HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: HALAD® 344L CEMENT ADDITIVE

Revision Date: 03-May-2013

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: HALAD® 344L CEMENT ADDITIVE

Synonyms: None
Chemical Family: Blend
UN Number: None
Dangerous Goods Class: None
Subsidiary Risk: None

Hazchem Code:

Poisons Schedule:

Application:

None Allocated

None Allocated

Fluid Loss Additive

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances CAS Number PERCENT Australia New Zealand ACGIH TLV-TWA

NOHSC WES

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| 2. COMPOSITION/INFORMATION ON INGREDIENTS | | | | | |
|---|-------------|-----------|-----|---|--------------------------|
| Mineral oil | Proprietary | 60 - 100% | - 5 | J . | TWA: 5 mg/m ³ |
| Modified acrylamide copolymer | Proprietary | 30 - 60% | | TWA: 5 mg/m ³ Not applicable | Not applicable |

Non-Hazardous Substance to Total of 100%

HAZARDS IDENTIFICATION

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 None

HSNO Classification 6.3A Irritating to the skin 6.4A Irritating to the eye

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.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes Eyes

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

FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must None known.

not be used for safety reasons

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

surfaces.

Fire-Fighters

Special Protective Equipment for Full protective clothing and approved self-contained breathing apparatus required for

fire fighting personnel.

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.

HANDLING AND STORAGE

Handling Precautions Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

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Storage Information Store away from oxidizers. Store in a cool well ventilated area. Keep container

closed when not in use. Store locked up. Product has a shelf life of 24 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering ControlsUse 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 Normal work coveralls.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid Color: White

Odor: Mild kerosene pH: Not Determined

Specific Gravity @ 20 C (Water=1): 1.06 **Density @ 20 C (kg/l):** 0.978

Bulk Density @ 20 C (kg/m³): Not Determined

Boiling Point/Range (C): 254

Freezing Point/Range (C):

Pour Point/Range (C):

Not Determined

Not Determined

Flash Point/Range (C): 123

Flash Point Method:

Autoignition Temperature (C):

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

Not Determined

Not Determined

Flammability Limits in Air - Lower (%): 0.9

Flammability Limits in Air - Upper (g/m³): Not Determined

Flammability Limits in Air - Upper (%):

Vapor Pressure @ 20 C (mmHg):

Vapor Density (Air=1):

Percent Volatiles:

60

Evaporation Rate (Butyl Acetate=1): Not Determined

Solubility in Water (g/100ml): Soluble

Solubility in Vater (g/100ml):

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 anticipated

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Incompatibility (Materials to

Avoid)

Strong oxidizers.

Hazardous Decomposition

Products

Oxides of sulfur. Carbon monoxide and carbon dioxide.

Additional Guidelines Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Sympotoms related to exposure

Inhalation

In high air concentrations: May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred

speech, giddiness and unconsciousness.

Skin Contact May cause skin defatting with prolonged exposure. May cause skin irritation.

Eye Contact May cause eye irritation.

Ingestion May cause abdominal pain, vomiting, nausea, and diarrhea. 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 /

Not determined

Developmental Toxicity:

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air) Not determined

Persistence/Degradability Not determined

Bio-accumulation Not determined

Ecotoxicological Information

HALAD® 344L CEMENT ADDITIVE Page 4 of 6 Acute Fish Toxicity: TLM48: 181 mg/l (Arcatia tonsa)

Acute Crustaceans Toxicity: Not determined

Acute Algae Toxicity: E(B)C50: 491 mg/l (Skeletonema costatum)

Chemical Fate InformationNot determinedOther InformationNot applicable

13. DISPOSAL CONSIDERATIONS

Disposal MethodDisposal 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

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

New Zealand Inventory of

Chemicals

All components listed on inventory or are exempt.

All components listed on inventory or are exempt.

All components listed on inventory or are exempt.

US TSCA Inventory EINECS Inventory

This product, and all its components, complies with EINECS

Classification Not Classified

Risk Phrases None

Safety Phrases None

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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 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 MSDS