

# MATERIAL SAFETY DATA SHEET

**Product Trade Name:** HR-4L

**Revision Date:** 17-Jan-2013

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

**Statement of Hazardous Nature** Hazardous according to the criteria of NOHSC, 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:** HR-4L  
**Synonyms:** None  
**Chemical Family:** Lignosulfonate  
**UN Number:** None  
**Dangerous Goods Class:** None  
**Subsidiary Risk:** None  
**Hazchem Code:** None Allocated  
**Poisons Schedule:** None Allocated  
**Application:** Cement Retarder

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

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances                       | CAS Number | PERCENT   | Australia<br>NOHSC | New Zealand<br>WES | ACGIH TLV-TWA  |
|----------------------------------|------------|-----------|--------------------|--------------------|----------------|
| Contains no hazardous substances | Mixture    | 60 - 100% | Not applicable     | Not applicable     | Not applicable |

## Non-Hazardous Substance to Total of 100%

### 3. HAZARDS IDENTIFICATION

|                            |                                                                     |
|----------------------------|---------------------------------------------------------------------|
| <b>Hazard Overview</b>     | May cause eye irritation.                                           |
| <b>Risk Phrases</b>        | R53 May cause long-term adverse effects in the aquatic environment. |
| <b>HSNO Classification</b> | Not Determined                                                      |

### 4. FIRST AID MEASURES

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>         | If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.    |
| <b>Skin</b>               | Wash with soap and water. Get medical attention if irritation persists.                                                                   |
| <b>Eyes</b>               | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists. |
| <b>Ingestion</b>          | Under normal conditions, first aid procedures are not required.                                                                           |
| <b>Notes to Physician</b> | Not Applicable                                                                                                                            |

### 5. FIRE FIGHTING MEASURES

|                                                                      |                                                                                                                |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>                                  | Water fog, carbon dioxide, foam, dry chemical.                                                                 |
| <b>Extinguishing media which must not be used for safety reasons</b> | None known.                                                                                                    |
| <b>Special Exposure Hazards</b>                                      | Decomposition in fire may produce toxic gases.                                                                 |
| <b>Special Protective Equipment for Fire-Fighters</b>                | Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel. |

### 6. ACCIDENTAL RELEASE MEASURES

|                                             |                                                                                                                |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautionary Measures</b>      | Use appropriate protective equipment.                                                                          |
| <b>Environmental Precautionary Measures</b> | Prevent from entering sewers, waterways, or low areas.                                                         |
| <b>Procedure for Cleaning / Absorption</b>  | Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove. |

### 7. HANDLING AND STORAGE

|                             |                                                                     |
|-----------------------------|---------------------------------------------------------------------|
| <b>Handling Precautions</b> | Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. |
| <b>Storage Information</b>  | Store away from oxidizers. Keep container closed when not in use.   |

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                             |                                |
|-----------------------------|--------------------------------|
| <b>Engineering Controls</b> | Use in a well ventilated area. |
|-----------------------------|--------------------------------|

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| <b>Respiratory Protection</b> | Not normally necessary.                                     |
| <b>Hand Protection</b>        | Normal work gloves.                                         |
| <b>Skin Protection</b>        | Normal work coveralls.                                      |
| <b>Eye Protection</b>         | Wear safety glasses or goggles to protect against exposure. |
| <b>Other Precautions</b>      | None known.                                                 |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                              |                |
|--------------------------------------------------------------|----------------|
| <b>Physical State:</b>                                       | Liquid         |
| <b>Color:</b>                                                | Dark brown     |
| <b>Odor:</b>                                                 | Slight         |
| <b>pH:</b>                                                   | Not Determined |
| <b>Specific Gravity @ 20 C (Water=1):</b>                    | 1.18 - 1.21    |
| <b>Density @ 20 C (kg/l):</b>                                | 1.18 - 1.21    |
| <b>Bulk Density @ 20 C (kg/m<sup>3</sup>):</b>               | Not Determined |
| <b>Boiling Point/Range (C):</b>                              | 100            |
| <b>Freezing Point/Range (C):</b>                             | Not Determined |
| <b>Pour Point/Range (C):</b>                                 | Not Determined |
| <b>Flash Point/Range (C):</b>                                | Not Determined |
| <b>Flash Point Method:</b>                                   | Not Determined |
| <b>Autoignition Temperature (C):</b>                         | Not Determined |
| <b>Flammability Limits in Air - Lower (g/m<sup>3</sup>):</b> | Not Determined |
| <b>Flammability Limits in Air - Lower (%):</b>               | Not Determined |
| <b>Flammability Limits in Air - Upper (g/m<sup>3</sup>):</b> | Not Determined |
| <b>Flammability Limits in Air - Upper (%):</b>               | Not Determined |
| <b>Vapor Pressure @ 20 C (mmHg):</b>                         | 7.5            |
| <b>Vapor Density (Air=1):</b>                                | Not Determined |
| <b>Percent Volatiles:</b>                                    | Not Determined |
| <b>Evaporation Rate (Butyl Acetate=1):</b>                   | Not Determined |
| <b>Solubility in Water (g/100ml):</b>                        | Soluble        |
| <b>Solubility in Solvents (g/100ml):</b>                     | Not Determined |
| <b>VOCs (g/l):</b>                                           | Not Determined |
| <b>Viscosity, Dynamic @ 20 C (centipoise):</b>               | Not Determined |
| <b>Viscosity, Kinematic @ 20 C (centistokes):</b>            | Not Determined |
| <b>Partition Coefficient/n-Octanol/Water:</b>                | Not Determined |
| <b>Molecular Weight (g/mole):</b>                            | Not Determined |
| <b>Decomposition Temperature (C):</b>                        | Not Determined |

## 10. STABILITY AND REACTIVITY

|                                             |                                                       |
|---------------------------------------------|-------------------------------------------------------|
| <b>Stability Data:</b>                      | Stable                                                |
| <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 sulfur. Carbon monoxide and carbon dioxide. |
| <b>Additional Guidelines</b>                | Not Applicable                                        |

## 11. TOXICOLOGICAL INFORMATION

|                                               |                                                                                                            |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Principle Route of Exposure</b>            | Eye or skin contact, inhalation.                                                                           |
| <b>Symptoms related to exposure</b>           |                                                                                                            |
| <b>Inhalation</b>                             | None known.                                                                                                |
| <b>Skin Contact</b>                           | None known.                                                                                                |
| <b>Eye Contact</b>                            | May cause mild eye irritation.                                                                             |
| <b>Ingestion</b>                              | None known                                                                                                 |
| <b>Aggravated Medical Conditions</b>          | None known.                                                                                                |
| <b>Chronic Effects/Carcinogenicity</b>        | No data available to indicate product or components present at greater than 1% are chronic health hazards. |
| <b>Other Information</b>                      | None known.                                                                                                |
| <b>Toxicity Tests</b>                         |                                                                                                            |
| <b>Oral Toxicity:</b>                         | Not determined                                                                                             |
| <b>Dermal Toxicity:</b>                       | Not determined                                                                                             |
| <b>Inhalation Toxicity:</b>                   | Not determined                                                                                             |
| <b>Primary Irritation Effect:</b>             | Not determined                                                                                             |
| <b>Carcinogenicity</b>                        | Not determined                                                                                             |
| <b>Genotoxicity:</b>                          | Not determined                                                                                             |
| <b>Reproductive / Developmental Toxicity:</b> | Not determined                                                                                             |

## 12. ECOLOGICAL INFORMATION

|                                  |                      |
|----------------------------------|----------------------|
| <b>Mobility (Water/Soil/Air)</b> | Not determined       |
| <b>Persistence/Degradability</b> | Slowly biodegradable |
| <b>Bio-accumulation</b>          | Not determined       |

### Ecotoxicological Information

|                                    |                |
|------------------------------------|----------------|
| <b>Acute Fish Toxicity:</b>        | Not determined |
| <b>Acute Crustaceans Toxicity:</b> | Not determined |
| <b>Acute Algae Toxicity:</b>       | Not determined |
| <b>Chemical Fate Information</b>   | Not determined |
| <b>Other Information</b>           | Not applicable |

## 13. DISPOSAL CONSIDERATIONS

|                               |                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------|
| <b>Disposal Method</b>        | Disposal should be made in accordance with federal, state, and local regulations. |
| <b>Contaminated Packaging</b> | 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

|                                           |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| <b>Australian AICS Inventory</b>          | All components listed on inventory or are exempt.          |
| <b>New Zealand Inventory of Chemicals</b> | This product does not comply with NZIOC                    |
| <b>US TSCA Inventory</b>                  | All components listed on inventory or are exempt.          |
| <b>EINECS Inventory</b>                   | This product, and all its components, complies with EINECS |

**Classification** None.

**Risk Phrases** R53 May cause long-term adverse effects in the aquatic environment.

**Safety Phrases** S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

## 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\*\*\***