

**SAFETY DATA SHEET****FR-46****Revision Date:** 06-Jun-2013**Revision Number:** 6**1. Product and Company Identification****Product Name****Product Trade Name:** FR-46**Other Names****Synonyms:** None  
**Product Code:** HM006128**Recommended Use****Recommended Use** Friction Reducer  
**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; Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

**Classification**

6.1E (Oral) Acutely Toxic Substances  
9.1D Slightly harmful in the aquatic environment  
9.3C Harmful to terrestrial vertebrates

**Hazard and Precautionary Statements****Hazard Pictograms****Signal Word** Warning

## 2. Hazard(s) Identification

<b>Hazard Statements</b>	H303 - May be harmful if swallowed H402 - Harmful to aquatic life H433 - Harmful to the terrestrial vertebrates.
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### Precautionary Statements

<b>Prevention</b>	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.
<b>Response</b>	P312 - Call a POISON CENTER/doctor/physician if you feel unwell P331 - Do NOT induce vomiting
<b>Storage</b>	None
<b>Disposal</b>	P501 - Dispose of contents/container to an approved waste disposal plant

### Contains

Substances	CAS Number	Substance HSNO Classification
Ammonium sulfate	7783-20-2	6.1D (Oral) 9.1D (Crustacean, Fish) 9.3C

### Other Hazards

None known

## 3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Ammonium sulfate	7783-20-2	10 - 30%

## 4. First-Aid Measures

### Requirements for First Aid or Medical Care

<b>Inhalation</b>	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
<b>Eyes</b>	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.
<b>Skin</b>	Wash with soap and water. Get medical attention if irritation persists.
<b>Ingestion</b>	Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

### Workplace Facilities Required

None

### Relation to Health Effect

#### Most Important Symptoms/Effects

May be harmful if swallowed.

### Medical Attention and Special Treatment

#### Notes to Physician

Treat symptomatically

## 5. Fire-Fighting Measures

### Type of Hazard

#### **Flammability Hazard**

Non-flammable

### **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:** None Allocated

### 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**

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

## 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

Scoop up and remove. Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Do NOT spread spilled product with water.

### 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.

### 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 oxidizers. Store in a cool well ventilated area. Keep container closed when not in use.

### Store Site Requirements

No special controls required

## 7. Handling and Storage

### Packaging

No special packaging required

## 8. Exposure Controls and Personal Protection

### Workplace Exposure Standards

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Ammonium sulfate	7783-20-2	Not applicable	Not applicable

### Engineering Controls

**Engineering Controls** Use in a well ventilated area.

### Personal Protective Equipment (PPE)

#### 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, 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.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:  
Organic vapor respirator.

#### Hand Protection

Impervious rubber gloves.

#### Skin Protection

Normal work coveralls.

#### Eye Protection

Wear safety glasses or goggles to protect against exposure.

#### Other Precautions

None known.

#### 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

**Odor:** Slight

**Color:** Milky white

**Odor Threshold:** No information available

### Property

#### Remarks/ Method

#### pH:

Freezing Point/Range

Melting Point/Range

Boiling Point/Range

Flash Point

PMCC

Evaporation rate

Vapor Pressure

Vapor Density

Specific Gravity

Water Solubility

Solubility in other solvents

Partition coefficient: n-octanol/water

Autoignition Temperature

Decomposition Temperature

Viscosity

Explosive Properties

Oxidizing Properties

### Values

5.5-7.0

No data available< -15

No data available°C

120°C

> 93°C

No data available

No data available

No data available

1.2 - 1.3

Soluble in water

No data available

No data available

No data available

No data available

No information available

No information available

### Other information

#### VOC Content (%)

No data available

## 10. Stability and Reactivity

### Chemical Stability

Stable

### Conditions to Avoid

None anticipated

### Incompatible Materials

Strong oxidizers. Strong acids.

### Hazardous Decomposition Products

Carbon monoxide and carbon dioxide. Oxides of nitrogen.

### Hazardous Reactions

Hazardous Polymerization: Will Not Occur

## 11. Toxicological Information

### Health Effect from Likely Routes of Exposure

#### Acute Toxicity

#### Product Information

Under certain conditions of use, some of the product ingredients may cause the following:

<b>Inhalation</b>	May cause respiratory irritation.
<b>Eye Contact</b>	May cause mild eye irritation.
<b>Skin Contact</b>	May cause mild skin irritation.
<b>Ingestion</b>	May be harmful if swallowed.

#### Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 1% are chronic health hazards.

#### Toxicity Data

<b>Substances</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
Ammonium sulfate	2000 mg/kg ( Rat ) 640 mg/kg (Mouse)	No data available	No data available

## 12. Ecological Information

### Toxicity

#### Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

<b>Substances</b>	<b>Toxicity to Algae</b>	<b>Toxicity to Fish</b>	<b>Toxicity to Microorganisms</b>	<b>Daphnia Magna (Water Flea)</b>
Ammonium sulfate	No information available	LC50: 48 mg/L (Catla catla)	No information available	LC50: 81 - 130 mg/L (Crangon crangon)

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility in soil**

No information available

**Ecotoxicity Hazard Statements**

Slightly harmful in the aquatic environment.

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****Contaminated Packaging**

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

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:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable

**NZ 5433.1999**

**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable

**IATA/ICAO**

**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable

**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** HSR002503

**Group Name** Additives, Process Chemicals and Raw Materials (Subsidiary hazard HSR002503)

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

**15. Regulatory Information**

**Approved Handlers** Not Applicable

**Poisons Schedule:** None Allocated

**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:** 06-Jun-2013

**Revision Note** Not applicable

**Disclaimer Statement**

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**End of Safety Data Sheet**