

# SAFETY DATA SHEET

**Product Trade Name:** MC DF-7190

**Revision Date:** 08-May-2017

**Revision Number:** 6

## 1. Identification

### 1.1. Product Identifier

**Product Trade Name:** MC DF-7190  
**Synonyms:** None  
**Chemical Family:** Blend  
**Internal ID Code:** MC000731

### 1.2 Recommended use and restrictions on use

**Application:** Defoamer  
**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

Aspiration Toxicity	Category 1 - H304
Skin Corrosion / Irritation	Category 2 - H315
Serious Eye Damage/Irritation	Category 2 - H319
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335 + H336
Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373
Acute Aquatic Toxicity	Category 2 - H401
Flammable liquids.	Category 3 - H226

**2.2. Label Elements****Hazard Pictograms****Signal Word:**

Danger

**Hazard Statements**

H226 - Flammable liquid and vapor  
 H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H335 - May cause respiratory irritation  
 H336 - May cause drowsiness or dizziness  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H304 - May be fatal if swallowed and enters airways  
 H401 - Toxic to aquatic life

**Precautionary Statements****Prevention**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P233 - Keep container tightly closed  
 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P271 - Use only outdoors or in a well-ventilated area  
 P273 - Avoid release to the environment

**Response**

P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 P331 - Do NOT induce vomiting  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P332 + P313 - If skin irritation occurs: Get medical advice/attention  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P362 + P364 - Take off contaminated clothing and wash before reuse  
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 P312 - Call a POISON CENTER/doctor/physician if you feel unwell  
 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  
 P314 - Get medical attention/advice if you feel unwell  
 P370 + P378 - In case of fire: Use CO2, dry chemical, or foam

<b>Storage</b>	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed P403 + P235 - Store in a well-ventilated place. Keep cool
<b>Disposal</b>	P405 - Store locked up 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
Xylene	1330-20-7	60 - 100%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Flam. Liq. 3 (H226)
Ethyl benzene	100-41-4	10 - 30%	Acute Tox. 4 (H332) Eye Irrit. 2B (H320) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412) Flam. Liq. 2 (H225)

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>	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
<b>Eyes</b>	Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.
<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>	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**

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. Causes skin irritation. Causes eye irritation. May cause respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May cause damage to organs through prolonged or repeated exposure. Causes severe eye irritation.

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

<b>Notes to Physician</b>	Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration.
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**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
Xylene	1330-20-7	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	TWA: 100 ppm STEL: 150 ppm
Ethyl benzene	100-41-4	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	TWA: 20 ppm

### **8.2 Appropriate engineering controls**

#### **Engineering Controls**

Ensure adequate ventilation, especially in confined areas

### **8.3 Individual protection measures, such as personal protective equipment**

<b>Personal Protective Equipment</b>	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.
<b>Respiratory Protection</b>	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.
<b>Hand Protection</b>	Use gloves which are suitable for the chemicals present in this product as well as other environmental factors in the workplace.
<b>Skin Protection</b>	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>	Colorless to Light Amber , Clear to Slightly Hazy
<b>Odor:</b> Strong Organic	<b>Odor Threshold:</b>	No information available

<u>Property</u> Remarks/ - Method	<u>Values</u>
<b>pH:</b>	No data available
<b>Freezing Point / Range</b>	No data available
<b>Melting Point / Range</b>	No data available
<b>Boiling Point / Range</b>	No data available
<b>Flash Point</b>	31.4 °C / 88.5 °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>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	0.8671-0.8921 (20 °C/68 °F)
<b>Water Solubility</b>	No data available
<b>Solubility in other solvents</b>	Oil soluble
<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>	7.23-7.44 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 oxides. Silicon dioxide. Formaldehyde.

**11. Toxicological Information****11.1 Information on likely routes of exposure**

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

**11.2 Symptoms related to the physical, chemical and toxicological characteristics****Acute Toxicity****Inhalation**

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

**Eye Contact**

Causes serious eye irritation.

**Skin Contact**

Causes skin irritation.

**Ingestion**

May be fatal if swallowed and enters airways.

**Chronic Effects/Carcinogenicity** 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
Xylene	1330-20-7	3523 mg/kg bw (Rat)	>4200 mg/kg (rabbit)	27.6 mg/L (Rat, 4h, vapor)
Ethyl benzene	100-41-4	3500 mg/kg-bw (rat)	15400 mg/kg (rabbit)	17.8 mg/L (Rat, 4h, vapor)

Substances	CAS Number	Skin corrosion/irritation
Xylene	1330-20-7	Causes skin irritation.
Ethyl benzene	100-41-4	Causes mild skin irritation

Substances	CAS Number	Serious eye damage/irritation
Xylene	1330-20-7	Causes moderate eye irritation (Rabbit)
Ethyl benzene	100-41-4	Causes mild eye irritation.

Substances	CAS Number	Skin Sensitization
Xylene	1330-20-7	Did not cause sensitization on laboratory animals (mouse)
Ethyl benzene	100-41-4	Not regarded as a sensitizer.

Substances	CAS Number	Respiratory Sensitization
Xylene	1330-20-7	No information available
Ethyl benzene	100-41-4	No information available

Substances	CAS Number	Mutagenic Effects
Xylene	1330-20-7	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Ethyl benzene	100-41-4	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Xylene	1330-20-7	Did not show carcinogenic effects in animal experiments
Ethyl benzene	100-41-4	Not regarded as carcinogenic.

Substances	CAS Number	Reproductive toxicity
Xylene	1330-20-7	Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility.
Ethyl benzene	100-41-4	Animal testing did not show any effects on fertility. Adverse developmental effects were only observed at maternally toxic doses.

Substances	CAS Number	STOT - single exposure
Xylene	1330-20-7	May cause respiratory irritation.
Ethyl benzene	100-41-4	May cause anesthetic or narcotic effects. May cause disorder and damage to the Central Nervous System (CNS) May cause headache, dizziness, and other central nervous system effects.

Substances	CAS Number	STOT - repeated exposure
Xylene	1330-20-7	No significant toxicity observed in animal studies at concentration requiring classification.
Ethyl benzene	100-41-4	Causes damage to organs through prolonged or repeated exposure if inhaled: Ears

Substances	CAS Number	Aspiration hazard
Xylene	1330-20-7	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Ethyl benzene	100-41-4	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

## 12. Ecological Information

### 12.1. Toxicity

#### Ecotoxicity effects

Toxic to aquatic life.

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Xylene	1330-20-7	No information available	NOEC (56d) > 1.3 mg/L (Oncorhynchus mykiss) LC50 (96h) 2.6 mg/L (Oncorhynchus mykiss)	No information available	No information available
Ethyl benzene	100-41-4	EC50 (96 h) 3.6 mg/L (Pseudokirchneriella subcapitata) EC50 (8 d) 4.8 mg/L (Pseudokirchneriella subcapitata)	LC50 (96 h) 4.2 mg/L (Oncorhynchus mykiss)	EC50 (24h) 96 mg/L (Nitrosomonas sp.)	EC50 (48 h) 1.8 mg/L (Daphnia magna) NOEC (7 d) 0.96 mg/L (Ceriodaphnia dubia)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Xylene	1330-20-7	Readily biodegradable (87.8% @ 28d)
Ethyl benzene	100-41-4	Readily biodegradable (79% @ 28d)

### 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Xylene	1330-20-7	Log Pow 2.8-3.22.8-3.22.8
Ethyl benzene	100-41-4	LogPow 3.6

### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Xylene	1330-20-7	KOC = 537
Ethyl benzene	100-41-4	KOC = 520

**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** Follow all applicable national or local regulations.

**14. Transport Information****US DOT**

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Xylene, Ethylbenzene)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Not applicable  
**NAERG:** NAERG 128

**Canadian TDG**

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Xylene, Ethylbenzene)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Not applicable

**IMDG/IMO**

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Xylene, Ethylbenzene)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Not applicable  
**EMS:** EmS F-E, S-E

**IATA/ICAO**

**UN Number** UN1993  
**UN proper shipping name:** Flammable Liquid, N.O.S. (Contains Xylene, Ethylbenzene)  
**Transport Hazard Class(es):** 3  
**Packing Group:** III  
**Environmental Hazards:** Not applicable

**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
Xylene	1330-20-7	Not applicable
Ethyl benzene	100-41-4	Not applicable

**EPA SARA Title III Extremely Hazardous Substances**

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Xylene	1330-20-7	Not applicable
Ethyl benzene	100-41-4	Not applicable

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

Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

**EPA SARA (313) Chemicals**

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Xylene	1330-20-7	1.0%	Not applicable
Ethyl benzene	100-41-4	0.1%	Not applicable

**EPA CERCLA/Superfund Reportable Spill Quantity**

Substances	CAS Number	CERCLA RQ
Xylene	1330-20-7	100 lb 45.4 kg
Ethyl benzene	100-41-4	1000 lb 454 kg

**EPA RCRA Hazardous Waste Classification**

Ignitability D001

**California Proposition 65**

Substances	CAS Number	California Proposition 65
Xylene	1330-20-7	Not applicable
Ethyl benzene	100-41-4	carcinogen

**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
Xylene	1330-20-7	Present	2014	Environmental hazard
Ethyl benzene	100-41-4	Present	0851	Environmental hazard

**NFPA Ratings:**

Health 2, Flammability 3, Reactivity 0

**HMIS Ratings:**

Health 2\*, Flammability 3, Physical Hazard 0, PPE: X

**Canadian Regulations**

**Canadian Domestic Substances** All components listed on inventory or are exempt.  
List (DSL)

**16. Other information****Preparation Information****Prepared By**

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

**Revision Date:**

08-May-2017

**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**

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**End of Safety Data Sheet**