

# SAFETY DATA SHEET

**Product Trade Name:** MC MX 6-3063

**Revision Date:** 20-Jun-2018

**Revision Number:** 4

## 1. Identification

### 1.1. Product Identifier

**Product Trade Name:** MC MX 6-3063  
**Synonyms:** None  
**Chemical Family:** Blend  
**Internal ID Code:** MC001986

### 1.2 Recommended use and restrictions on use

**Application:** Corrosion Inhibitor  
**Uses advised against:** Consumer use

### 1.3 Manufacturer's Name and Contact Details

**Manufacturer/Supplier:**  
 Multi-Chem Group LLC  
 3000 N. Sam Houston Pkwy E., Houston, TX 77032  
 Phone: 1 281 871 4000

Halliburton Energy Services, Inc.  
 645 - 7th Ave SW Suite 1800  
 Calgary, AB  
 T2P 4G8  
 Canada

**Prepared By:** Chemical Stewardship  
 Telephone: 1-281-871-6107  
 e-mail: fdunexchem@halliburton.com

### 1.4. Emergency telephone number:

**Emergency Telephone Number:** 1-866-519-4752 or 1-760-476-3962  
 Global Incident Response Access Code: 334305  
 Contract Number: 14012

## 2. Hazards Identification

### 2.1 Classification in accordance with paragraph (d) of §1910.1200

Acute Oral Toxicity	Category 4 - H302
Acute toxicity - Dermal	Category 4 - H312
Acute inhalation toxicity - vapor	Category 4 - H332
Skin Corrosion / Irritation	Category 2 - H315
Serious Eye Damage/Irritation	Category 1 - H318
Skin Sensitization	Category 1 - H317
Reproductive Toxicity	Category 1B - H360

Specific Target Organ Toxicity - (Single Exposure)	Category 1 - H370
Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373
Acute Aquatic Toxicity	Category 1 - H400
Chronic Aquatic Toxicity	Category 2 - H411
Flammable liquids.	Category 3 - H226

## 2.2. Label Elements

### Hazard Pictograms



### Signal Word:

Danger

### Hazard Statements

H226 - Flammable liquid and vapor  
 H302 - Harmful if swallowed  
 H312 - Harmful in contact with skin  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H332 - Harmful if inhaled  
 H360 - May damage fertility or the unborn child  
 H370 - Causes damage to organs  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H400 - Very toxic to aquatic life  
 H411 - Toxic to aquatic life with long lasting effects

### Precautionary Statements

#### 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 surfaces, 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 only non-sparking tools  
 P243 - Take action to prevent static discharges.  
 P260 - Do not breathe 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  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P273 - Avoid release to the environment  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

#### Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P362 + P364 - Take off contaminated clothing and wash before reuse  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P370 + P378 - In case of fire: Use CO2, dry chemical, or foam  
 P391 - Collect spillage  
**Storage** P403 + P235 - Store in a well-ventilated place. Keep cool  
 P405 - Store locked up  
**Disposal** P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

**2.3 Hazards not otherwise classified**

None known

**3. Composition/information on Ingredients**

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Methanol	67-56-1	10 - 30%	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Repr. 1B (H360) STOT SE 1 (H370) Flam. Liq. 2 (H225)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	5 - 10%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400)
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[cocoalkyldimethyl, dichlorides	61788-79-2	1 - 5%	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	1 - 5%	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) STOT SE 3 (H335)
2-Mercaptoethanol	60-24-2	1 - 5%	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Skin Irrit. 2 (H315) Eye Corr. 1 (H318) Skin Sens. 1 (H317) STOT SE 3 (H335) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 4 (H227)

The exact percentage (concentration) of the composition has been withheld as proprietary.

**4. First Aid Measures**

#### **4.1. Description of first aid measures**

<b>Inhalation</b>	Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
<b>Eyes</b>	In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Seek immediate medical attention/advice. Suitable emergency eye wash facility should be immediately available
<b>Skin</b>	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.
<b>Ingestion</b>	Following ingestion, onset of symptoms may be delayed by 12 to 24 hours. Admission to hospital should be the first priority even if symptoms are absent. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.

#### **4.2 Most important symptoms/effects, acute and delayed**

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes severe eye irritation which may damage tissue. May cause allergic skin reaction. Potential reproductive hazard. May cause birth defects. May cause damage to internal organs. May cause damage to organs through prolonged or repeated exposure.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Gastric lavage or emesis should be performed as soon as possible to minimize absorption, and is recommended within 4 hours of ingestion. Ethanol may be given intravenously to prevent build-up of toxic effects of methanol metabolites. Visual disturbances and metabolic acidosis may occur and dialysis, preferably hemodialysis may be employed to treat these complications.
---------------------------	--

### **5. Fire-fighting measures**

#### **5.1. Extinguishing media**

##### **Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

##### **Extinguishing media which must not be used for safety reasons**

Do NOT spray pool fires directly with water. A solid stream of water directed into hot burning liquid can cause splattering.

#### **5.2 Specific hazards arising from the substance or mixture**

##### **Special exposure hazards in a fire**

Decomposition in fire may produce harmful gases.

#### **5.3 Special protective equipment and precautions for fire-fighters**

##### **Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

### **6. Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use appropriate protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Remove sources of ignition. Take precautionary measures against static discharges All equipment used when handling the product must be grounded Avoid contact with skin, eyes and clothing. See Section 8 for additional information

#### **6.2. Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**6.3. Methods and material for containment and cleaning up**

Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Remove ignition sources and work with non-sparking tools.

**7. Handling and storage****7.1. Precautions for safe handling****Handling Precautions**

Do not breathe dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation. Use appropriate protective equipment. Remove sources of ignition. Ground and bond containers when transferring from one container to another. Avoid contact with eyes, skin, or clothing.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Information**

Store in a cool well ventilated area. Keep from heat, sparks, and open flames.

**8. Exposure Controls/Personal Protection****8.1 Occupational Exposure Limits**

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Methanol	67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 250 ppm
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[ortho alkyldimethyl, dichlorides	61788-79-2	Not applicable	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable	Not applicable

**8.2 Appropriate engineering controls****Engineering Controls**

Ensure adequate ventilation, especially in confined areas

**8.3 Individual protection measures, such as personal protective equipment****Personal Protective Equipment**

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

**Respiratory Protection**

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

**Hand Protection**

Use gloves which are suitable for the chemicals present in this product as well as other environmental factors in the workplace.

**Skin Protection**

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

<b>Eye Protection</b>	Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles, Face-shield.
<b>Other Precautions</b>	Eyewash fountains and safety showers must be easily accessible.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State:</b> Liquid	<b>Color</b>	Clear to Slightly Hazy , Light Amber to Dark Amber
<b>Odor:</b> Pungent	<b>Odor Threshold:</b>	No information available

<u>Property</u> <u>Remarks/ - Method</u>	<u>Values</u>
<b>pH:</b>	5.24-6.24 (10% in 1:1 IPA:H2O)
<b>Freezing Point / Range</b>	-26.1 °C / -15 °F
<b>Melting Point / Range</b>	No data available
<b>Boiling Point / Range</b>	No data available
<b>Flash Point</b>	36.1 °C / 97 °F (SFCC)
<b>Flammability (solid, gas)</b>	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
<b>Evaporation rate</b>	
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	0.9652-0.9902 (20 °C/68 °F)
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

### 9.2. Other information

<b>VOC Content (%)</b>	No data available
<b>Liquid Density</b>	8.04-8.26 lbs/gal

## 10. Stability and Reactivity

### 10.1. Reactivity

Not expected to be reactive.

### 10.2. Chemical stability

Stable

### 10.3. Possibility of hazardous reactions

Will Not Occur

### 10.4. Conditions to avoid

Keep away from heat, sparks and flame.

### 10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong alkalis.

### 10.6. Hazardous decomposition products

Carbon dioxide. Oxides of nitrogen.

## 11. Toxicological Information

### 11.1 Information on likely routes of exposure

**Principle Route of Exposure** Inhalation. Eye contact. Skin contact. Ingestion.

### 11.2 Symptoms related to the physical, chemical and toxicological characteristics

#### Acute Toxicity

##### Inhalation

May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness. Harmful if inhaled.

##### Eye Contact

Causes serious eye damage.

##### Skin Contact

Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.

##### Ingestion

Ingestion of this product may cause blindness due to the presence of methanol. Harmful if swallowed.

**Chronic Effects/Carcinogenicity** May cause birth defects. Contains known or suspected reproductive toxins. May cause damage to organs through prolonged or repeated exposure.

### 11.3 Toxicity data

#### Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methanol	67-56-1	300 mg/kg-bw (human) < 790 to 13,000 mg/kg (rat)	1000 mg/kg-bw (human) 17,100 mg/kg (rabbit)	10 mg/L (human, vapor, 4h)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No data available	No data available	No data available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	329 mg/kg-bw (rat) (similar substance)	2930 mg/kg-bw (rabbit) (similar substance)	>45 mg/L (rat, 4 h, aerosol) (similar substance)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No data available	No data available	No data available
2-Mercaptoethanol	60-24-2	98 - 336 mg/kg (Rat)	112-251 mg/kg (Rabbit)	2 mg/L (Rat) 4h

Substances	CAS Number	Skin corrosion/irritation
Methanol	67-56-1	Non-irritating to the skin (Rabbit)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	May cause moderate skin irritation.
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	Skin, rabbit: Causes severe skin irritation with tissue destruction. (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	May cause irritation.
2-Mercaptoethanol	60-24-2	Skin, rabbit: Causes moderate skin irritation.

Substances	CAS Number	Serious eye damage/irritation
Methanol	67-56-1	Non-irritating to the eye (Rabbit)

Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	May cause moderate eye irritation.
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis(coco alkyldimethyl, dichlorides)	61788-79-2	Causes severe irritation and or burns (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	May cause eye irritation
2-Mercaptoethanol	60-24-2	Eye, rabbit: Causes severe eye irritation. Will damage tissue.

Substances	CAS Number	Skin Sensitization
Methanol	67-56-1	Did not cause sensitization on laboratory animals (guinea pig)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis(coco alkyldimethyl, dichlorides)	61788-79-2	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No data of sufficient quality are available.
2-Mercaptoethanol	60-24-2	Skin sensitizer in guinea pig.

Substances	CAS Number	Respiratory Sensitization
Methanol	67-56-1	No information available
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis(coco alkyldimethyl, dichlorides)	61788-79-2	No information available
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No data of sufficient quality are available.
2-Mercaptoethanol	60-24-2	No information available

Substances	CAS Number	Mutagenic Effects
Methanol	67-56-1	The weight of evidence from available in vitro and in vivo studies indicates that this substance is not expected to be mutagenic.
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis(coco alkyldimethyl, dichlorides)	61788-79-2	In vitro tests did not show mutagenic effects. (similar substances) In vivo tests did not show mutagenic effects.
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	The weight of evidence from available in vitro and in vivo studies indicates that this substance is not expected to be mutagenic.

Substances	CAS Number	Carcinogenic Effects
Methanol	67-56-1	No data of sufficient quality are available.
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available



Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides]	61788-79-2	Did not show carcinogenic effects in animal experiments (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	No information available

Substances	CAS Number	Reproductive toxicity
Methanol	67-56-1	Experiments have shown reproductive toxicity effects on laboratory animals
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides]	61788-79-2	Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility. (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No data of sufficient quality are available.
2-Mercaptoethanol	60-24-2	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Methanol	67-56-1	May cause disorder and damage to the Central Nervous System (CNS)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	May cause respiratory irritation.
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides]	61788-79-2	May cause respiratory irritation. (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	May cause respiratory irritation.
2-Mercaptoethanol	60-24-2	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Methanol	67-56-1	No data of sufficient quality are available.
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides]	61788-79-2	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	Causes damage to organs through prolonged or repeated exposure: (Liver) Heart

Substances	CAS Number	Aspiration hazard
Methanol	67-56-1	No information available
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl,	61788-79-2	Not applicable

dichlorides		
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable

## 12. Ecological Information

### 12.1. Toxicity

#### Ecotoxicity effects

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Methanol	67-56-1	EC50 (96 h) =22000 mg/L (Pseudokirchnerella subcapitata) NOEC (8 d) =8000 mg/L (Scenedesmus quadricauda)	LC50(96 h)=15400 mg/L (Lepomis macrochirus) EC50 (200h)=14536 mg/L (Oryzias latipes)	No information available	NOEC(21 d)=208 mg/L (Daphnia magna) EC50 (48h)=22200 mg/L (Daphnia obtuse)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available	No information available	No information available	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	ErC50 (96 h) 0.053 mg/L (Pseudokirchnerella subcapitata)	LC50 (96 h) 0.97 mg/L (Danio rerio) NOEC (33 d) 0.23 mg/L (Pimephales promelas)	EC50 (3 h) 17.95 mg/L (Activated sludge)	EC50 (48 h) 0.057 mg/L (Daphnia magna) NOEC (21 d) 0.021 mg/L (Daphnia magna)
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available	No information available	No information available	No information available
2-Mercaptoethanol	60-24-2	EC50 (72h) 12 mg/L (Desmodesmus subspicatus) EC50 (72h) 19 mg/L (Desmodesmus subspicatus)	LC50 (96h) 37 mg/L (Leuciscus idus) LC50 (96h) 46 mg/L (Leuciscus idus) LC50 (96h) 46-100 mg/L (Leuciscus idus) LC50 (96h) 46-100 mg/L (Carassius carassius auratis)	No information available	EC50 (48h) 0.4 mg/L (Daphnia magna) NOEC (21d) 0.0632 mg/L (Daphnia magna)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Methanol	67-56-1	Readily biodegradable (95% @ 20d)
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Readily biodegradable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	No information available
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	Product is not biodegradable (15-21% @ 28d)

### 12.3. Bioaccumulative potential

No information available

Substances	CAS Number	Log Pow

Methanol	67-56-1	Not Bioaccumulative; BCF=1
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	No information available
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	-0.056

#### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Methanol	67-56-1	No information available
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	No information available
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyldimethyl, dichlorides	61788-79-2	No information available
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	No information available
2-Mercaptoethanol	60-24-2	KOC = 1.325

#### 12.5 Other adverse effects

No information available

### 13. Disposal Considerations

#### 13.1. Waste treatment methods

**Disposal methods** Disposal should be made in accordance with federal, state, and local regulations.  
**Contaminated Packaging** Dispose of container according to national or local regulations.

### 14. Transport Information

#### US DOT

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Methanol, Organic alcohol)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Marine Pollutant  
**NAERG:** NAERG 128

#### Canadian TDG

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Methanol, Organic alcohol)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Marine Pollutant

#### IMDG/IMO

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Methanol, Organic alcohol)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Marine Pollutant  
**EMS:** EmS F-E, S-E

#### IATA/ICAO

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Methanol, Organic alcohol)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Marine Pollutant

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable  
**Special Precautions for User** None

## 15. Regulatory Information

### US Regulations

**US TSCA Inventory** All components listed on inventory or are exempt.

#### TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2
Methanol	67-56-1	Not applicable
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides]	61788-79-2	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable

#### EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Methanol	67-56-1	Not applicable
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides]	61788-79-2	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable

#### EPA SARA (311,312) Hazard Class

Flammable (gases, aerosols, liquids, or solids)  
 Acute toxicity (any route of exposure)  
 Skin Corrosion or Irritation  
 Respiratory or Skin Sensitization  
 Serious eye damage or eye irritation  
 Specific target organ toxicity (single or repeated exposure)  
 Reproductive toxicity

#### EPA SARA (313) Chemicals

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Methanol	67-56-1	1.0%	Not applicable
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides]	61788-79-2	Not applicable	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable	Not applicable

**EPA CERCLA/Superfund Reportable Spill Quantity**

Substances	CAS Number	CERCLA RQ
Methanol	67-56-1	5000 lb 2270 kg
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides	61788-79-2	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable

**EPA RCRA Hazardous Waste Classification**

Ignitability D001

**California Proposition 65**

Substances	CAS Number	California Proposition 65
Methanol	67-56-1	developmental toxicity
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides	61788-79-2	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable
2-Mercaptoethanol	60-24-2	Not applicable

**U.S. State Right-to-Know Regulations**

Substances	CAS Number	MA Right-to-Know Law	NJ Right-to-Know Law	PA Right-to-Know Law
Methanol	67-56-1	Present	Present	Environmental hazard
Fatty acids, tall-oil, reaction products with diethylenetriamine, acetates	68153-60-6	Not applicable	Not applicable	Not applicable
Quaternary ammonium compounds, (2-hydroxy-1,3-propanediyl)bis[coco alkyl dimethyl, dichlorides	61788-79-2	Not applicable	Not applicable	Not applicable
Amines, polyethylenepoly-, ethoxylated, phosphonomethylated, sodiumsalts	70900-16-2	Not applicable	Not applicable	Not applicable
2-Mercaptoethanol	60-24-2	Present	Present	Present

**NFPA Ratings:** Health 2, Flammability 2, Reactivity 0**HMS Ratings:** Health 2\*, Flammability 2, Physical Hazard 0, PPE: X**Canadian Regulations****Canadian Domestic Substances List (DSL)** All components listed on inventory or are exempt.**16. Other information****Preparation Information****Prepared By**Chemical Stewardship  
Telephone: 1-281-871-6107  
e-mail: fdunexchem@halliburton.com**Revision Date:**

20-Jun-2018

**Reason for Revision**

Update to Format

**Additional information**

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

bw – body weight

CAS – Chemical Abstracts Service

d - day

EC50 – Effective Concentration 50%

ErC50 – Effective Concentration growth rate 50%

h - hour

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL50 – Lethal Loading 50%

mg/kg – milligram/kilogram

mg/L – milligram/liter

mg/m<sup>3</sup> - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

NIOSH – National Institute for Occupational Safety and Health

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PEL – Permissible Exposure Limit

ppm – parts per million

STEL – Short Term Exposure Limit

TWA – Time-Weighted Average

UN – United Nations

w/w - weight/weight

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

**End of Safety Data Sheet**