

SAFETY DATA SHEET

Product Trade Name: MC MX 1-5360

Revision Date: 14-Jul-2021

Revision Number: 1

1. Identification

1.1. Product Identifier

Product Trade Name: MC MX 1-5360
Synonyms: None
Chemical Family: Blend
Internal ID Code: MC006445

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
 A Halliburton Energy Services, Inc. Company
 3000 N. Sam Houston Pkwy E., Houston, TX 77032
 Phone: 1-281-871-4000

Halliburton Group Canada
 645 - 7th Ave SW Suite 1800
 Calgary, AB, T2P 4G8, Canada
 Telephone: 1-403-231-9300

Prepared By: Chemical Stewardship
 e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number:

Emergency Telephone Number: 1-866-519-4752 or 1-760-476-3962 (accessible 24 hours a day / 7 days a week)
 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 3 - H301
Acute toxicity - Dermal	Category 3 - H311
Acute inhalation toxicity - vapor	Category 3 - H331
Carcinogenicity	Category 2 - H351
Specific Target Organ Toxicity - (Single Exposure)	Category 1 - H370
Acute Aquatic Toxicity	Category 3 - H402
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
 H301 - Toxic if swallowed
 H311 - Toxic in contact with skin
 H331 - Toxic if inhaled
 H351 - Suspected of causing cancer
 H370 - Causes damage to organs
 H402 - Harmful 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.
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 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
 P330 - Rinse mouth
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P312 - Call a POISON CENTER and doctor/physician if you feel unwell.
 P362 + P364 - Take off contaminated clothing and wash before reuse
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P311 - Call a POISON CENTRE or doctor/physician
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P370 + P378 - In case of fire: Use CO₂, dry chemical, or foam

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
Methanol	67-56-1	60 - 100%	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)
Heavy aromatic naphtha	Proprietary	5 - 10%	Asp. Tox. 1 (H304) STOT SE 3 (H336) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)

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 15 minutes and get medical attention if irritation persists.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.
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

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Potential carcinogen. May cause damage to internal organs.

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.
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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. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations.

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

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

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

7. Handling and storage

7.1. Precautions for safe handling

Handling Precautions

Avoid contact with eyes, skin, or clothing. 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.

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. Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use.

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 ³	TWA: 200 ppm STEL: 250 ppm
Heavy aromatic naphtha	Proprietary	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. Positive pressure self-contained breathing apparatus.
Hand Protection	Impervious gloves Manufacturer's directions for use should be observed because of great diversity of types.
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	Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions	None known.

9. Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Physical State: Liquid	Color	Light Amber to Dark Amber
Odor: Alcohol	Odor	No information available
	Threshold:	

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	4 - 8 (10% in 3:1/IPA:H2O)
Freezing Point / Range	No data available
Melting Point / Range	No data available
Pour Point / Range	-40 °C / -40 °F
Boiling Point / Range	No data available
Flash Point	14.8 °C / 58.6 °F (PMCC)
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	2.72 psi
Vapor Density	No data available
Specific Gravity	0.8805 - 0.9055 (15.6 °C/60 °F)
Water Solubility	Dispersible
Solubility in other solvents	Aromatic hydrocarbon
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
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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.

10.6. Hazardous decomposition products

Carbon oxides.

11. Toxicological Information

11.1 Information on likely routes of exposure

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

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Acute Toxicity

Inhalation

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

Eye Contact

May cause mild eye irritation.

Skin Contact

Toxic in contact with skin. May cause mild skin irritation.

Ingestion

Toxic if swallowed. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression. Ingestion of this product may cause blindness due to the presence of methanol.

Chronic Effects/Carcinogenicity The International Agency for Research on Cancer (IARC) has evaluated naphthalene and determined it to be a possible carcinogen to humans (Group 2B, based on sufficient evidence in experimental animals and inadequate evidence in humans).

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)
Heavy aromatic naphtha	Proprietary	>5000 mg/kg-bw (rat)	>1800 mg/kg-bw (rabbit)	> 4.778 mg/L (rat, 4 h, vapour, saturated)

Substances	CAS Number	Skin corrosion/irritation
Methanol	67-56-1	Non-irritating to the skin (Rabbit)
Heavy aromatic naphtha		Non-irritating to the skin (Rabbit) (similar substances)

Substances	CAS Number	Serious eye damage/irritation
Methanol	67-56-1	Non-irritating to the eye (Rabbit)
Heavy aromatic naphtha		Non-irritating to rabbit's eye (similar substances)

Substances	CAS Number	Skin Sensitization
Methanol	67-56-1	Did not cause sensitization on laboratory animals (guinea pig)
Heavy aromatic naphtha		Patch test on human volunteers did not demonstrate sensitization properties Did not cause

		sensitization on laboratory animals (guinea pig) (similar substances)
Substances	CAS Number	Respiratory Sensitization
Methanol	67-56-1	No information available
Heavy aromatic naphtha		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.
Heavy aromatic naphtha		In vitro tests did not show mutagenic effects. In vivo tests did not show mutagenic effects. (similar substances)
Substances	CAS Number	Carcinogenic Effects
Methanol	67-56-1	No data of sufficient quality are available.
Heavy aromatic naphtha		Did not show carcinogenic effects in animal experiments (similar substances) Not regarded as carcinogenic.
Substances	CAS Number	Reproductive toxicity
Methanol	67-56-1	Based on available data, the classification criteria are not met. Experiments have shown reproductive toxicity effects on laboratory animals
Heavy aromatic naphtha		Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Substances	CAS Number	STOT - single exposure
Methanol	67-56-1	May cause disorder and damage to the Central Nervous System (CNS)
Heavy aromatic naphtha		May cause headache, dizziness, and other central nervous system effects.
Substances	CAS Number	STOT - repeated exposure
Methanol	67-56-1	No data of sufficient quality are available.
Heavy aromatic naphtha		No significant toxicity observed in animal studies at concentration requiring classification.
Substances	CAS Number	Aspiration hazard
Methanol	67-56-1	Not applicable
Heavy aromatic naphtha		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

Harmful 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
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)
Heavy aromatic naphtha	Proprietary	EC50 (72h) 7.8 mg/L (Pseudokirchnerella 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)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Methanol	67-56-1	Readily biodegradable (95% @ 20d)
Heavy aromatic naphtha	Proprietary	Readily biodegradable (58% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Methanol	67-56-1	Not Bioaccumulative; BCF=1
Heavy aromatic naphtha	Proprietary	LogPow 5.2

12.4. Mobility in soil

Substances	CAS Number	Mobility
Methanol	67-56-1	No information available
Heavy aromatic naphtha	Proprietary	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 UN1230
UN proper shipping name: Methanol Solution
Transport Hazard Class(es): 3 (6.1)
Packing Group: II
Environmental Hazards: Not applicable
Reportable Quantity: RQ (Methanol - 2273 kg.)
NAERG: NAERG 131

Canadian TDG

UN Number UN1230
UN proper shipping name: Methanol Solution
Transport Hazard Class(es): 3 (6.1)
Packing Group: II
Environmental Hazards: Not applicable

IMDG/IMO

UN Number UN1230
UN proper shipping name: Methanol Solution
Transport Hazard Class(es): 3 (6.1)
Packing Group: II
Environmental Hazards: Not applicable
Reportable Quantity: RQ (Methanol - 2273 kg.)
EMS: EmS F-E, S-D

IATA/ICAO

UN Number UN1230
UN proper shipping name: Methanol Solution
Transport Hazard Class(es): 3 (6.1)
Packing Group: II
Environmental Hazards: Not applicable
Reportable Quantity: RQ (Methanol - 2273 kg.)

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	TSCA Section 5(E) Consent Orders
Methanol	67-56-1	Not applicable	Not applicable
Heavy aromatic naphtha	Proprietary	Not applicable	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
Heavy aromatic naphtha	Proprietary	Not applicable

EPA SARA (311,312) Hazard Class

Flammable (gases, aerosols, liquids, or solids)
 Acute toxicity (any route of exposure)
 Specific target organ toxicity (single or repeated exposure)
 Carcinogenicity

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
Heavy aromatic naphtha	Proprietary	Not applicable	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Methanol	67-56-1	5000 lb 2270 kg
Heavy aromatic naphtha	Proprietary	Not applicable

EPA RCRA Hazardous Waste Classification

If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of:

Ignitability D001

California Proposition 65

Substances	CAS Number	California Proposition 65
Methanol	67-56-1	developmental toxicity
Heavy aromatic naphtha	Proprietary	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
Heavy aromatic naphtha	Proprietary	Not applicable	Not applicable	Not applicable

NFPA Ratings: Health 3, Flammability 3, Reactivity 0

Canadian Regulations

Canadian Domestic Substances All components listed on inventory or are exempt.

List (DSL)**16. Other information****Preparation Information**

Prepared By Chemical Stewardship
e-mail: fdunexchem@halliburton.com

Revision Date: 14-Jul-2021

Reason for Revision Initial Release

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

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End of Safety Data Sheet