Hr
Sodium 4(or 5)-methyl-1H-benzotriazolide	LC 50 25mgL	Fish – Oncorhynchus mykiss	96 Hr
	EC 50 280mg/L	Daphnia – Daphnia magna	24 Hr
Polydimethylsiloxane	No data available		
Silica filled polydimethylsiloxane	No data available		
Sucrose distearate	No data available		

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil No data available.

PBT and vPvB assessment No data available

Section 13 – Disposal Considerations

Product

Do not discharge substance/product into sewer system. Dispose of in accordance with national, regional, and local regulations.

Contaminated packaging

Dispose of as unused product in a licensed facility. Recommend crushing, puncturing, or other means to prevent unauthorized use of used containers. Do not cut, weld, or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled materials and runoff and contain with soil, waterways, drains, and sewers.

Section 14 - Transportation Information

CANADA Transportation of Dangerous Goods (TDG)
Not Dangerous Goods

Section 15 – Regulatory Information

DSL (Canadian Domestic Substances List)
and CEPA (Canadian Environmental Protection Act)
All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

TSCA Inventory All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Section 16 – Other Information

REVISION SUMMARY:

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SDS Prepared by: CFR Lab Manager

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