multi-chem®
A HALLIBURTON SERVICE

SAFETY DATA SHEET

Product Trade Name: **MC EB-1410**

Revision Date: 10-May-2016 **Revision Number:** 3

1. Identification

1.1. Product Identifier

Product Trade Name: MC EB-1410
Synonyms None
Chemical Family: Blend
Internal ID Code MC000767

1.2 Recommended use and restrictions on use

Application: Emulsion Breaker
Uses advised against Consumer use

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier
Multi-Chem Group LLC
424 S Chadbourne St, San Angelo, TX 76903
Phone: 1 325 223 6200
Emergency Phone Number: 1-866-519-4752 (US, Canada, Mexico) or 1-760-476-3962

Halliburton Energy Services
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

2. Hazard(s) Identification

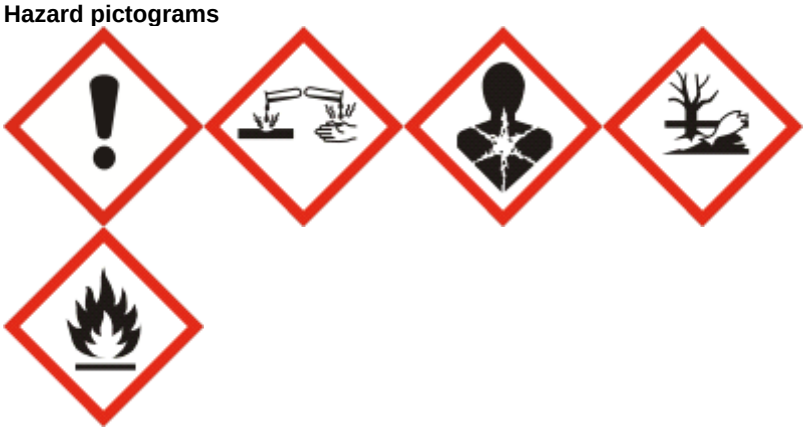
2.1 Classification in accordance with paragraph (d) of §1910.1200

Aspiration Toxicity	Category 1 - H304
Skin Corrosion / Irritation	Category 2 - H315
Serious Eye Damage/Irritation	Category 1 - H318
Germ Cell Mutagenicity	Category 1B - H340
Carcinogenicity	Category 1B - H350
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335 + H336
Specific Target Organ Toxicity - (Repeated Exposure)	Category 1 - H372
Acute Aquatic Toxicity	Category 2 - H401

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
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects
H350 - May cause cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H401 - 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/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
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
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P362 - 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 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
Light aromatic solvent	64742-95-6	60 - 100%	Skin Irrit. 2 (H315) Muta. 1 (H340) Carc. 1B (H350) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412) Flam. Liq. 3 (H226)
1,2,4 Trimethylbenzene	95-63-6	10 - 30%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) STOT RE 1 (H372) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411) Flam. Liq. 3 (H226)
Heavy aromatic petroleum naphtha	64742-94-5	10 - 30%	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)
Quaternary ammonium compound	PROPRIETARY	5 - 10%	Skin Irrit. 2 (H315) Eye Corr. 1 (H318)
Isopropanol	67-63-0	1 - 5%	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Xylene	1330-20-7	1 - 5%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Asp. Tox. 1 (H304) Aquatic Acute 2 (H401) Flam. Liq. 3 (H226)
Naphthalene	91-20-3	1 - 5%	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Sol. 2 (H228)

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

4. First-Aid Measures

4.1. Description of first aid measures

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention/advice.

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 15 minutes. Get medical attention.

Ingestion Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. 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 severe eye irritation which may damage tissue. May cause heritable genetic damage. Carcinogen. May cause respiratory irritation. May cause headache, dizziness, and other central nervous system effects. Prolonged or repeated exposure may cause damage to organs.

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

Notes to Physician Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration.

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
Light aromatic solvent	64742-95-6	Not applicable	Not applicable
1,2,4 Trimethylbenzene	95-63-6	Not applicable	25 ppm
Heavy aromatic petroleum naphtha	64742-94-5	Not applicable	Not applicable
Quaternary ammonium compound	PROPRIETARY	Not applicable	Not applicable
Isopropanol	67-63-0	TWA: 400 ppm	TWA: 200 ppm STEL: 400 ppm
Xylene	1330-20-7	100 ppm	TWA: 100 ppm STEL: 150 ppm
Naphthalene	91-20-3	10 ppm	TWA: 10 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

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.

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**	Light Amber to Dark Amber , Clear to Slightly Hazy
Odor:	Aromatic hydrocarbon	**Odor Threshold:**	No information available

Property Remarks/ - Method	Values
pH:	4.95-9.95 (10% in 1:1 IPA:H2O)
Freezing Point / Range	No data available
Melting Point / Range	No data available
Boiling Point / Range	No data available
Flash Point	26.1 °C / 79 °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	0.8781-0.9031
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	7.32-7.53 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 oxidizing agents Strong acids.

10.6. Hazardous decomposition products
Carbon oxides. Oxides of nitrogen. Oxides of sulfur.

11. Toxicological Information

11.1 Information on likely routes of exposure
Principle Route of Exposure Eye contact. Skin contact. Ingestion. Inhalation.

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 damage.

Skin Contact Causes skin irritation.

Ingestion May be fatal if swallowed and enters airways. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic Effects/Carcinogenicity May cause heritable genetic damage. Contains known or suspected carcinogens. Causes 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
Light aromatic solvent	64742-95-6	8400 mg/kg (Rat) >5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4h 3400 ppm (Rat) 4h >8.53 mg/L (Rat) 4h
1,2,4 Trimethylbenzene	95-63-6	3415 mg/kg-bw (rat)	>3440 mg/kg-bw (rat) (similar substance)	>10.2 mg/L (rat, 4 h, aerosol) (similar substance)
Heavy aromatic petroleum naphtha	64742-94-5	>5000 mg/kg-bw (rat)	>2000 mg/kg-bw (rabbit)	> 4.778 mg/L (rat, 4 h, vapour, saturated)
Quaternary ammonium compound	PROPRIETARY	No data available	No data available	No data available
Isopropanol	67-63-0	4396 mg/kg (Rat) 5840 mg/kg (Rat) 3600 mg/kg (Mouse)	12,800 mg/kg (Rat) 12,870 mg/kg (Rabbit) 6280 mg/kg (Rabbit)	72.6 mg/L (Rat) 4h > 10,000 mg/L (Rat) 6h
Xylene	1330-20-7	3523 mg/kg (Rat)	> 4200 mg/kg (Rabbit)	27.6 mg/L (Rat) 4h
Naphthalene	91-20-3	490 mg/kg (Rat) 1110 mg/kg (Rat)	1120 mg/kg (Rabbit) 20 g/kg (Rabbit)	340 mg/m³ (Rat) 1 h

Substances	CAS Number	Skin corrosion/irritation
Light aromatic solvent	64742-95-6	Causes moderate skin irritation. (Rabbit)
1,2,4 Trimethylbenzene	95-63-6	Irritating to skin. (Rabbit) Causes moderate skin irritation. (similar substances)
Heavy aromatic petroleum naphtha	64742-94-5	Non-irritating to the skin (Rabbit) (similar substances)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	Non-irritating to the skin (Rabbit)
Xylene	1330-20-7	Causes skin irritation.
Naphthalene	91-20-3	Non-irritating to the skin (Rabbit)

Substances	CAS Number	Serious eye damage/irritation
Light aromatic solvent	64742-95-6	Non-irritating to rabbit's eye
1,2,4 Trimethylbenzene	95-63-6	Irritating to eyes (Rabbit) May cause moderate eye irritation.
Heavy aromatic petroleum naphtha	64742-94-5	Non-irritating to rabbit's eye (similar substances)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	Causes moderate eye irritation (Rabbit)
Xylene	1330-20-7	Causes moderate eye irritation (Rabbit)
Naphthalene	91-20-3	May cause mechanical irritation to eye. (human) Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Light aromatic solvent	64742-95-6	Did not cause sensitization on laboratory animals (guinea pig)
1,2,4 Trimethylbenzene	95-63-6	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Heavy aromatic petroleum naphtha	64742-94-5	Patch test on human volunteers did not demonstrate sensitization properties (guinea pig) Did not cause sensitization on laboratory animals (similar substances)
Quaternary ammonium compound	PROPRIETARY	No information available

Isopropanol	67-63-0	Did not cause sensitization on laboratory animals (guinea pig)
Xylene	1330-20-7	Did not cause sensitization on laboratory animals (mouse)
Naphthalene	91-20-3	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Light aromatic solvent	64742-95-6	No information available
1,2,4 Trimethylbenzene	95-63-6	No information available
Heavy aromatic petroleum naphtha	64742-94-5	No information available
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	No information available
Xylene	1330-20-7	No information available
Naphthalene	91-20-3	No information available

Substances	CAS Number	Mutagenic Effects
Light aromatic solvent	64742-95-6	Some in vivo tests have shown mutagenic effects. In vitro tests have shown mutagenic effects
1,2,4 Trimethylbenzene	95-63-6	In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects
Heavy aromatic petroleum naphtha	64742-94-5	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects.
Xylene	1330-20-7	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.
Naphthalene	91-20-3	In vitro tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Light aromatic solvent	64742-95-6	Contains a known or suspected carcinogen
1,2,4 Trimethylbenzene	95-63-6	No information available
Heavy aromatic petroleum naphtha	64742-94-5	Did not show carcinogenic effects in animal experiments (similar substances) Not regarded as carcinogenic.
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	Did not show carcinogenic effects in animal experiments
Xylene	1330-20-7	Did not show carcinogenic effects in animal experiments
Naphthalene	91-20-3	Substances which should be regarded as if they are carcinogenic to man

Substances	CAS Number	Reproductive toxicity
Light aromatic solvent	64742-95-6	No data of sufficient quality are available.
1,2,4 Trimethylbenzene	95-63-6	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances) Adverse developmental effects were only observed at maternally toxic doses.
Heavy aromatic petroleum naphtha	64742-94-5	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification.
Xylene	1330-20-7	Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility.
Naphthalene	91-20-3	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Light aromatic solvent	64742-95-6	May cause headache, dizziness, and other central nervous system effects.
1,2,4 Trimethylbenzene	95-63-6	May cause respiratory irritation. No information available
Heavy aromatic petroleum naphtha	64742-94-5	May cause disorder and damage to the Central Nervous System (CNS)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	May cause headache, dizziness, and other central nervous system effects.
Xylene	1330-20-7	May cause respiratory irritation.
Naphthalene	91-20-3	No data of sufficient quality are available.

Substances	CAS Number	STOT - repeated exposure
Light aromatic solvent	64742-95-6	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
1,2,4 Trimethylbenzene	95-63-6	Causes damage to organs through prolonged or repeated exposure if inhaled: (Hematopoietic System) Central Nervous System (CNS) (Central nervous system)

Heavy aromatic petroleum naphtha	64742-94-5	No significant toxicity observed in animal studies at concentration requiring classification.
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Xylene	1330-20-7	No significant toxicity observed in animal studies at concentration requiring classification.
Naphthalene	91-20-3	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Light aromatic solvent	64742-95-6	May be fatal if swallowed and enters airways
1,2,4 Trimethylbenzene	95-63-6	Risk of serious damage to the lungs (by aspiration) Aspiration can be a hazard if this material is swallowed.
Heavy aromatic petroleum naphtha	64742-94-5	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	Not applicable
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.
Naphthalene	91-20-3	No information available

12. Ecological Information

12.1. Toxicity

Ecotoxicity effects

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

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Light aromatic solvent	64742-95-6	EL50 (72h) 3.1 mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) 1.03 mg/L (Oncorhynchus mykiss)	No information available	EC50 (48h) 1.2 mg/L (Daphnia magna)
1,2,4 Trimethylbenzene	95-63-6	No information available	LC50 (96 h) 7.72 mg/L (Pimephales promelas)	No information available	LC50 (48 h) 3.6 mg/L (Daphnia magna) Chronic Value (ChV) (16 d) 0.367 mg/L (Daphnia sp.)
Heavy aromatic petroleum naphtha	64742-94-5	EC50 (72h) 7.8 mg/L (Pseudokirchneriella subcapitata)	LL50 (96 h) =3.6 mg/L (Orcorhynchus mykiss) LC50 (96 h) =357.7 mg/L (Scophthalmus maximus)	No information available	EL50 (48h) 1.1 mg/L (Daphnia magna) (similar substance)
Quaternary ammonium compound	PROPRIETARY	No information available	No information available	No information available	No information available
Isopropanol	67-63-0	EC50 (72h) > 1000 mg/L (Desmodesmus subspicatus) EC50 (7d) 1800 mg/L (Scenedesmus quadricauda)	LC50 (96h) 9640 mg/L (Pimephales promelas) LC50 (7d) 7060 mg/L (Poecilia reticulata)	TT (16h) 1050 mg/L (Pseudomonas putida)	EC50 (48h) 13,299 mg/L (Daphnia magna) EC50 (24h) > 10,000 mg/L (Daphnia magna)
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
Naphthalene	91-20-3	EC50 (72 h) =0.4 mg/L (Skeletonema costatum)	LC50 (96 h) =1.6 mg/L (Oncorhynchus mykiss) NOAEC (40 d) =0.37 mg/L (Oncorhynchus kisutch)	IC50 (24 h) =29 mg/L (Nitrosomonas sp.)	EC50 (48 h) =2.16 mg/L (Daphnia magna) NOAEC (125 d) =0.59 mg/L (Daphnia pulex)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability

Light aromatic solvent	64742-95-6	(77.05% @ 28d)
1,2,4 Trimethylbenzene	95-63-6	Readily biodegradable
Heavy aromatic petroleum naphtha	64742-94-5	Readily biodegradable (58% @ 28d)
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	Readily biodegradable (53% @ 5d)
Xylene	1330-20-7	Readily biodegradable (87.8% @ 28d)
Naphthalene	91-20-3	Readily biodegradable (100% @ 7d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Light aromatic solvent	64742-95-6	3.20 - 3.63 BCF = 119 - 142
1,2,4 Trimethylbenzene	95-63-6	LogPow 3.42
Heavy aromatic petroleum naphtha	64742-94-5	LogPow 5.2
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	0.05
Xylene	1330-20-7	2.77 - 3.15 BCF = 25.9
Naphthalene	91-20-3	LogPow 3.3

12.4. Mobility in soil

Substances	CAS Number	Mobility
Light aromatic solvent	64742-95-6	KOC = 372 - 617
1,2,4 Trimethylbenzene	95-63-6	No information available
Heavy aromatic petroleum naphtha	64742-94-5	No information available
Quaternary ammonium compound	PROPRIETARY	No information available
Isopropanol	67-63-0	KOC = 1.5
Xylene	1330-20-7	KOC = 537
Naphthalene	91-20-3	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 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 Light Aromatic solvent, Trimethylbenzene)
Transport Hazard Class(es): 3
Packing Group: III
Environmental Hazards: Marine Pollutant
NAERG: NAERG 128

Canadian TDG

UN Number Not restricted
UN proper shipping name: Not approved for transport in Canada
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

Not approved for transport in Canada

IMDG/IMO

UN Number UN1993
UN proper shipping name: Flammable Liquid, N.O.S. (Contains Light Aromatic solvent, Trimethylbenzene)
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 Light Aromatic solvent, Trimethylbenzene)
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
Light aromatic solvent	64742-95-6	Not applicable
1,2,4 Trimethylbenzene	95-63-6	Not applicable
Heavy aromatic petroleum naphtha	64742-94-5	Not applicable
Quaternary ammonium compound	PROPRIETARY	Not applicable
Isopropanol	67-63-0	Not applicable
Xylene	1330-20-7	Not applicable
Naphthalene	91-20-3	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Light aromatic solvent	64742-95-6	Not applicable
1,2,4 Trimethylbenzene	95-63-6	Not applicable
Heavy aromatic petroleum naphtha	64742-94-5	Not applicable
Quaternary ammonium compound	PROPRIETARY	Not applicable
Isopropanol	67-63-0	Not applicable
Xylene	1330-20-7	Not applicable
Naphthalene	91-20-3	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
Light aromatic solvent	64742-95-6	Not applicable	Not applicable
1,2,4 Trimethylbenzene	95-63-6	1.0%	Not applicable
Heavy aromatic petroleum naphtha	64742-94-5	Not applicable	Not applicable
Quaternary ammonium compound	PROPRIETARY	Not applicable	Not applicable
Isopropanol	67-63-0	1.0%	Not applicable

Xylene	1330-20-7	1.0%	Not applicable
Naphthalene	91-20-3	0.1%	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Light aromatic solvent	64742-95-6	Not applicable
1,2,4 Trimethylbenzene	95-63-6	Not applicable
Heavy aromatic petroleum naphtha	64742-94-5	Not applicable
Quaternary ammonium compound	PROPRIETARY	Not applicable
Isopropanol	67-63-0	Not applicable
Xylene	1330-20-7	100 lb 45.4 kg
Naphthalene	91-20-3	100 lb 45.4 kg 1 lb 0.454 kg

EPA RCRA Hazardous Waste Classification
Ignitability D001

California Proposition 65 The California Proposition 65 regulations apply to this product.

MA Right-to-Know Law One or more components listed.

NJ Right-to-Know Law One or more components listed.

PA Right-to-Know Law One or more components listed.

NFPA Ratings: Health 2, Flammability 3, Reactivity 0
HMIS Ratings: Health 2*, Flammability 3, Physical Hazard 0 , PPE: X

Canadian Regulations

Canadian Domestic Substances List (DSL) Product contains one or more components not listed on the inventory.

16. Other information

Preparation Information

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

Revision Date: 10-May-2016

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^3 - 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