SDS no. PID1354
Version 12
Revision date 17/Sep/2018
Supersedes date 31/Jan/2017

Safety Data Sheet
SAFE-BREAK* CBF

1. Identification of the Substance/Preparation and of the Company/Undertaking

1.1 Product identifier

Product name SAFE-BREAK* CBF

Product code PID1354

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Completion fluid additive.

Uses advised against Consumer use

1.3 Details of the supplier of the safety data sheet

Supplier
M-I L.L.C.
P.O.Box 42842
Houston, TX 77242
www.miswaco.slb.com
Telephone: 1 281-561-1511

Schlumberger Canada, Ltd.
200, 125 - 9th Avenue SE
Calgary, Alberta T2G 0P6, Canada
Telephone: 1-613-992-4624

E-mail address sdsmi@slb.com

Prepared by
Global Regulatory Compliance - Chemicals (GRC - Chemicals)

1.4 Emergency Telephone Number

Emergency telephone (24 Hour) Asia Pacific +65 3158 1074, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, USA +1 281 561 1600, Canada +1 800 579 7421, Argentina: +54 11 5984 3690, Brazil : 0800-720-8000/0800-777-2323 (WGRA)

2. Hazards Identification

2.1 Classification of the substance or mixture

GHS - Classification

Health hazards

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 5

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity - Single exposure	Category 3 - (H336)

Environmental hazards

Chronic aquatic toxicity	Category 3

Physical Hazards

Flammable Liquids	Category 2

2.2 Label elements

Signal word
DANGER

Hazard Statements
H302 - Harmful if swallowed
H313 - May be harmful in contact with skin
H316 - Causes mild skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects
H225 - Highly flammable liquid and vapor

Precautionary Statements
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 surfaces, sparks, open flames and other ignition sources. No smoking
P280 - Wear protective gloves and eye/face protection
P281 - Use personal protective equipment as required
P370 + P378 - In case of fire: Use dry sodium carbonate to extinguish

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P312 - Call a POISON CENTER or doctor if you feel unwell
P233 - Keep container tightly closed
P403 + P235 - Store in a well-ventilated place. Keep cool
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P273 - Avoid release to the environment

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Hazards not otherwise classified
None known

Unknown acute toxicity 1% of the mixture consists of ingredient(s) of unknown toxicity.

1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
1 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

3. Composition/information on Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical Name	CAS No	Weight-%
Propan-2-ol	67-63-0	65 - 85
Polyol compound	Proprietary	15 - 40
2-butoxyethanol	111-76-2	1 - 5
Quaternary ammonium salt	Proprietary	1 - 5
Methanol	67-56-1	0.1 - 1
Amine compounds	Proprietary	0.1 - 1

Comments
The product contains other ingredients which do not contribute to the overall classification. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret

HMIRA Registration Number: 11090 **Filing Date:** 31/Jan/2017

4. First Aid Measures

4.1 First aid measures

Inhalation Move to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. Get medical attention immediately if symptoms occur.

Ingestion Do not induce vomiting without medical advice. Call a physician or poison control center immediately. Obtain medical attention.

Skin contact Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water for at least 30 minutes. Get immediate medical attention.

Eye Contact Rinse immediately with plenty of water, also under the eyelids. Remove contact lenses, if worn. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms

Inhalation Please see Section 11. Toxicological Information for further information.

Ingestion Please see Section 11. Toxicological Information for further information.

Skin contact Please see Section 11. Toxicological Information for further information.

Eye contact Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically
Keep victim under observation

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Water Fog, Alcohol Foam, CO_2, Dry Chemical.

Extinguishing media which must not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards
Highly flammable. Vapors may form explosive mixtures with air. Flash back possible over considerable distance. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Heating of containers may cause pressure rise, with risk of bursting.

Hazardous combustion products
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke), Nitrogen oxides (NOx), Ammonia, Chlorine, chlorine oxides, hydrogen chloride.

5.3 Advice for firefighters

Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Evacuate and ventilate the area. Use personal protective equipment. Avoid contact with heat, sparks, open flame, and static discharge. Contaminated surfaces will be extremely slippery.

6.2 Environmental precautions

Should not be released into the environment. Do not allow spilled material to enter sewers, storm drains or surface waters.

Environmental exposure controls
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material. Take precautionary measures against static discharges.

6.4 Reference to other sections

See section 13 for more information. See section 8 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Handling
Keep away from heat, sparks and open flame. No smoking. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions Keep away from open flames, hot surfaces and sources of ignition. Keep airborne concentrations below exposure limits. Ensure adequate ventilation.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking. Keep away from open flames, hot surfaces and sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Store in original container.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	Argentina - Occupational Exposure Limits - TWAs (CMPs)	Brazil - Occupational Exposure Limits - TWAs (LTs)	Mexico - Occupational Exposure Limits - TWAs (LMPE-PPTs)
Propan-2-ol	200 ppm	400 ppm TWA 980 mg/m³ TWA	400 ppm TWA	310 ppm TWA LT; 765 mg/m³ TWA LT	400 ppm TWA VLE-PPT; 980 mg/m³ TWA VLE-PPT
Polyol compound	Not determined	Not determined	Not determined	Not determined	Not determined
2-butoxyethanol	20 ppm	50 ppm TWA 240 mg/m³ TWA	20 ppm TWA	39 ppm TWA LT; 190 mg/m³ TWA LT	26 ppm TWA VLE-PPT; 120 mg/m³ TWA VLE-PPT
Quaternary ammonium salt	Not determined	Not determined	Not determined	Not determined	Not determined
Methanol	200 ppm	200 ppm TWA 260 mg/m³ TWA	200 ppm TWA	156 ppm TWA LT; 200 mg/m³ TWA LT	200 ppm TWA VLE-PPT; 260 mg/m³ TWA VLE-PPT
Amine compounds	Not determined	Not determined	Not determined	Not determined	Not determined

IDLH (Immediately Dangerous to Life or Health)
Immediately Dangerous to Life or Health (IDLH) is established by the US National Institute for Occupational Safety and Health (NIOSH). The purpose of establishing an IDLH value is to ensure that the worker can escape from a given contaminated environment in the event of failure of the most protective respiratory protection equipment. In the event of failure of respiratory protection equipment every effort should be made to exit immediately.

Chemical Name	IDLH (Immediately Dangerous to Life or Health)
Propan-2-ol 67-63-0	2000 ppm IDLH (10% LEL)
Polyol compound	-
2-butoxyethanol 111-76-2	700 ppm IDLH

Quaternary ammonium salt	-
Methanol 67-56-1	6000 ppm IDLH
Amine compounds	-

8.2 Exposure controls

A risk assessment is recommended to be performed by a qualified and trained personnel to analyze the worksite and recommends the appropriate controls such as engineering controls, work practice controls, and administrative controls as primary means of reducing employee exposure. When there is a remaining hazards after applying the primary controls, Personal Protective Equipment (PPE) must be used.

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering Controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye protection	Tightly fitting safety goggles.
Hand protection	Wear chemical resistant gloves such as nitrile or neoprene. Be aware that liquid may penetrate the gloves. Frequent change is advisable.
Respiratory Protection	All respiratory protection equipment should be used within a comprehensive respiratory protection program that meets the requirements of 29 CFR 1910.134 (U.S. OSHA Respiratory Protection Standard) or local equivalent.If exposed to airborne mist/aerosol of this product, use an organic vapor cartridge with a P-95 pre-filter attached. In work environments containing oil mist/aerosol, use an organic vapor cartridge with a P-95 pre-filter attached.If exposed to vapors from this product, use a NIOSH/MSHA-approved respirator with an organic vapor cartridge.
Skin and body protection	Wear appropriate personal protective clothing to prevent skin contact, Eye wash and emergency shower must be available at the work place.
Hygiene Measures	Wash hands before breaks and immediately after handling the product, Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Transparent
Color	Amber
Odor	Alcohol
Odor threshold	Not applicable

Property	**Values**	**Remarks**
pH	6.8 - 7.8	
pH @ dilution		No information available
Melting / freezing point	No information available	
Boiling point/range	> 62 °C / 143 °F	
Flash point	17 °C / 62 °F	PMCC
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	

Vapor pressure	No information available
Vapor density	>1 @ Air = 1
Specific gravity	0.84 - 0.87
Bulk density	No information available
Water solubility	Soluble
Solubility in other solvents	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
log Pow	No information available
Explosive properties	No information available
Oxidizing properties	No information available

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	No information available
Density	No information available

Comments
The data listed above are typical physical and chemical properties and should not be construed as product specification.

10. Stability and Reactivity

10.1 Reactivity

Highly flammable liquid and vapor.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization
Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid contact with heat, sparks, open flame, and static discharge. Do not freeze.

10.5 Incompatible materials

Strong oxidizing agents. Reducing agents. Acids. Bases.

10.6 Hazardous decomposition products

See Section 5.2.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Product information	Methanol is more toxic to humans and primates than to most experimental animals, due to differences in how it is metabolized. Non-primates do not appear to experience the acidosis or vision effects observed in humans and primates.
Inhalation	May cause drowsiness or dizziness. Inhalation of vapors in high concentration may cause irritation of respiratory system. Vapors inhaled in high concentration have a narcotic effect

	on the central nervous system. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.
Eye contact	Causes serious eye irritation. Inhalation, ingestion, or skin absorbtion of methanol can cause blindness.
Skin contact	Prolonged contact may cause redness and irritation. May cause skin irritation and/or dermatitis. Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propan-2-ol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m³ (Rat) 4 h
Polyol compound	= 28,000 mg/kg (Rat)	> 20,000 mg/kg (Rabbit)	No data available
2-butoxyethanol	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Quaternary ammonium salt	= 250 mg/kg (Rat)	No data available	No data available
Methanol	= 6200 mg/kg (Rat)	= 15800 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h
Amine compounds	= 1500 mg/kg (Rat)	No data available	No data available

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Propan-2-ol	No data available	A4	No data available	No data available
Polyol compound	No data available	No data available	No data available	No data available
2-butoxyethanol	No data available	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	No data available	No data available
Quaternary ammonium salt	No data available	No data available	No data available	No data available
Methanol	No data available	No data available	No data available	No data available
Amine compounds	No data available	No data available	No data available	No data available

Sensitization	Not classified.
Mutagenic effects	No evidence of mutagenic properties.
Carcinogenicity	No evidence of carcinogenic properties.
Reproductive toxicity	No evidence of toxicity to reproduction.
Developmental toxicity	Contains ingredients that have suspected developmental hazards.
Routes of exposure	Inhalation. Skin contact. Eye contact. Ingestion.
Routes of entry	Inhalation. Skin absorption. Ingestion.
Specific target organ toxicity - Single exposure	Category 3
Specific target organ toxicity - Repeated exposure	Not classified.
Neurological effects	Central nervous system depressant. Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.
Target organ effects	Central nervous system.
Aspiration hazard	Not classified.

12. Ecological Information

12.1 Toxicity

Toxicity to algae
See component information below.

Toxicity to fish
See component information below.

Toxicity to daphnia and other aquatic invertebrates
See component information below.

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Propan-2-ol	> 1400000 µg/L LC50 Lepomis macrochirus 96 h = 11130 mg/L LC50 Pimephales promelas 96 h = 9640 mg/L LC50 Pimephales promelas 96 h	> 1000 mg/L EC50 Desmodesmus subspicatus 96 h > 1000 mg/L EC50 Desmodesmus subspicatus 72 h	= 13299 mg/L EC50 Daphnia magna 48 h
Polyol compound	> 5000 mg/L LC50 Carassius auratus 24 h	No information available	No information available
2-butoxyethanol	= 2950 mg/L LC50 Lepomis macrochirus 96 h = 1490 mg/L LC50 Lepomis macrochirus 96 h	No information available	1698 - 1940 mg/L EC50 Daphnia magna 24 h > 1000 mg/L EC50 Daphnia magna 48 h
Quaternary ammonium salt	No information available	No information available	No information available
Methanol	18 - 20 mL/L LC50 Oncorhynchus mykiss 96 h 19500 - 20700 mg/L LC50 Oncorhynchus mykiss 96 h 13500 - 17600 mg/L LC50 Lepomis macrochirus 96 h > 100 mg/L LC50 Pimephales promelas 96 h = 28200 mg/L LC50 Pimephales promelas 96 h	EC50= 22000 mg/l - Duration h: 96 - Notes: Literature data.	EC50> 10000 mg/l - Duration h: 48 - Notes: Literature data.
Amine compounds	0.1 - 1 mg/L LC50 Brachydanio rerio 96 h	No information available	No information available

12.2 Persistence and degradability

No product level data available.

12.3 Bioaccumulative potential

No product level data available.

12.4 Mobility

No information available.

12.5 Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)
This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

12.6 Other adverse effects.

None known.

13. Disposal Considerations

13.1 Waste treatment methods

Disposal Method	Disposal should be made in accordance with federal, state and local regulations.
Contaminated packaging	Do not burn, or use a cutting torch on, the empty drum. Empty containers may contain flammable or explosive vapors. Empty containers should be taken for local recycling, recovery or waste disposal.

14. Transport information

14.1. UN number

UN No. (DOT)	UN1219
UN No. (MT/ANTT)	Not regulated
UN No. (TDG)	UN1219
UN/ID No. (ADR/RID/ADN/ADG)	UN1219
UN No. (IMDG/ANTAQ)	UN1219
UN No. (ICAO/ANAC)	UN1219
UN No. (DPC)	Not regulated

14.2. UN proper shipping name

ISOPROPANOL SOLUTION,

14.3 Hazard class(es)

DOT Hazard class	3
ANTT Hazard class	Not regulated
TDG Hazard class	3
ADR/RID/ADN/ADG Hazard class	3
IMDG/ANTAQ Hazard class	3
ICAO/ANAC Hazard class/division	3
DPC Hazard class	Not regulated

14.4 Packing group

DOT Packing group	PG II
ANTT Packing group	Not regulated
TDG Packing group	PG II
ADR/RID/ADN/ADG Packing group	PG II
IMDG/ANTAQ Packing group	PG II
ICAO/ANAC Packing group	PG II
DPC Packing group	Not regulated

14.5 Environmental hazard

Yes

14.6 Special precautions

Not applicable

15. Regulatory Information

International inventories

USA (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Does not comply
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

Europe - REACH
All products supplied from the European Economic Area (EEA) are compliant with the REACH Regulation EC 1907/2006.For products supplied from the EEA, Schlumberger and/or its suppliers have pre-registered and is registering all of the substances that it and/or its suppliers manufactures in or imports into the EEA that are subject to Title II of the REACH Regulation. All products supplied from outside the EEA are subject to REACH only if imported into the EEA. The importer of the products must comply with REACH for each imported substance. Contact REACH@slb.com for REACH information.

IMPORTS, Canada
No import volume restrictions.

U.S. Federal and State Regulations

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

Chemical Name	SARA 302 / TPQs	SARA 313	CERCLA RQ
Propan-2-ol	N/A	1.0 %	N/A
Polyol compound	N/A	N/A	N/A
2-butoxyethanol	N/A	N/A	N/A
Quaternary ammonium salt	N/A	N/A	N/A
Methanol	N/A	1.0 %	5000 lb final RQ 2270 kg final RQ
Amine compounds	N/A	N/A	N/A

California Proposition 65

This product does not contain chemical[s] which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Chemical Name	California Proposition 65
Methanol 67-56-1	developmental toxicity

Canadian Classification

This Safety Data Sheet has been prepared in compliance with the Hazardous Products Regulations.

Brazilian Regulations

Brazil Regulation This SDS was prepared in accordance with Brazil law NBR 14725.

Federal Police Not determined

Army Not determined

ANVISA	Not determined
MTE (NR 15)	No information available

16. Other Information

Supersedes date	31/Jan/2017
Revision date	17/Sep/2018
Version	12
This SDS has been revised in the following section(s)	3, 15, 16

HMIS classification

Health	2
Flammability	3
Physical hazard	0
PPE	B

N/A - Not Applicable, N/D - Not Determined.

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