

## MATERIAL SAFETY DATA SHEET

**Product Trade Name:** FR-28LC

**Revision Date:** 20-Dec-2012

<b>1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING</b>
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**Statement of Hazardous Nature** Hazardous according to the criteria of NOHSC, Non-Dangerous Goods according to the criteria of ADG.

**Manufacturer/Supplier** Halliburton Australia Pty. Ltd.  
15 Marriott Road  
Jandakot  
WA 6164  
Australia

ACN Number: 009 000 775  
Telephone Number: 61 (08) 9455 8300  
Fax Number: 61 (08) 9455 5300

**Product Emergency Telephone**

Australia: 08-64244950  
Papua New Guinea: 05 1 281 575 5000  
NewZealand: 06-7559274

**Fire, Police & Ambulance - Emergency Telephone**

Australia: 000  
Papua New Guinea: 000  
New Zealand: 111

**Identification of Substances or Preparation**

**Product Trade Name:** FR-28LC  
**Synonyms:** None  
**Chemical Family:** Blend  
**UN Number:** None  
**Dangerous Goods Class:** None  
**Subsidiary Risk:** None  
**Hazchem Code:** None Allocated  
**Poisons Schedule:** None Allocated  
**Application:** Friction Reducer

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

<b>2. COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Substances	CAS Number	PERCENT	Australia NOHSC	New Zealand WES	ACGIH TLV-TWA
9-Octadecenamamide, n,n-bis-2(hydroxy-ethyl)-,(Z)	93-83-4	1 - 5%	Not applicable	Not applicable	Not applicable

<b>2. COMPOSITION/INFORMATION ON INGREDIENTS</b>					
Acrylamide copolymer	Proprietary	30 - 60%	Not applicable	Not applicable	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	10 - 30%	Not applicable	Not applicable	Not applicable

**Non-Hazardous Substance to Total of 100%**

<b>3. HAZARDS IDENTIFICATION</b>
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**Hazard Overview** May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed.

**Risk Phrases** R36/38 Irritating to eyes and skin.

**HSNO Classification** Not Determined

<b>4. FIRST AID MEASURES</b>
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**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.

**Skin** Wash with soap and water. Get medical attention if irritation persists.

**Eyes** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Ingestion** Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

**Notes to Physician** Not Applicable

<b>5. FIRE FIGHTING MEASURES</b>
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**Suitable Extinguishing Media** Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons** None known.

**Special Exposure Hazards** Decomposition in fire may produce toxic gases. Use water spray to cool fire exposed surfaces.

**Special Protective Equipment for Fire-Fighters** Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

<b>6. ACCIDENTAL RELEASE MEASURES</b>
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**Personal Precautionary Measures** Use appropriate protective equipment.

**Environmental Precautionary Measures** Prevent from entering sewers, waterways, or low areas.

**Procedure for Cleaning / Absorption** Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

## 7. HANDLING AND STORAGE

Handling Precautions	Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.
Storage Information	Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.
Respiratory Protection	Organic vapor respirator.
Hand Protection	Impervious rubber gloves.
Skin Protection	Rubber apron.
Eye Protection	Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions	Eyewash fountains and safety showers must be easily accessible.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	White
Odor:	Hydrocarbon
pH:	5.5
Specific Gravity @ 20 C (Water=1):	1.02
Density @ 20 C (kg/l):	1.018
Bulk Density @ 20 C (kg/m <sup>3</sup> ):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (C):	Not Determined
Pour Point/Range (C):	Not Determined
Flash Point/Range (C):	Not Determined <b>Min:</b> > 93
Flash Point Method:	Not Determined
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (g/m <sup>3</sup> ):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (g/m <sup>3</sup> ):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Disperses
Solubility in Solvents (g/100ml):	Not Determined
VOCs (g/l):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined
Decomposition Temperature (C):	Not Determined

## 10. STABILITY AND REACTIVITY

Stability Data:	Stable
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<b>Hazardous Polymerization:</b>	Will Not Occur
<b>Conditions to Avoid</b>	None anticipated
<b>Incompatibility (Materials to Avoid)</b>	Strong oxidizers.
<b>Hazardous Decomposition Products</b>	Oxides of nitrogen. Carbon monoxide and carbon dioxide.
<b>Additional Guidelines</b>	Not Applicable

## 11. TOXICOLOGICAL INFORMATION

**Principle Route of Exposure** Eye or skin contact, inhalation.

### Symptoms related to exposure

#### **Inhalation**

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

#### **Skin Contact**

May cause moderate skin irritation.

#### **Eye Contact**

May cause moderate eye irritation.

#### **Ingestion**

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

**Aggravated Medical Conditions** None known.

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 1% are chronic health hazards.

**Other Information** None known.

### **Toxicity Tests**

**Oral Toxicity:** Not determined

**Dermal Toxicity:** Not determined

**Inhalation Toxicity:** Not determined

**Primary Irritation Effect:** Not determined

**Carcinogenicity** Not determined

**Genotoxicity:** Not determined

**Reproductive / Developmental Toxicity:** Not determined

## 12. ECOLOGICAL INFORMATION

**Mobility (Water/Soil/Air)** Not determined

**Persistence/Degradability** Slowly biodegradable

**Bio-accumulation** Not determined

## Ecotoxicological Information

Acute Fish Toxicity: Not determined  
Acute Crustaceans Toxicity: Not determined  
Acute Algae Toxicity: Not determined

Chemical Fate Information Not determined

Other Information Not applicable

## 13. DISPOSAL CONSIDERATIONS

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

Contaminated Packaging Follow all applicable national or local regulations.

## 14. TRANSPORT INFORMATION

### Land Transportation

ADR  
Not restricted

### Air Transportation

ICAO/IATA  
Not restricted

### Sea Transportation

IMDG  
Not restricted

### Other Transportation Information

Labels: None

## 15. REGULATORY INFORMATION

### Chemical Inventories

Australian AICS Inventory All components listed on inventory or are exempt.  
New Zealand Inventory of Chemicals This product does not comply with NZIOC

US TSCA Inventory All components listed on inventory or are exempt.  
EINECS Inventory This product, and all its components, complies with EINECS

Classification Xi - Irritant.

Risk Phrases R36/38 Irritating to eyes and skin.

Safety Phrases S23 Do not breathe gas, fumes, vapour or spray.  
S24/25 Avoid contact with skin and eyes.

## 16. OTHER INFORMATION

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

Not applicable

### Contact

#### Australian Poisons Information Centre

24 Hour Service: - 13 11 26

Police or Fire Brigade: - 000 (exchange): - 1100

#### New Zealand National Poisons Centre

0800 764 766

### 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.

### Disclaimer Statement

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\*\*\*END OF MSDS\*\*\*