HALLIBURTON

SAFETY DATA SHEET

ALCHEK

Revision Date: 09-Apr-2015 **Revision Number:** 16

1. Identification of the hazardous chemical and of the supplier

Product identifier

Product Name ALCHEK

Other means of identification

Product Code: HM000052

Recommended use of the chemical and restrictions on use

Recommended Use Scale Inhibitor

Supplier details

Halliburton Energy Service (M) Sdn Bhd
10th Floor, G Tower,
199 Jalan Tun Razak,
50400, Kuala Lumpur, Malaysia
Phone Number: +603-9206 6888

Halliburton Energy Service (M) Sdn Bhd
Labuan Base,
Ranca-Ranca Industrial Estate
Labuan FT, LAB 82223 Malaysia
Phone Number: +60 87-596 200 ext Gate B-886086263

Halliburton Energy Service (M) Sdn Bhd
Warehouse 38, Phase 2, Kemaman Supply Base (KSB)
24007, Kemaman
Terengganu, Malaysia
Phone Number : +609-862 8000

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

Emergency Phone number

+1 281 575 5000

2. Hazard Identification

Classification of the hazardous chemical

Acute Oral Toxicity	Category 4 - H302
Skin Corrosion / Irritation	Category 1 - H314
Serious Eye Damage / Eye Irritation	Category 1 - H318

Label Elements

Hazard Pictograms

Signal Word **Danger**

Hazard Statements
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary Statements

Prevention
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
P280 - Wear protective gloves/eye protection/face 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
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/physician
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage
P405 - Store locked up

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

Contains

Substances	CAS Number
Hydroxyacetic acid	79-14-1

Other hazards which do not result in classification
None known

3. Composition and information on ingredients of the hazardous chemical

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Malaysia
Hydroxyacetic acid	79-14-1	> 60%	Skin Corr. 1B (H314) Eye Corr. 1 (H318) Acute Tox. 4 (H332)

4. First-aid measures

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.

Most important symptoms and effects, both acute and delayed
Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. Harmful if swallowed.

Indication of any immediate medical attention and special treatment needed
Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media
Suitable Extinguishing Media
Water fog, carbon dioxide, foam, dry chemical.
Extinguishing media which must not be used for safety reasons
None known.

Physicochemical hazards arising from the chemical
Special Exposure Hazards
Reacts with metals to generate flammable hydrogen gas. Decomposition in fire may produce harmful gases.

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

Personal precautions, protective equipment and emergency procedures
Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.
See Section 8 for additional information

Environmental precautions
Prevent from entering sewers, waterways, or low areas. Consult local authorities.

Methods and material for containment and cleaning up
Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Neutralize to pH of 6-8. Scoop up and remove.

7. Handling and storage

Precautions for safe handling
Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.
Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities
Store away from alkalis. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 36 months.

8. Exposure controls and personal protection

Control parameters
Exposure Limits

Substances	CAS Number	Malaysia OEL	ACGIH TLV-TWA
Hydroxyacetic acid	79-14-1	Not applicable	3 ppm

Appropriate engineering controls

Engineering Controls	Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

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. Organic vapor/acid gas respirator.
Hand Protection	Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Butyl rubber gloves. (>= 0.7 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.
Skin Protection	Full protective chemical resistant clothing.
Eye Protection	Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions	Eyewash fountains and safety showers must be easily accessible.
Environmental Exposure Controls	Do not allow material to contaminate ground water system

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State:	Liquid	**Color:**	Clear amber
Odor:	Mild burnt sugar	**Odor Threshold:**	No information available

Property Remarks/ - Method	Values
pH:	0.5
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	112 °C / 234 °F
Flash Point	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.25
Water Solubility	Miscible with water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	0.0776
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

Other information

Molecular Weight	76.05
VOC Content (%)	No data available

10. Stability and reactivity

Reactivity
Not expected to be reactive.

Chemical stability
Stable

Possibility of hazardous reactions
Will Not Occur

Conditions to avoid
None anticipated

Incompatible materials
Strong oxidizers. Strong alkalis. Sulfuric acid. Ammonium compounds. Amines. Isocyanates. Contact with metals.

Hazardous decomposition products
Flammable hydrogen gas. Carbon monoxide and carbon dioxide.

11. Toxicological information

Information on possible routes of exposure
Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure
Most Important Symptoms/Effects
Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. Harmful if swallowed.

Numerical measures of toxicity

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroxyacetic acid	79-14-1	2040 mg/kg (Rat)	No data available	3.6 mg/L (Rat) 4h

Immediate, delayed and chronic health effects from exposure
Inhalation May cause respiratory irritation.
Eye Contact Causes eye burns.
Skin Contact Causes severe burns.
Ingestion Causes burns of the mouth, throat and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity Prolonged, excessive exposure may cause erosion of the teeth.

Exposure Levels
No data available

Interactive effects
Skin disorders.

Data limitations
No data available

Substances	CAS Number	Skin corrosion/irritation
Hydroxyacetic acid	79-14-1	Skin, rabbit: Causes burns.

Substances	CAS Number	Eye damage/irritation
Hydroxyacetic acid	79-14-1	Eye, rabbit: Causes severe eye irritation which may damage tissue.

Substances	CAS Number	Skin Sensitization
Hydroxyacetic acid	79-14-1	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Hydroxyacetic acid	79-14-1	No information available

Substances	CAS Number	Mutagenic Effects
Hydroxyacetic acid	79-14-1	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Hydroxyacetic acid	79-14-1	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Hydroxyacetic acid	79-14-1	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Hydroxyacetic acid	79-14-1	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Hydroxyacetic acid	79-14-1	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Hydroxyacetic acid	79-14-1	Not applicable

12. Ecological information

Ecotoxicity

12.1. Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydroxyacetic acid	79-14-1	ErC50 (72h) 44mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) 164 mg/L (Pimephales promelas)	No information available	EC50 (48h) 114 mg/L (Daphnia magna) EC50 (48h) 58.5 mg/L (Acartia tonsa)

Persistence and degradability

Readily biodegradable

Substances	CAS Number	Persistence and Degradability
Hydroxyacetic acid	79-14-1	Readily biodegradable

Bioaccumulative potential

Substances	CAS Number	Log Pow
Hydroxyacetic acid	79-14-1	Log Kow < 1.4

Mobility in soil

Substances	CAS Number	Mobility
Hydroxyacetic acid	79-14-1	No information available

Other adverse effects

Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors

13. Disposal considerations

Disposal Method

Disposal Method	Disposal should be made in accordance with federal, state, and local regulations.
Contaminated Packaging	Follow all applicable national or local regulations.

14. Transportation information

Transportation Information

UN Number:	UN3265
UN Proper Shipping Name:	Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glycolic Acid)
Transport Hazard Class(es):	8
Packing Group:	II
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

HazChem Code
2X

15. Regulatory information

International agreements

Montreal Protocol - Ozone Depleting Substances:	Does not apply
Stolkhom Convention - Persistent Organic Pollutants:	Does not apply
Rotterdam Convention - Prior Informed Consent:	Does not apply
Basel Convention - Hazardous Waste:	Does not apply

Safety, health, and environmental regulations specific for the hazardous chemcial

Malaysia Occupation Safety and Health - Prohibition of Use Substances:	Does not apply
Malaysia Substances Requiring Medical Surveillance:	Does not apply
Malaysia Environmentally Hazardous Substances (EHS):	One or more components listed.

16. Other information

Revision Date: 09-Apr-2015
Revision Note
Update to Format SECTION: 2

Key literature references and sources for data
www.ChemADVISOR.com/

Key or legend to abbreviations and acronyms
bw – body weight
CAS – Chemical Abstracts Service
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
STEL – Short Term Exposure Limit
h - hour
d - day

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End of Safety Data Sheet