

SAFETY DATA SHEET

Product Trade Name: MC MX 491-3

Revision Date: 03-Nov-2017

Revision Number: 8

1. Identification

1.1. Product Identifier

Product Trade Name: MC MX 491-3
Synonyms: None
Chemical Family: Blend
Internal ID Code: MC001617

1.2 Recommended use and restrictions on use

Application: Paraffin 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

Aspiration Toxicity	Category 1 - H304
Acute Oral Toxicity	Category 4 - H302
Skin Corrosion / Irritation	Category 1 - H314
Serious Eye Damage/Irritation	Category 1 - H318
Carcinogenicity	Category 1B - H350
Reproductive Toxicity	Category 1B - H360
Specific Target Organ Toxicity - (Single Exposure)	Category 1 - H370; Category 3 - H335

Specific Target Organ Toxicity - (Repeated Exposure)	Category 2 - H373
Acute Aquatic Toxicity	Category 1 - H400
Chronic Aquatic Toxicity	Category 3 - H412
Flammable liquids.	Category 2 - H225

2.2. Label Elements

Hazard Pictograms



Signal Word:

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor
 H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H350 - May cause cancer
 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
 H412 - Harmful 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
 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
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all

	contaminated clothing. Rinse skin with water [or shower]. P363 - Wash contaminated clothing before reuse P310 - Immediately call a POISON CENTER or doctor/physician 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 P370 + P378 - In case of fire: Use CO2, dry chemical, or foam P391 - Collect spillage
Storage	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed 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
Xylene	1330-20-7	30 - 60%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Flam. Liq. 3 (H226)
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)
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)
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	10 - 30%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1C (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	5 - 10%	Acute Tox. 4 (H302) Skin Corr. 1C (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Sulfuric acid	7664-93-9	0.1 - 1%	Skin Corr. 1A (H314) Eye Corr. 1 (H318) Carc. 1 (H350) STOT SE 3 (H335) Aquatic Acute 3 (H402)

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

4. First Aid Measures

4.1. Description of first aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Eyes	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
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately.
Ingestion	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. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. Causes severe skin irritation with tissue destruction. Causes severe eye irritation which may damage tissue. Carcinogen. Potential reproductive hazard. May cause birth defects. May cause damage to internal organs. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

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

Notes to Physician	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. 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 ³	TWA: 100 ppm STEL: 150 ppm
Methanol	67-56-1	TWA: 200 ppm TWA: 260 mg/m ³	TWA: 200 ppm STEL: 250 ppm
Ethyl benzene	100-41-4	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 20 ppm
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable	Not applicable
Sulfuric acid	7664-93-9	TWA: 1 mg/m ³	TWA: 0.2 mg/m ³

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

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid	Color	Clear to Slightly Hazy , Light Amber to Dark Amber
Odor: Organic	Odor Threshold:	No information available

<u>Property</u> <u>Remarks/ - Method</u>	<u>Values</u>
pH:	No data available (10% in 1:1 IPA:H2O)
Freezing Point / Range	-40 °C / -40 °F
Melting Point / Range	No data available
Boiling Point / Range	No data available
Flash Point	8.9 °C / 48 °F (SFCC)
Flammability (solid, gas)	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	0.8702-0.8952 (20 °C/68 °F)
Water Solubility	No data available
Solubility in other solvents	Oil soluble
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%)	No data available
Liquid Density	7.25-7.46 lb/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

Oxides of sulfur. Carbon oxides. Oxides of nitrogen.

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

Principle Route of Exposure Skin contact. Inhalation. Eye 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. May cause respiratory irritation.

Eye Contact

Causes serious eye damage.

Skin Contact

Causes severe burns.

Ingestion

Ingestion of this product may cause blindness due to the presence of methanol. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity Contains known or suspected carcinogens. 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
Xylene	1330-20-7	3523 mg/kg bw (Rat)	>4200 mg/kg (rabbit)	27.6 mg/L (Rat, 4h, vapor)
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, 4h, vapor)
Ethyl benzene	100-41-4	3500 mg/kg-bw (rat)	15400 mg/kg (rabbit)	17.8 mg/L (Rat, 4h, vapor)
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	530 mg/kg (Rat) 775 mg/kg (Rat) 1350 mg/kg (Rat) 1470 mg/kg (Rat) (similar substance)	530 mg/kg (Rat) 2000 mg/kg (Rabbit)	No data available
Benzenesulfonic acid, mono-C10-16-alkyl derivitives, compounds with ethanolamine	68910-32-7	1080 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rat) (similar substance)	No data available
Sulfuric acid	7664-93-9	2140 mg/kg-bw (rat)	No data available	No data available

Substances	CAS Number	Skin corrosion/irritation
Xylene	1330-20-7	Causes skin irritation.
Methanol	67-56-1	Non-irritating to the skin (Rabbit)
Ethyl benzene	100-41-4	Causes mild skin irritation
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Skin, rabbit: Causes burns
Benzenesulfonic acid, mono-C10-16-alkyl derivitives, compounds with ethanolamine	68910-32-7	Causes severe skin irritation with tissue destruction. (Rabbit) (similar substances)

Sulfuric acid	7664-93-9	Causes severe burns
Substances	CAS Number	Serious eye damage/irritation
Xylene	1330-20-7	Causes moderate eye irritation (Rabbit)
Methanol	67-56-1	Non-irritating to the eye (Rabbit)
Ethyl benzene	100-41-4	Causes mild eye irritation.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Eye, rabbit: Causes eye burns
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Causes severe eye irritation which may damage tissue. (Rabbit) (similar substances)
Sulfuric acid	7664-93-9	Causes serious eye damage

Substances	CAS Number	Skin Sensitization
Xylene	1330-20-7	Did not cause sensitization on laboratory animals (mouse)
Methanol	67-56-1	Did not cause sensitization on laboratory animals (guinea pig)
Ethyl benzene	100-41-4	Not regarded as a sensitizer.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Did not cause sensitization on laboratory animals (guinea pig)
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Sulfuric acid	7664-93-9	Not regarded as a sensitizer.

Substances	CAS Number	Respiratory Sensitization
Xylene	1330-20-7	No information available
Methanol	67-56-1	No information available
Ethyl benzene	100-41-4	No information available
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	No information available
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	No information available
Sulfuric acid	7664-93-9	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.
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.
Ethyl benzene	100-41-4	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)
Sulfuric acid	7664-93-9	Not regarded as mutagenic.

Substances	CAS Number	Carcinogenic Effects
Xylene	1330-20-7	Did not show carcinogenic effects in animal experiments
Methanol	67-56-1	No data of sufficient quality are available.
Ethyl benzene	100-41-4	Not regarded as carcinogenic.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	No information available
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not regarded as carcinogenic. (similar substances)
Sulfuric acid	7664-93-9	This substance is a potential carcinogen.

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.
Methanol	67-56-1	Experiments have shown reproductive toxicity effects on laboratory animals

Ethyl benzene	100-41-4	Animal testing did not show any effects on fertility. Adverse developmental effects were only observed at maternally toxic doses.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	No data of sufficient quality are available.
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Sulfuric acid	7664-93-9	Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Xylene	1330-20-7	May cause respiratory irritation.
Methanol	67-56-1	May cause disorder and damage to the Central Nervous System (CNS)
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.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	May cause respiratory irritation.
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	May cause respiratory irritation. (similar substances)
Sulfuric acid	7664-93-9	May cause respiratory irritation. No information available

Substances	CAS Number	STOT - repeated exposure
Xylene	1330-20-7	No significant toxicity observed in animal studies at concentration requiring classification.
Methanol	67-56-1	No data of sufficient quality are available.
Ethyl benzene	100-41-4	Causes damage to organs through prolonged or repeated exposure if inhaled: Ears
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	No data of sufficient quality are available.
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Sulfuric acid	7664-93-9	Not applicable due to corrosivity of the substance.

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.
Methanol	67-56-1	Not applicable
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.
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable
Sulfuric acid	7664-93-9	Not applicable

12. Ecological Information

12.1. Toxicity

Ecotoxicity effects

Very toxic to aquatic life. Harmful 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
Xylene	1330-20-7	EC50 (72h) = 4.9 mg/L (Pseudokirchnerella subcapitata)	NOEC (56d) > 1.3 mg/L (Oncorhynchus mykiss) LC50 (96h) 2.6 mg/L (Oncorhynchus mykiss)	No information available	LC50 (24h) = 1mg/L (Daphnia magna)
Methanol	67-56-1	EC50 (96 h) =22000 mg/L (Pseudokirchnerella subcapitata) NOEC (8 d) =8000 mg/L	LC50 (96 h) =15400 mg/L (Lepomis macrochirus) EC50 (200 h) =14536 mg/L (Oryzias latipes)	IC50 (3h) > 1000 mg/L (activated sludge)	EC50 (96 h) =18260 mg/L (Daphnia magna) NOEC (21 d) =208 mg/L (Daphnia magna)

		(Scenedesmus quadricauda)			
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)
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	EC50 (96h) 170 mg/L (Selenastrum capricornutum)	LC50 (96h) 3 mg/L (Oncorhynchus mykiss) NOEC (90d) 0.25 mg/L (Tilapia mossambica) (similar substance)	No information available	EC50 (48h) 2.9 mg/L (Daphnia magna) EC50 (24h) 5.9 mg/L (Daphnia magna)
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	EC50 (72h) 5.7 mg/L (Scenedesmus quadricauda) (similar substance) NOEC (15d) 3.1 mg/L (Chlorella kessleri) (similar substance)	LC50 (96h) 1.67 mg/L (Lepomis macrochirus) (similar substance) NOEC (90d) 0.25 mg/L (Tilapia mossambica) (similar substance)	No information available	LC50 (96h) 3.5 mg/L (Hyalella azteca) (similar substance) EC50 (48h) 2 mg/L (Brachionus calyciflorus) (similar substance)
Sulfuric acid	7664-93-9	No information available	LC50 (96 h) 16 mg/L (Lepomis macrochirus) LC50 (96 h) 42 mg/L (Gambusia affinis)	No information available	EC50 (24 h) 29 mg/L (Daphnia magna) EC50 (48 h) 42.5 mg/L (Pandalus montagui)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Xylene	1330-20-7	Readily biodegradable (87.8% @ 28d)
Methanol	67-56-1	Readily biodegradable (95% @ 20d)
Ethyl benzene	100-41-4	Readily biodegradable (79% @ 28d)
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	(94% @ 28d)
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Readily biodegradable (>90% @ 21d)
Sulfuric acid	7664-93-9	Readily biodegradable

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Xylene	1330-20-7	Log Pow 2.8-3.22.8-3.22.8
Methanol	67-56-1	Not Bioaccumulative; BCF=1
Ethyl benzene	100-41-4	LogPow 3.6
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Log Pow = 4.15
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	1.51 BCF = 2-1000
Sulfuric acid	7664-93-9	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Xylene	1330-20-7	KOC = 537
Methanol	67-56-1	No information available
Ethyl benzene	100-41-4	KOC = 520
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	No information available
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	KOC = 0.2725
Sulfuric acid	7664-93-9	No information available

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 UN2924
UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Contains Xylene, Benzenesulfonic Acid)
Transport Hazard Class(es): 3 (8)
Packing Group: II
Environmental Hazards: Marine Pollutant
NAERG: NAERG 132

Canadian TDG

UN Number UN2924
UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Contains Xylene, Benzenesulfonic Acid)
Transport Hazard Class(es): 3 (8)
Packing Group: II
Environmental Hazards: Marine Pollutant

IMDG/IMO

UN Number UN2924
UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Contains Xylene, Benzenesulfonic Acid)
Transport Hazard Class(es): 3 (8)
Packing Group: II
Environmental Hazards: Marine Pollutant
EMS: EmS F-E, S-C

IATA/ICAO

UN Number UN2924
UN proper shipping name: Flammable Liquid, Corrosive, N.O.S. (Contains Xylene, Benzenesulfonic Acid)
Transport Hazard Class(es): 3 (8)
Packing Group: II
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
Xylene	1330-20-7	Not applicable
Methanol	67-56-1	Not applicable
Ethyl benzene	100-41-4	Not applicable
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable
Sulfuric acid	7664-93-9	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous
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		Substances
Xylene	1330-20-7	Not applicable
Methanol	67-56-1	Not applicable
Ethyl benzene	100-41-4	Not applicable
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable
Sulfuric acid	7664-93-9	1000 lb

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
Methanol	67-56-1	1.0%	Not applicable
Ethyl benzene	100-41-4	0.1%	Not applicable
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable	Not applicable
Sulfuric acid	7664-93-9	1.0%	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Xylene	1330-20-7	100 lb 45.4 kg
Methanol	67-56-1	5000 lb 2270 kg
Ethyl benzene	100-41-4	1000 lb 454 kg
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable
Sulfuric acid	7664-93-9	1000 lb 454 kg

EPA RCRA Hazardous Waste Classification

Ignitability D001
Corrosivity D002

California Proposition 65

Substances	CAS Number	California Proposition 65
Xylene	1330-20-7	Not applicable
Methanol	67-56-1	developmental toxicity
Ethyl benzene	100-41-4	carcinogen
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable
Sulfuric acid	7664-93-9	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
Methanol	67-56-1	Present	1222	Environmental hazard
Ethyl benzene	100-41-4	Present	0851	Environmental hazard
C10-C16 Alkylbenzenesulfonic acid	68584-22-5	Not applicable	Not applicable	Not applicable
Benzenesulfonic acid, mono-C10-16-alkyl derivatives, compounds with ethanolamine	68910-32-7	Not applicable	Not applicable	Not applicable

Sulfuric acid	7664-93-9	Extraordinarily hazardous	1761	Environmental hazard
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NFPA Ratings: Health 3, Flammability 3, Reactivity 0
HMIS Ratings: Health 3*, Flammability 3, 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: 03-Nov-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/m³ - 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/

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