Safety Data Sheet – GHS

StaTherm 55%

Date of Revision: March 15, 2022

Section 1 - Chemical Product and Company Identification

Product Name	StaTherm 55%
Synonyms	CFR StaCool SRE-55 (former)
Product Use	Industrial Heat Transfer Fluid
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:

H302	Harmful if swallowed.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Precautionary Statement

Prevention

P260	Do not breathe dust/gas/mist/vapours.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.

Response

P301 + P312 +P330	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse Mouth.
P314	Get medical advice/attention if you feel unwell.

Storage

No Statements.

Disposal

P501	Dispose of contents/container to an approved waste disposal unit.

GHS Classification Acute Toxicity (oral) (Category 4)
Specific target organ toxicity - repeated exposure, oral (Kidney) (Category 2)

HMIS Classification

Health Hazard **1**

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

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin.
Eye	Causes eye irritation.
Ingestion	May be harmful if swallowed.

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT, Common Name	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Ethylene Glycol	1,2-ethanediol, EG, Glycol	54 – 55%	107-21-1
Water	Aqua	44 – 45%	7732-18-5
Potassium hydroxide	Caustic Potash, Lye	0.4 - 1.6%	1310-5-3
Phosphoric acid, 75%, aqueous solution	Orthophosphoric Acid	0.4 - 1.6%	7664-38-2
Disodium tetraborate, pentahydrate	Not Applicable	0.05 – 0.8%	12173-04-3
Sodium 4(or 5)-methyl-1H-benzotriazolide	Not Applicable	0.02 – 0.4%	64665-57-2
Polydimethylsiloxane	Not Applicable	0.02 – 0.08%	63147-62-9
Silica filled polydimethylsiloxane	Not Applicable	0 – 0.04%	67762-90-7
Sucrose distearate	Not Applicable	0 – 0.04%	27915-16-0

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

Section 4 - First Aid Measures

Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids. Check for and remove contact lenses. Continue to rinse for at least 15 minutes. Get medical attention.
Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Get medical attention immediately. Call a poison control centre or physician. IF alert, rinse mouth and drink ½ to 1 glass of water to help dilute the material. Do not give liquids to a drowsy, convulsion, or unconscious patient. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so vomit does not enter the lungs. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

Most Important Symptoms/Effects both Acute and Delayed

Harmful if swallowed. May cause damage to the kidneys if swallowed. May cause drowsiness or dizziness. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. May cause slight eye and skin irritation. Symptoms include: Redness, swelling, itching and dryness. Suspected of damaging the unborn child.

Note to Physician

Kidney toxicity may be recognized by blood in the urine or increased or decreased urine flow. Other signs and symptoms can include nausea, vomiting, abdominal cramps, diarrhea, lumbar pain shortly after ingestion, and possibly narcosis and death. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing.
IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT! May cause significant renal, respiratory, and CNS toxicity. May cause significant acidosis. Call a doctor or poison control center for guidance.

Section 5 – Fire-Fighting Measures

Flash Point (°C)	Not flammable
Flash Point Method	PMCC
Auto Ignition Temperature	225°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	No data available.

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.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

Ingredient Name	Exposure Limits
Ethylene Glycol	**Canada, Alberta OHSC Code** 100mg/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
Disodium tetraborate, pentahydrate	**Canada, Alberta OHSC Code** TWA: 1mg/m^3 Ceiling: 3mg/m^3 **ACGIH** TWA: 2mg/m^3
Sodium 4(or 5)-methyl-1H-benzotriazolide	**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/m^3 (Stearates in general)

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**	108°C
Vapour Pressure	0.06 kPa (20.0°C)	**Boiling Point Range**	Not applicable.
Vapour Density	2.14 (Air = 1)	**Melting Point**	<-40°C
Specific Gravity	1.06 – 1.08	**Freezing Point**	<-40°C
Partition coefficient (n-octonal/water)	Not available.	**Lower Explosive Limit (LEL)**	Not available.
pH	8.5-8.7 Neat 9-9.2 (5% solution in water)	**Upper Explosive Limit (UEL)**	Not available.
Flashpoint (Method)	Not flammable	**Auto Ignition temperature**	225°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	No data available.
Materials to avoid	Strong acids. Strong oxidizing agents. Strong bases.
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 cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, lumbar pain, oliguria, uremia, and central nervous system effects, including irregular eye movements, convulsions and coma. Cardiac failure, pulmonary edema, and severe kidney damage may develop. May be fatal if swallowed, lethal dose in adult humans for ethylene glycol is approximately 100 mL

Acute and Chronic Toxicity

Poison. Toxic if swallowed. If swallowed there is a risk of blindness.

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Ethylene Glycol	LD50 Oral	Rat	4700mg/kg	-
	LD50 Dermal	Rabbit	10626mg/kg	-
Potassium hydroxide	LD50 Oral	Rat	333mg/kg	-
Phosphoric acid, 75%, aqueous solution	LD50 Oral	Rat	4400mg/kg	-
Disodium tetraborate, pentahydrate	LD50 Oral	Rat	>2000mg/kg	-
	LD50 Dermal	Rabbit	>2000mg/kg	-
Sodium 4(or 5)-methyl-1H-benzotriazolide	LD50 Oral	Rat	640 – 1980mg/kg	
	LD50 Dermal	Rabbit	>2000mg/kg	
Polydimethylsiloxane	No data available			
Silica filled polydimethylsiloxane	No data available			
Sucrose distearate	No data available			

Skin corrosion/irritation Causes severe skin burns and eye damage.
Serious eye damage/ Eye irritation

Slightly irritating to the eye.

Respiratory or skin sensitization

No data available. Not expected to be a sensitizer.

Mutagenicity No known significant effects or critical hazards.
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.

Reproductive toxicity Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Teratogenicity Laboratory experiments have shown teratogenic effects.
Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Oral - May cause damage to organs through prolonged or repeated exposure. - Kidney

Aspiration hazard No data available.
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
Ethylene Glycol	LC50 18500mg/L LC50 >1000mg/L EC50 74000mg/L	Fish – Oncorhynchus mykiss Fish – Leuciscus idus Daphnia – Daphnia magna	96 Hr 48 Hr 24 Hr
Potassium hydroxide	LC50 28.6mgL	Fish – Pisces	96 Hr
Phosphoric acid, 75%, aqueous solution	LC50 138mgL	Fish – Pisces	96 Hr
Disodium tetraborate, pentahydrate	LC50 100 – 1000mg/L EC50 340mg/L	Fish – Pisces Daphnia – Dapnhia magna	96 Hr 24 Hr
Sodium 4(or 5)-methyl-1H-benzotriazolide	LC 50 25mgL EC 50 280mg/L	Fish – Oncorhynchus mykiss Daphnia – Daphnia magna	96 Hr 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 Does not bioaccumulate.
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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Date of Revision	March 15, 2022

SDS Prepared by: CFR Lab Manager

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