Safety Data Sheet - GHS
CPF-203

Date of Revision: March 15, 2022

Section 1 - Chemical Product and Company Identification

Product Name	CPF-203
Synonyms	CFR Packer Fluid Inhibitor 203
Product Use	Packer Fluid Inhibitor
Restriction on Use	None identified
Manufacturer/Supplier	CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6
General Assistance	1 (877) 269-3419
Emergency Telephone	**613-966-6666 (CANUTEC 24 Hour Phone Number)**
Date of Preparation of SDS	February 1, 2019

Section 2 – Hazard Identification

Signal Word Danger

GHS Pictogram(s)

Hazard Statement:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage
H360	May damage fertility or the unborn child.
H371	May cause damage to organs.

Precautionary Statement

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking
P233	Keep Container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non sparking tools.
P243	Take action to prevent static discharges.
P260	Do no breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P321	Specific Treatment (see label)

P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352 + P312	IF ON SKIN: Wash with plenty of water. Call a POISON CENTRE or doctor/physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair) Take off immediately all contaminated clothing, rinse skin with water (or shower).
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTRE.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POICSON CENTRE / Doctor.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: use appropriate media to extinguish.
Storage	
P403 + P233 + P235	Store in well-ventilated place. Keep contained tightly closed. Keep Cool
P405	Store locked up.
Disposal	
P501	Dispose of contents/container to an approved waste disposal unit.

GHS Classification

Flammable liquids (Category 3)
Acute Toxicity, Oral (Category 4)
Skin corrosion/irritation (Category 1C)
Reproductive Toxicity (Category 1B)
Serious eye damage/eye irritation (Category 1)
Specific target organ toxicity - single exposure (Category 2)

Potential Health Effects

Inhalation May cause respiratory tract irritation. May cause damage to organs by inhalation. Prolonged inhalation may be harmful.

Skin Causes severe skin burns.

Eye Causes serious eye damage.

Ingestion Harmful if swallowed.

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Ethylene Glycol	1,2-ethanediol, EG, Glycol	70 – 80%	107-21-1
Methanol	Methyl alcohol, wood alcohol, carbinol, wood spirits, methyl hydroxide, methyl hydrate	5 – 10%	67-56-1
Benzyl alkyl pyridinyl quaternary ammonium chloride	Not applicable	1 – 3%	68909-18-2
Quaternary ammonium compounds	Not applicable	1 – 3%	68607-28-3
Ammonium bisulfite	Not applicable	1 – 3%	10192-30-0

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

Chemical Formula Mixture

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 center or physician. Wash out mouth with water and give one half to one glass of water to dilute stomach contents. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so vomit does not enter the lungs.
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)	38.0°C
Flash Point Method	PMCC
Auto Ignition Temperature	Not determined.
Conditions of Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point.
Extinguishing Media	Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media	Water jet.
Unusual Fire/ Explosion Hazard	Vapors may collect in low spots and “flash back” from ignition sources.

	Lower explosive limit = 6%, upper explosive limit = 36.5% (Methanol)
Hazardous Combustion Products	Carbon oxides, formaldehyde, toxic gases and vapours.
Special Protective Equipment and Precautions for Firefighters	Wear full firefighting gear and self-contained breathing apparatus (SCBA) for protection against possible exposure..

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. Vapours 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 environmentmust be avoided.
Methods and materials for containment and cleaning up	Contain free liquid if possible. Pick up by covering with an activated carbon absorbent or other suitable inert absorbent material (e.g. sand, sawdust, general-purpose binder). Take up & place in closed containers. Ventilate area & wash spill site after material pickup is complete. Contain and dispose of wash water in accordance with local regulations.

Section 7 – Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place.
Incompatible Conditions	Heat, Flames, Sparks.
Incompatible Materials	Oxidizing materials.

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
Methanol	**Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)** TWA: 200ppm STEL: 250ppm
Benzyl alkyl pyridinyl quaternary ammonium chloride	**Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)** Not Established
Quaternary ammonium compounds	**Canada, Alberta, Occupational Health**

	and Safety Code (table 2: OEL) Not Established
Ammonium bisulfite	**Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)** Not Established

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 respirator 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 practices. 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**	Complete
Appearance & Odour	Clear to hazy, dark brown to black liquid. Pungent odour.	**Boiling Point**	60°C
Vapour Pressure	No data available	**Boiling Point Range**	60°C +
Vapour Density	No data available	**Melting Point**	-40°C
Specific Gravity	1.062 – 1.082	**Freezing Point**	-40°C
Partition coefficient (n-octonal/water)	Not available	**Lower Explosive Limit (LEL)**	Not available
pH	6.2 – 7.29 (1% v/v in DI water)	**Upper Explosive Limit (UEL)**	Not available
Flashpoint (Method)	38.0°C (PMCC)	**Auto Ignition temperature**	Not available
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	Containers may rupture or explode if exposed to heat.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous Reactions	Hazardous polymerization does not occue.
Conditions to avoid	Heat, flames and sparks. Contact with incompatibles. Temperatures above the flashpoint.
Materials to avoid	Oxidizing materials.
Hazardous decomposition Products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides. Other decomposition products - No data available

Section 11- Toxicological Information

Information on Likely Routes of Exposure

Inhalation	May cause respiratory tract irritation. May cause damage to organs by inhalation. Prolonged inhalation may be harmful.
Skin	Causes severe skin burns.
Eye	Causes serious eye damage.
Ingestion	Harmful if swallowed.

Acute and Chronic Toxicity

Poison. Toxic if swallowed, in contact with skin or if inhaled. 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	-
Methanol	LC50 Inhalation, vapour	Rat	128.2mg/L	4 Hr
	LD50 Oral	Rat	1187-2769mg/kg	-
	LD50 Dermal	Rabbit	17100mg/kg	-
Benzyl alkyl pyridinyl quaternary ammonium chloride	No data available			
Quaternary ammonium compounds	No data available			
Ammonium bisulfite	No data available			

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

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Does not cause skin sensitization. Not a respiratory sensitizer.

Germ cell 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.

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 Methanol may cause teratogenic/embryotoxic effects based on studies in laboratory animals.

Specific target organ toxicity - single exposure (Globally Harmonized System)
May cause damage to organs.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
This substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard No aspiration toxicity classification.

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

Short Term Exposure

Potential immediate Health Effects
Causes severe skin burns and eye damage. Causes serious eye damage.

Potential Delayed Health Effects
Can cause damage to organs through prolonged or repeated exposure.

Long Term Exposure

Potential immediate Health Effects No data available**.**

Potential Delayed Health Effects No data available.

Potential Chronic Effects May cause liver and kidney damage.

Synergistic effects Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide.

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
Methanol	LC50 15400mg/L NOEC 7900mg/L EC50 >10000mg/L	Fish – Lepomis macrochirus Fish – Oryzias Latipes Daphnia – Daphnia magna	96 Hr 200 Hr 48 Hr
Benzyl alkyl pyridinyl quaternary ammonium chloride	No data available		
Quaternary ammonium compounds	No data available		
Ammonium bisulfite	No data available		

Persistence and degradability

Biodegradability

Methanol aerobic
Result: 72 % - readily biodegradable
Method: OECD Test Guideline 3-1D

Other components have unknown biodegradability.

Bioaccumulative potential No data available.
Mobility in soil No data available.
PBT and vPvB assessment No data available.
Other adverse effects No data available

Section 13 – Disposal Considerations

Product This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product.

Section 14 - Transportation Information

CANADA Transportation of Dangerous Goods (TDG)

Shipping Name UN2924, Flammable liquid, Corrosive, N.O.S. (Methanol, Quaternary Ammonium Sald), 3(8), PG III
Class 3(8)
UN Number UN2924
Packaging Group: III
Environmental hazards Not a marine pollutant.
Transportation in bulk, if applicable No data available
Special Precautions No data available

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 (8b) 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:

Date of Preparation February 1, 2019
Date of Revision March 15, 2022

SDS Prepared by: CFR Lab Manager

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