Safety Data Sheet - GHS
CPF-103

Date of Revision: March 15, 2022

Section 1 - Chemical Product and Company Identification

Product Name	CPF-103
Synonyms	CFR Packer Fluid Inhibitor 103
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	April 1, 2017

Section 2 – Hazard Identification

Signal Word Danger

GHS Pictogram(s)

Hazard Statement:

H226	Flammable liquid and vapour.
H301 +H311 +H331	Toxic if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H370	Causes damage to organs.

Precautionary Statement

Prevention

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.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P321	Specific Treatment (see label)
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P330	Rinse mouth.

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 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE or doctor/physician.
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 POISON CENTRE or doctor/physician.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361 + P364	Take off immediately all contaminated clothing and wash it 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 3)
Acute Toxicity, Inhalation (Category 3)
Acute Toxicity, Dermal (Category 3)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 1)

HMIS Classification

Health Hazard	**2**
Chronic Health Hazard	*****
Flammability	**3**
Physical Hazards	**0**

Potential Health Effects

Inhalation	Toxic if inhaled. May cause respiratory tract irritation.
Skin	Toxic if absorbed through skin. Causes skin irritation.
Eye	Causes serious eye irritation .
Ingestion	Toxic if swallowed.

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Methanol	Methyl alcohol, wood alcohol, carbinol, wood spirits, methyl hydroxide, methyl hydrate	10 – 20%	67-56-1
Benzyl alkyl pyridinyl quaternary ammonium chloride	Not applicable	50 – 60%	68909-18-2
Quaternary ammonium chloride	Not applicable	0 – 10%	61789-71-7

Ethylene Glycol Monobutyl Ether	EGMBE; 2-Butoxyethanol; Glycol ether EB; Butyl cellosolve; Butyl glycol	0 – 5%	111-76-2
Ethoxylated amine	Not applicable	0 – 5%	91791-17-1
Cyclohexylamine	Aminocyclohexane		108-91-8

* = 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. Never give anything by mouth to an unconscious person. 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

Acute Poison. Toxic if swallowed, inhaled, or in contact with skin. Causes skin irritation, and serious eye irritation.

Note to Physician When plasma methanol concentration is higher than 20mg/dL, a 10% solution of ethanol in 5% aqueous dextrose is an effective intravenous antidote.

Section 5 – Fire-Fighting Measures

Flash Point (°C) 37.8°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. Acids, Acid anhydrides, Acyl halides and Alkyl halides.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

Ingredient Name	**Exposure Limits**
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 chloride	**Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)** Not Established
Ethylene Glycol Monobutyl Ether	**Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL)** TWA: 20ppm
Ethoxylated amine	**Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)**

Cyclohexylamine	Not Established **Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)** TWA: 10ppm

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, dark brown liquid	**Boiling Point**	Not available
Vapour Pressure	No data available	**Boiling Point Range**	91.7 – 101.7°C
Vapour Density	No data available	**Melting Point**	Not available
Specific Gravity	1.00 – 1.01	**Freezing Point**	Not available
Partition coefficient (n-octonal/water)	Not available	**Lower Explosive Limit (LEL)**	Not available
pH	8 - 9 (5% v/v)	**Upper Explosive Limit (UEL)**	Not available
Flashpoint (Method)	37.8°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	Vapours may form explosive mixture with air.

Conditions to avoid Heat, flames and sparks.

Materials to avoid Oxidizing materials. Acids, Acid anhydrides, Acyl halides and Alkyl halides. Attacks copper, aluminum , zinc, nickel and cast iron.

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 Toxic if inhaled. May cause respiratory tract irritation.

Skin Toxic if absorbed through skin. Causes skin irritation.

Eye Causes serious eye irritation .

Ingestion Toxic 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
Methanol	LC50 Inhalation, vapour	Rat	128.2mg/L	4 Hr
	LD50 Oral	Rat	1187-	-
	LD50 Dermal	Rabbit	2769mg/kg	-
			17100mg/kg	
Benzyl alkyl pyridinyl quaternary ammonium chloride	No data available			
Quaternary ammonium chloride	No data available			
Ethylene Glycol Monobutyl Ether	LD50 Oral	Rat	3730mg/kg	-
	LD50 Dermal	Rat	>3000mg/kg	-
Ethoxylated amine	No data available			
Cyclohexylamine	LC50 Inhalation, vapour	Rat	7500mg/m^3	Not specified
	LD50 Oral	Rat	300mg/kg	-
	LD50 Dermal	Rabbit	277mg/kg	-

Skin corrosion/irritation Components of this product are irritating to skin.

Serious eye damage/eye irritation

Components of this product (cyclohexylamine, ethylene glycol monobutyl ether) can cause serious damage to eyes. Eye irritant.

Respiratory or skin sensitization

Does not cause skin sensitization.

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)
Causes 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
Poison. Toxic if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation.. A latent period of several hours may occur between exposure and the onset of symptoms.

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
Methanol	LC50 15400mg/L	Fish – Lepomis macrochirus	96 Hr
	NOEC 7900mg/L	Fish – Oryzias Latipes	200 Hr
	EC50 >10000mg/L	Daphnia – Daphnia magna	48 Hr
Benzyl alkyl pyridinyl quaternary ammonium chloride	No data available		
Quaternary ammonium chloride	No data available		
Ethylene Glycol Monobutyl Ether	LC50 1474mg/L	Fish – Oncorhynchus mykiss	96 Hr
	EC50 1550mg/L	Daphnia – Daphnia magna	48 Hr
Ethoxylated amine	No data available		
Cyclohexylamine	LC50 33mg/L	Fish – Oryzias latimes	96 Hr
	ED50 36.3mg/L	Daphnia – Daphnia magna	48 Hr

Persistence and degradability

Biodegradability

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

Ethylene Glycol Monobutyl Ether: aerobic
Result: Readily biodegradable

Cyclohexylamine: aerobic
Result: 92 % - readily biodegradable

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	UN1993, Flammable liquid, N.O.S. (Methanol), 3. PG II
Class	3
UN Number	UN1993
Packaging Group:	II
Label	

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	April 1, 2017
Date of Revision	March 15, 2022

SDS Prepared by: CFR Lab Manager

CFR Chemicals Inc. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. CFR Chemicals Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, CFR CHEMICALS INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OR RELIANCE UPON THIS INFORMATION.