

SAFETY DATA SHEET

FE-1A ACIDIZING COMPOSITION

Revision Date: 26-Aug-2013

Revision Number: 23

1. Product and Company Identification

Product Name

Product Trade Name: FE-1A ACIDIZING COMPOSITION

Other Names

Synonyms: None

Product Code: HM000680

Recommended Use

Recommended Use

Additive

Uses Advised Against No information available

Company Name, Address and Contact Details

Manufacturer/Supplier Halliburton New Zealand
1 Paraite Rd,
Bell Block, New Plymouth
New Zealand Registration No.: 824207

E-Mail address: fdunexchem@halliburton.com

Emergency Telephone Number +64-6-7559274

New Zealand National Poisons Centre 0800 764 766 (24 hours)

2. Hazard(s) Identification

Statement of Hazardous Nature

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001;
Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

Classification

3.1C Flammable Liquids - Medium hazard
6.1D (Oral) Acutely Toxic Substances
6.1E (Dermal) Acutely Toxic Substances
6.1D (Inhalation) Acutely Toxic Substances
6.9B Harmful to human target organs or systems
8.1A Corrosive to metals
8.2B Corrosive to dermal tissue if exposed for greater than 3 mins
8.3A Corrosive to ocular tissue
9.1D Slightly harmful in the aquatic environment
9.3C Harmful to terrestrial vertebrates

Hazard and Precautionary Statements

Hazard Pictograms**Signal Word**

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H226 - Flammable liquid and vapor
H302 - Harmful if swallowed
H313 - May be harmful in contact with skin
H332 - Harmful if inhaled
H290 - May be corrosive to metals
H373 - May cause damage to organs through prolonged or repeated exposure if inhaled
H402 - Harmful to aquatic life
H433 - Harmful to the terrestrial vertebrates.

Precautionary Statements**Prevention**

P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P103 - Read label before use
P104 - Read Safety Data Sheet before use
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P234 - Keep only in original container
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
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
P280 - Wear protective gloves/eye protection/face protection

Response

P370 + P 378 - In case of fire: Use CO2, dry chemical, or foam
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 victim 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
P390 - Absorb spillage to prevent material damage

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up
 P406 - Store in corrosive resistant polyethylene container with a resistant inliner

Disposal

P501 - Dispose of contents/container to an approved incineration plant

Contains

Substances	CAS Number	Substance HSNO Classification
Acetic anhydride	108-24-7	3.1C 6.1D (Oral) 6.1D (Inhalation) C 8.3A
Acetic acid	64-19-7	3.1C 6.1D (Oral) 6.1D (Dermal) 6.1D (Inhalation) 6.9B (Inhalation) 8.1A 8.2B 8.3A 9.1D (Algae, Crustacean, Fish) 9.3C

Other Hazards

None known

3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Acetic anhydride	108-24-7	60 - 100%
Acetic acid	64-19-7	30 - 60%

4. First-Aid Measures

Requirements for First Aid or Medical Care**Inhalation**

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Eyes

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and laundry before reuse. Destroy or properly dispose of contaminated shoes.

Ingestion

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Workplace Facilities Required

None

Relation to Health Effect**Most Important Symptoms/Effects**

May cause eye and skin burns. May be harmful if swallowed. May be harmful if inhaled.

Medical Attention and Special Treatment**Notes to Physician**

Treat symptomatically

5. Fire-Fighting Measures

Type of Hazard**Flammability Hazard**

Flammable Liquid

Extinguishing media**Suitable Extinguishing Media**

Carbon dioxide, dry chemical, foam.

Extinguishing media which must not be used for safety reasons

Water must not be used with open containers.

HAZCHEM Code

Hazchem Code: 2P

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.

Special Exposure Hazards

May be ignited by heat, sparks or flames. Closed containers may explode in fire. Decomposition in fire may produce toxic gases. Reaction with water may be highly exothermic.

6. Spillage, Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.

See Section 12 for additional information

Environmental precautions

Prevent from entering sewers, waterways, or low areas.

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.

Reference to other sections

See Section 12 for additional information.

7. Handling and Storage

Precautions for Safe Handling**Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

Handling Practices**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

Approved Handlers

This product does NOT require an approved handler.

Conditions for safe storage, including any incompatibilities

Store away from alkalis. Store away from oxidizers. Store away from water. Keep from heat, sparks, and open flames. Keep container closed when not in use. Store in a cool well ventilated area. Store locked up. Product has a shelf life of 60 months.

Store Site Requirements

No special controls required

Packaging

Store in corrosive resistant container with a resistant inner liner.

8. Exposure Controls and Personal Protection

Workplace Exposure Standards

Exposure Limits

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Acetic anhydride	108-24-7	Not applicable	TWA: 5 ppm
Acetic acid	64-19-7	STEL: 15 ppm STEL: 37 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³	TWA: 10 ppm STEL: 15 ppm

Engineering Controls

Engineering Controls

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

Personal Protective Equipment (PPE)

Respiratory Protection

Organic vapor/acid gas respirator.

Hand Protection

Impervious rubber gloves.

Skin Protection

Rubber boots. 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.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid

Color: Clear colorless

Odor: Pungent acrid

Odor Threshold: No information available

Property

Values

Remarks/ - Method

pH:

< 2

Freezing Point/Range

-9 °C

Melting Point/Range

No data available

Boiling Point/Range

126 °C

Flash Point

39 °C

PMCC

upper flammability limit

19

lower flammability limit

3

Evaporation rate

0.97

Vapor Pressure

11.7 mmHg

Vapor Density

3.5

Specific Gravity

1.0753

Water Solubility

Soluble in water

Solubility in other solvents

No data available

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

Other information

VOC Content (%)

No data available

10. Stability and Reactivity

Chemical Stability

Stable

Conditions to Avoid

Keep away from heat, sparks and flame. Do not allow water to get into container because of violent reaction.

Incompatible Materials

Strong alkalis. Strong oxidizers. Reacts with water.

Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

Hazardous Reactions**Hazardous Polymerization:** Will Not Occur**11. Toxicological Information****Health Effect from Likely Routes of Exposure****Acute Toxicity**

Inhalation	Causes severe respiratory irritation.
Eye Contact	Causes severe eye burns.
Skin Contact	Causes severe burns.
Ingestion	Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity Prolonged, excessive exposure may cause erosion of the teeth.**Toxicity Data****Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetic anhydride	108-24-7	630 mg/kg (Rat)	4000 mg/kg (Rabbit)	4.2 mg/L (Rat) 4 h 1000 ppm (Rat) 4 h
Acetic acid	64-19-7	3310 mg/kg (Rat) 600 mg/kg (Rabbit)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h

12. Ecological Information**Toxicity****Ecotoxicity Effects****Product Ecotoxicity Data**

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Acetic anhydride	108-24-7	No information available	LC50: 265 mg/L (Leuciscus idus)	No information available	EC50: 55 mg/L (Daphnia magna)
Acetic acid	64-19-7	EC50: 90 mg/L (Microcystis aeruginosa)	LC50: 79 mg/l (Pimephales promelas) LC50: 75 mg/l (Pimephales promelas)	No information available	EC50: 47 mg/l (Daphnia magna) LC50: 32 mg/L (Artemia salina)

Persistence and degradability

Readily biodegradable

Bioaccumulative potential

Does not bioaccumulate

Substances	Log Pow
Acetic anhydride	-0.27

Mobility in soil

No information available

Ecotoxicity Hazard Statements

Toxic to aquatic life

Harmful to terrestrial vertebrates.

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

Waste treatment methods**Disposal Method**

Disposal should be made in accordance with federal, state, and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

Contaminated Packaging

Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

14. Transport Information

IMDG/IMO

UN Number: UN2920,
 UN Proper Shipping Name: Corrosive Liquid, Flammable, N.O.S.
 Transport Hazard Class(es): , 8
 , (3)
 Packing Group: , II
 EMS: EmS F-E, S-C

NZ 5433.1999

UN Number: UN2920,
 UN Proper Shipping Name: Corrosive Liquid, Flammable, N.O.S.
 Transport Hazard Class(es): , 8
 , (3)
 Packing Group: , II

IATA/ICAO

UN Number: UN2920,
 UN Proper Shipping Name: Corrosive Liquid, Flammable, N.O.S.
 Transport Hazard Class(es): , 8
 , (3)
 Packing Group: , II

Special Precautions for User None**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

15. Regulatory Information

New Zealand Inventory of Chemicals

All components listed on inventory or are exempt.

HSNO Approval Number

HSR002496

Group Name

Additives, Process Chemicals and Raw Materials (Flammable, Corrosive HSR002496)

HSNO ControlsRefer to the NZ EPA website for more information: <http://www.epa.govt.nz>

Approved Handlers Not Applicable

Poisons Schedule: S6

16. Other Information

The following sections have been revised since the last issue of this SDS

Not applicable

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 Compliance at 1-580-251-4335.

Key literature references and sources for data

www.ChemADVISOR.com/
NZ CCID

Revision Date: 26-Aug-2013

Revision Note

Not applicable

Disclaimer Statement

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End of Safety Data Sheet