HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: RHEMOD™ L

Revision Date: 13-Jan-2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Statement of Hazardous Nature Non-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: RHEMOD™ L

Synonyms: None

Chemical Family: Tall oil fatty acid

UN Number: None
Dangerous Goods Class: None
Subsidiary Risk: None

Hazchem Code:

Poisons Schedule:

Application:

None Allocated

None Allocated

Viscosifier

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. HAZARDS IDENTIFICATION

Statement of Hazardous Nature Non-Hazardous according to the criteria of NOHSC, Non-Dangerous Goods

according to the criteria of ADG.

Hazard Overview May cause mild eye, skin, and respiratory irritation.

Classification None

Risk Phrases None

Safety Phrases None

HSNO Classification Not Determined

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | CAS Number | PERCENT (w/w) | Australia NOHSC | ACGIH TLV-TWA | |
|-----------------------------------|-------------|---------------|------------------------|----------------------|----------------|
| | | | | WES | |
| Fatty acids, C18-unsatd., trimers | 68937-90-6 | 10 - 30% | Not applicable | Not applicable | Not applicable |
| Proprietary Component | Proprietary | 60 - 100% | Not applicable | Not applicable | Not applicable |

Non-Hazardous Substance to Total of 100%

4. FIRST AID MEASURES

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory

irritation develops or if breathing becomes difficult.

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 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.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

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.

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 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. Wash hands after use.

Storage Information Store in a cool, dry location. Product has a shelf life of 36 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use in a well ventilated area.

Respiratory ProtectionNot normally needed. But if significant exposures are possible then the following

respirator is recommended: Organic vapor respirator.

Hand Protection Impervious rubber gloves. Nitrile gloves. Neoprene gloves. Butyl rubber gloves.

Skin Protection Normal work coveralls.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Color:

Odor:

Patty acid

Not Determined

ph: Not Determine One of the State of the St

Specific Gravity @ 20 C (Water=1): 0.96 **Density @ 20 C (kg/l):** 0.92

Bulk Density @ 20 C (kg/M3): Not Determined

Boiling Point/Range (C): > 300 Freezing Point/Range (C): < 25

Pour Point/Range (C): Not Determined

Flash Point/Range (C): 270
Flash Point Method: COC

Autoignition Temperature (C):

Flammability Limits in Air - Lower (g/m³):

Flammability Limits in Air - Lower (%):

Flammability Limits in Air - Upper (g/m³):

Not Determined

Not Determined

Not Determined

Not Determined

Not Determined

Vapor Pressure @ 20 C (mmHq): < 0.001

Vapor Density (Air=1): Not Determined

Percent Volatiles: 0 Evaporation Rate (Butyl Acetate=1): 0

Solubility in Water (g/100ml): Insoluble

Solubility in Solvents (g/100ml):

VOCs (g/l):

Viscosity, Dynamic @ 20 C (centipoise):

Viscosity, Kinematic @ 20 C (centistokes):

Partition Coefficient/n-Octanol/Water:

Molecular Weight (g/mole):

Decomposition Temperature (C):

Not Determined

Not Determined

10. STABILITY AND REACTIVITY

Stability Data: Stable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid None known.

Incompatibility (Materials to

Avoid)

None known.

Hazardous Decomposition

Products

Carbon monoxide and carbon dioxide.

Additional Guidelines Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye and skin contact.

Sympotoms related to exposure

Acute Toxicity

InhalationMay cause mild respiratory irritation.Eye ContactMay cause mild eye irritation.

Skin Contact Prolonged or repeated contact may cause slight skin irritation.

Ingestion Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty

breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic Effects/Carcinogenicity

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

health hazards.

Toxicology data for the components

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------------|-------------|-------------------|-------------------|-------------------|
| Fatty acids, C18-unsatd., | 68937-90-6 | No data available | No data available | No data available |
| trimers | | | | |
| Proprietary Component | Proprietary | > 20,000 mg/kg | No data available | No data available |

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Ecotoxicity Product

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

Ecotoxicity Substance

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) | | | | |
|--------------------------------------|-------------|--|---|----------------------------|-------------------------------------|--|--|--|--|
| Fatty acids, C18-unsatd., trimers | 68937-90-6 | EC50: 237.1 mg/L (Skeletonema costatum) | LC50: > 1000 mg/L (Scophthalmus maximus) | No information available | LC50: 295.3 mg/L (Acartia tonsa) | | | | |
| Proprietary Component | Proprietary | No information available | No information available | No information available | No information available | | | | |

12.2 Persistence and degradability

Not readily biodegradable

12.3 Bioaccumulative potential

Does not bioaccumulate

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

13. DISPOSAL CONSIDERATIONS

Disposal MethodDisposal 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

US TSCA Inventory

EINECS Inventory

Australian AICS Inventory

New Zealand Inventory of

Chemicals

All components listed on inventory or are exempt. This product does not comply with NZIOC

All components listed on inventory or are exempt. This product does not comply with EINECS

Classification Not Classified

Risk Phrases None

Safety Phrases None

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.

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sole responsibility of the user.

END OF MSDS