

# SAFETY DATA SHEET

**Product Trade Name:** MC B-8614

**Revision Date:** 15-Jul-2015

**Revision Number:** 4

## 1. Identification

### 1.1. Product Identifier

**Product Trade Name:** MC B-8614  
**Synonyms:** None  
**Chemical Family:** Blend  
**Internal ID Code:** MC000627

### 1.2 Recommended use and restrictions on use

**Application:** Acid  
**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 2200  
 Calgary, AB  
 T2P 4G8  
 Canada

**Prepared By:** Chemical Stewardship  
 Telephone: 1-580-251-4335  
 e-mail: fdunexchem@halliburton.com

### 1.4. Emergency telephone number

**Emergency Telephone Number:** (281) 575-5000

## 2. Hazard(s) Identification

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

Acute Oral Toxicity	Category 4 - H302
Acute Inhalation Toxicity - Vapors	Category 3 - H331
Skin Corrosion / Irritation	Category 1 - H314
Serious Eye Damage / Eye Irritation	Category 1 - H318
Respiratory Sensitization	Category 1 - H334
Skin Sensitization	Category 1 - H317

Reproductive Toxicity	Category 1B - H360
Acute Aquatic Toxicity	Category 1 - H400
Chronic Aquatic Toxicity	Category 1 - H410

## 2.2. Label Elements

### Hazard Pictograms



### Signal Word

Danger

### Hazard Statements

H302 - Harmful if swallowed  
 H314 - Causes severe skin burns and eye damage  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H331 - Toxic if inhaled  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H360 - May damage fertility or the unborn child  
 H400 - Very toxic to aquatic life  
 H410 - Very 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P273 - Avoid release to the environment  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P285 - In case of inadequate ventilation wear respiratory protection

#### Response

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/shower  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P363 - Wash contaminated clothing before reuse  
 P304 + P340 - IF INHALED: Remove victim 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  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P391 - Collect spillage

#### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up

#### Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

**Contains****Substances**

Glutaraldehyde  
 Alkyl (C12-16) dimethylbenzylammonium chloride  
 Methanol

**CAS Number**

111-30-8  
 68424-85-1  
 67-56-1

**2.3 Hazards not otherwise classified**

None known

**3. Composition/information on Ingredients**

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Glutaraldehyde	111-30-8	10 - 30%	Acute Tox. 3 (H301) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Corr. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	1 - 5%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Corr. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Methanol	67-56-1	0.1 - 1%	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Repr. 1 (H360) STOT SE 1 (H370) 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****Inhalation**

If inhaled, move victim to fresh air and seek medical attention.

**Eyes**

Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.

**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**

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

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

Toxic if inhaled. Harmful if swallowed. Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. Potential reproductive hazard. May cause birth defects. May cause allergic skin and respiratory reaction.

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

Treat symptomatically.

**5. Fire-fighting measures****5.1. Extinguishing media****Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO2). Foam. Dry powder

**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**

Decomposition in fire may produce harmful gases.

**5.3 Special protective equipment and precautions for fire-fighters****Special Protective Equipment for Fire-Fighters**

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. Use appropriate protective equipment. Ensure adequate ventilation.

Evacuate all persons from the area.

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**

Flush area with water. Dike far ahead of liquid spill for later disposal.

**7. Handling and storage****7.1. Precautions for Safe Handling****Handling Precautions**

Avoid breathing vapors. Ensure adequate ventilation. Avoid contact with eyes, skin, or clothing. Use appropriate protective equipment.

**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 well ventilated area.

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

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Glutaraldehyde	111-30-8	Not applicable	Not applicable
Alkyl (C12-16) dimethylbenzylammonium	68424-85-1	Not applicable	Not applicable

chloride			
Methanol	67-56-1	TWA: 200 ppm	TWA: 200 ppm STEL: 250 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

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

<u>Property</u>	<u>Values</u>
Remarks/ - Method	
<b>pH:</b>	3.1-4.5
<b>Freezing Point/Range</b>	-3 °C / 27 °F
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	100.5 °C / 213 °F
<b>Flash Point</b>	> 93.3 °C / > 200 °F
<b>Flammability (solid, gas)</b>	No data available
upper flammability limit	No data available
lower flammability limit	No data available
<b>Evaporation rate</b>	0.8
<b>Vapor Pressure</b>	0.20 mmHg
<b>Vapor Density</b>	0.7
<b>Specific Gravity</b>	1.0290 - 1.0410
<b>Water Solubility</b>	No data available
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	-0.333 (measured)
<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

**Oxidizing Properties**

No information available

**9.2. Other information****VOC Content (%)**

No data available

**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**

Excessive heat

**10.5. Incompatible Materials**

Avoid contact with acidic, basic or oxidizing agents.

**10.6. Hazardous Decomposition Products**

Carbon monoxide and carbon dioxide. Oxides of nitrogen.

**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 allergic respiratory reaction. May cause respiratory irritation.

**Eye Contact**

Causes severe eye irritation which may damage tissue.

**Skin Contact**

Causes severe skin irritation with tissue destruction. Contains a component which is a known or suspected skin sensitizer.

**Ingestion**

Harmful if swallowed. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression.

**Chronic Effects/Carcinogenicity** Prolonged or repeated exposure may cause reproductive system damage. May cause birth defects.**11.3 Toxicity data****Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glutaraldehyde	111-30-8	100 mg/kg (Rat)	No data available	0.28 - 0.5 mg/L (Rat) 4h
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	329 mg/kg (Rat) (similar substance) 304.5 mg/kg (rat) 426 mg/kg (rat)	> 1000 mg/kg (Rat) (similar substance) 930 mg/kg (rat) 919 mg/kg (mouse)	0.054 < LC50 < 0.51 mg/L (Rat)
Methanol	67-56-1	< 790 mg/kg (rat) mg/kg (mouse) mg/kg (rabbit)	15800 mg/kg (Rabbit) mg/kg bw (primates)	83.2 mg/L (rat) 4h 128.8 mg/L (rat) 4h

Substances	CAS Number	Skin corrosion/irritation
Glutaraldehyde	111-30-8	Skin, rabbit: Causes severe skin irritation with tissue destruction.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Causes severe irritation and or burns
Methanol	67-56-1	Non-irritating to the skin (Rabbit)

Substances	CAS Number	Eye damage/irritation
Glutaraldehyde	111-30-8	Eye, rabbit: Causes severe eye irritation.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Causes severe eye irritation which may damage tissue.
Methanol	67-56-1	Non-irritating to the eye (Rabbit)

Substances	CAS Number	Skin Sensitization
Glutaraldehyde	111-30-8	Skin sensitizer in guinea pig.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Did not cause sensitization on laboratory animals
Methanol	67-56-1	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Glutaraldehyde	111-30-8	May cause sensitization by inhalation
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	No information available
Methanol	67-56-1	No information available

Substances	CAS Number	Mutagenic Effects
Glutaraldehyde	111-30-8	In vivo tests did not show mutagenic effects.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Did not show mutagenic effects in animal experiments In vitro 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.

Substances	CAS Number	Carcinogenic Effects
Glutaraldehyde	111-30-8	Did not show carcinogenic effects in animal experiments
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Did not show carcinogenic effects in animal experiments
Methanol	67-56-1	No data of sufficient quality are available.

Substances	CAS Number	Reproductive toxicity
Glutaraldehyde	111-30-8	Not a confirmed teratogen or embryotoxin.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
Methanol	67-56-1	Experiments have shown reproductive toxicity effects on laboratory animals

Substances	CAS Number	STOT - single exposure
Glutaraldehyde	111-30-8	May cause respiratory irritation.
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	No information available
Methanol	67-56-1	May cause disorder and damage to the Central Nervous System (CNS)

Substances	CAS Number	STOT - repeated exposure
Glutaraldehyde	111-30-8	May cause disorder and damage to the Respiratory system
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	No significant toxicity observed in animal studies at concentration requiring classification.
Methanol	67-56-1	No data of sufficient quality are available.

Substances	CAS Number	Aspiration hazard
------------	------------	-------------------

Glutaraldehyde	111-30-8	Not applicable
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	No information available
Methanol	67-56-1	Not applicable

## 12. Ecological Information

### 12.1. Toxicity

#### Ecotoxicity Effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Glutaraldehyde	111-30-8	EC50 (72h) 0.6 mg/L (Desmodesmus subspicatus)	LC50 (96h) 10 mg/L (Oncorhynchus mykiss) NOEC (97d) 1.6 mg/L (Oncorhynchus mykiss)	EC50 (17h) 6.65 mg/L (Pseudomonas putida)	EC50 (48h) 0.07 mg/L (Acartia tonsa) EC50 (48h) 0.35 mg/L (Daphnia magna) NOEC (21d) 0.13 mg/L (Daphnia magna)
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	ErC50 (72h) 0.062 mg/L (Pseudokirchnerella subcapitata) (similar substance) ErC50 (96h) 0.053 mg/L (Pseudokirchnerella subcapitata) (similar substance)	LC50 (96h) 0.49 mg/L (Danio rerio) (similar substance) LC50 (96h) 0.7 mg/L (Danio rerio) (similar substance)	EC50 (3h) 17.95 mg/L (Activated sludge) (similar substance)	EC50 (48h) 0.029 mg/L (Daphnia magna) (similar substance) NOEC (21d) 0.021 mg/L (Daphnia magna) (similar substance)
Methanol	67-56-1	ErC50 (96h) 22000 mg/L (Pseudokirchnerella subcapitata)	LC50 28200 mg/L (Pimephales promelas) LC50 (96h) 12700 – 15400 mg/L (Lepomis macrochirus)	IC50 (3h) > 1000 mg/L (activated sludge)	EC50 (96h) 18260 mg/L (Daphnia magna) NOEC (21d) 122 mg/L (Daphnia magna, Reproduction)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Glutaraldehyde	111-30-8	Readily biodegradable
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Readily biodegradable (71% @ 28d)
Methanol	67-56-1	(95-97% @ 20d)

### 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Glutaraldehyde	111-30-8	-0.36
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	2.59
Methanol	67-56-1	-0.77
		BCF = 1.0 – 4.5 (Cyprinus carpio) BCF < 10 (Leuciscus idus melanotus)

### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Glutaraldehyde	111-30-8	KOC = >5.6 <2071
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	KOC = 667 - 24433
Methanol	67-56-1	No information available

### 12.5 Other adverse effects



No information available

### 13. Disposal Considerations

#### 13.1. Waste treatment methods

**Disposal Method** 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:** UN3265  
**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)  
**Transport Hazard Class(es):** 8  
**Packing Group:** III  
**Environmental Hazards:** Not applicable  
**NAERG:** NAERG 153

#### US DOT Bulk

**DOT (Bulk)** Not applicable

#### Canadian TDG

**UN Number:** UN3265  
**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)  
**Transport Hazard Class(es):** 8  
**Packing Group:** III  
**Environmental Hazards:** Not applicable

#### IMDG/IMO

**UN Number:** UN3265  
**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)  
**Transport Hazard Class(es):** 8  
**Packing Group:** III  
**Environmental Hazards:** Not applicable  
**EMS:** EmS F-A, S-B

#### IATA/ICAO

**UN Number:** UN3265  
**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)  
**Transport Hazard Class(es):** 8  
**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.

#### EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances

Glutaraldehyde	111-30-8	Not applicable
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Not applicable
Methanol	67-56-1	Not applicable

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

Acute Health Hazard  
Chronic Health Hazard

**EPA SARA (313) Chemicals**

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Glutaraldehyde	111-30-8	Not applicable	>= 1.0 %
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Not applicable	Not applicable
Methanol	67-56-1	1.0%	Not applicable

**EPA CERCLA/Superfund Reportable Spill Quantity**

Substances	CAS Number	CERCLA RQ
Glutaraldehyde	111-30-8	Not applicable
Alkyl (C12-16) dimethylbenzylammonium chloride	68424-85-1	Not applicable
Methanol	67-56-1	5000 lb 2270 kg

**EPA RCRA Hazardous Waste Classification**

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

**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.

**Canadian Regulations**

**Canadian DSL Inventory** All components listed on inventory or are exempt.

**16. Other information****Preparation Information**

**Prepared By** Chemical Stewardship  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

**Revision Date:** 15-Jul-2015

**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**

bw – body weight  
CAS – Chemical Abstracts Service  
EC50 – Effective Concentration 50%  
ErC50 – Effective Concentration growth rate 50%  
LC50 – Lethal Concentration 50%  
LD50 – Lethal Dose 50%  
LL50 – Lethal Loading 50%  
mg/kg – milligram/kilogram  
mg/L – milligram/liter  
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  
h - hour  
mg/m<sup>3</sup> - milligram/cubic meter  
mm - millimeter  
mmHg - millimeter mercury  
w/w - weight/weight  
d - day

**Key literature references and sources for data**

OSHA  
ECHA C&L  
[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

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

**End of Safety Data Sheet**