

SAFETY DATA SHEET

FE-1

Revision Date: 05-Mar-2014

Revision Number: 21

1. Product and Company Identification

Product Name

Product Trade Name: FE-1

Other Names

Synonyms: None

Product Code: HM000677

Recommended Use

Recommended Use Acid

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
6.1D (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

H226 - Flammable liquid and vapor
 H290 - May be corrosive to metals
 H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H332 - Harmful if inhaled
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 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
 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

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
 P370 + P378 - In case of fire: Use water spray for extinction
 P390 - Absorb spillage to prevent material damage

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up

Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Contains

Substances	CAS Number	Substance HSNO Classification
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

2.3 Other Hazards

None known

3. Composition and Information on Ingredients

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

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 launder before reuse.
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, skin, and respiratory burns.

Medical Attention and Special Treatment

Notes to Physician

Treat symptomatically

5. Fire-fighting measures

Type of Hazard

Flammability Hazard

Flammable Liquid

5.1 Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

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

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

6. Spillage, Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment.

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

Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Neutralize to pH of 6-8. Scoop up and remove.

6.4 Reference to other sections

See Section 8 and 13 for additional information.

7. Handling and Storage

7.1 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.

7.2 Conditions for safe storage, including any incompatibilities

Store away from oxidizers. 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. Store locked up.

Product is incompatible with:

Class 1 (explosives)
 Class 2 (flammable gases, aerosols)
 Class 3.2 (liquid desensitised explosives)
 Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)
 Class 5 (oxidisers, organic peroxides)

Store Site Requirements

No special controls required

Packaging

No special packaging required

8. Exposure Controls and Personal Protection

Workplace Exposure Standards**Exposure Limits**

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
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

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

9.1 Information on basic physical and chemical properties

Physical State: Liquid
Odor: Pungent

Color: Clear
Odor Threshold: No information available

Property

Values

Remarks/ - Method

pH:	2.4
Freezing Point/Range	16.7 °C
Melting Point/Range	No data available
Boiling Point/Range	115 °C
Flash Point	39 °C PMCC
upper flammability limit	12.7%
lower flammability limit	1.1%
Evaporation rate	0.97
Vapor Pressure	11.4
Vapor Density	2.1
Specific Gravity	1.049
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	0.5
Autoignition Temperature	427 °C
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2 Other information

Molecular Weight	60.6
VOC Content (%)	No data available

10. Stability and Reactivity

10.2 Chemical Stability

Stable

10.4 Conditions to Avoid

Keep away from heat, sparks and flame.

10.5 Incompatible Materials

Strong alkalis. Strong oxidizers.

Product is incompatible with:

Class 1 (explosives)
 Class 2 (flammable gases, aerosols)
 Class 3.2 (liquid desensitised explosives)
 Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)
 Class 5 (oxidisers, organic peroxides)

10.6 Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

Hazardous Reactions**Hazardous Polymerization:** Will Not Occur

11. Toxicological Information

Health Effect from Likely Routes of ExposureAcute Toxicity

Inhalation	Causes severe respiratory irritation.
Eye Contact	May cause 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

LD50 Oral:	3310 mg/kg; (rat)
-------------------	-------------------

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetic acid	64-19-7	3310 mg/kg (Rat) 600 mg/kg (Rabbit) 4960 mg/kg (Mouse)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h

12. Ecological Information**12.1 Toxicity****Ecotoxicity 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
Acetic acid	64-19-7	EC50: 90 mg/L (Microcystis aeruginosa) EC50(72h): > 1000 mg/L (>300.82 mg/L – acetate ion) (Skeletonema costatum)	LC50: 79 mg/l (Pimephales promelas) LC50: 75 mg/l (Pimephales promelas) LC50(96h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Oncorhynchus mykiss)	NOEC(16h): 1150 mg/L (Pseudomonas putida)	EC50: 47 mg/l (Daphnia magna) LC50: 32 mg/L (Artemia salina) EC50(48h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Daphnia magna) NOEC(21d): 31.4 - 37.9 mg/L (Daphnia magna) (reproduction)

12.2 Persistence and degradability

Readily biodegradable

12.3 Bioaccumulative potential

Does not bioaccumulate

Substances	Log Pow
Acetic acid	-0.17 BCF 3.16 (Calculated)

12.4 Mobility in soil

No information available

Ecotoxicity Hazard Statements

Harmful to aquatic life

Harmful in the soil environment.

12.6 Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations**13.1 Waste treatment methods****Disposal Method****Contaminated Packaging**

Disposal should be made in accordance with federal, state, and local regulations.

Substance should NOT be deposited into a sewage facility.

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: UN2789,
UN Proper Shipping Name: Acetic Acid, Glacial
Transport Hazard Class(es): , 8 , (3)
Packing Group: , II
EMS: EmS F-E, S-C

NZ 5433.1999

UN Number: UN2789,
UN Proper Shipping Name: Acetic Acid, Glacial
Transport Hazard Class(es): , 8
, (3)
Packing Group: , II

IATA/ICAO

UN Number: UN2789,
UN Proper Shipping Name: Acetic Acid, Glacial
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 HSR000975

Group Name Not Applicable

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

Approved Handlers Not Applicable

Poisons Schedule: S6

16. Other information, including date of preparation or last revision

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: 05-Mar-2014
Revision Note
Not applicable

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