

MATERIAL SAFETY DATA SHEET

Product Trade Name: FACTANT

Revision Date: 20-Dec-2012

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
New Zealand: 06-7559274

Fire, Police & Ambulance - Emergency Telephone

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

Identification of Substances or Preparation

Product Trade Name: FACTANT
Synonyms: None
Chemical Family: Blend
UN Number: None
Dangerous Goods Class: None
Subsidiary Risk: None
Hazchem Code: None Allocated
Poisons Schedule: None Allocated
Application: Emulsifier

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | CAS Number | PERCENT | Australia NOHSC | New Zealand WES | ACGIH TLV-TWA |
|---|------------|---------|--------------------|--------------------|----------------|
| Hydrotreated light petroleum distillate | 64742-47-8 | 1 - 5% | Not applicable | Not applicable | Not applicable |

Non-Hazardous Substance to Total of 100%

3. 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 | Not Determined |

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 | Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. |
| Notes to Physician | Not Applicable |

5. FIRE FIGHTING MEASURES

| | |
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| Suitable Extinguishing Media | Carbon dioxide, dry chemical, foam. |
| Extinguishing media which must not be used for safety reasons | None known. |
| Special Exposure Hazards | Use water spray to cool fire exposed surfaces. 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

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| Personal Precautionary Measures | Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas. |
| 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

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|-----------------------------|---|
| 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. Product has a shelf life of 6 months. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|------------------------|---|
| Engineering Controls | Use in a well ventilated area. |
| Respiratory Protection | 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 | 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

| | |
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| Physical State: | Liquid |
| Color: | Clear amber |
| Odor: | Mild Hydrocarbon |
| pH: | Not Determined |
| Specific Gravity @ 20 C (Water=1): | 0.96 |
| Density @ 20 C (kg/l): | 0.96 |
| Bulk Density @ 20 C (kg/m ³): | Not Determined |
| Boiling Point/Range (C): | Not Determined |
| Freezing Point/Range (C): | -4 - -5 |
| Pour Point/Range (C): | Not Determined |
| Flash Point/Range (C): | Not Determined |
| Flash Point Method: | PMCC |
| Autoignition Temperature (C): | > 220 |
| Flammability Limits in Air - Lower (g/m ³): | Not Determined |
| Flammability Limits in Air - Lower (%): | Not Determined |
| Flammability Limits in Air - Upper (g/m ³): | Not Determined |
| Flammability Limits in Air - Upper (%): | Not Determined |
| Vapor Pressure @ 20 C (mmHg): | < 0.2 |
| Vapor Density (Air=1): | Not Determined |
| Percent Volatiles: | 10 |
| Evaporation Rate (Butyl Acetate=1): | < 0.01 |
| Solubility in Water (g/100ml): | Insoluble |
| 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 |
| Hazardous Polymerization: | Will Not Occur |
| Conditions to Avoid | None anticipated |
| Incompatibility (Materials to Avoid) | Strong oxidizers. |

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| Hazardous Decomposition Products | Carbon monoxide and carbon dioxide. |
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| Additional Guidelines | Not Applicable |
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11. TOXICOLOGICAL INFORMATION

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|------------------------------------|----------------------------------|
| Principle Route of Exposure | Eye or skin contact, inhalation. |
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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.

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| Skin Contact | May cause skin defatting with prolonged exposure. May cause skin irritation. |
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| | |
|--------------------|---------------------------|
| Eye Contact | May cause eye irritation. |
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| Ingestion | Irritation of the mouth, throat, and stomach. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. |
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|--------------------------------------|-------------|
| Aggravated Medical Conditions | None known. |
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| Chronic Effects/Carcinogenicity | No data available to indicate product or components present at greater than 1% are chronic health hazards. |
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|--------------------------|-------------|
| Other Information | None known. |
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Toxicity Tests

| | |
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| Oral Toxicity: | Not determined |
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|-------------------------|----------------|
| Dermal Toxicity: | Not determined |
|-------------------------|----------------|

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|-----------------------------|----------------|
| Inhalation Toxicity: | Not determined |
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| Primary Irritation Effect: | Not determined |
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|------------------------|----------------|
| Carcinogenicity | Not determined |
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| Genotoxicity: | Not determined |
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|---|----------------|
| Reproductive / Developmental Toxicity: | Not determined |
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12. ECOLOGICAL INFORMATION

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| Mobility (Water/Soil/Air) | Not determined |
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|----------------------------------|----------------|
| Persistence/Degradability | Not determined |
|----------------------------------|----------------|

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|-------------------------|----------------|
| Bio-accumulation | Not determined |
|-------------------------|----------------|

Ecotoxicological Information

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|-----------------------------|----------------|
| Acute Fish Toxicity: | Not determined |
|-----------------------------|----------------|

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|------------------------------------|----------------|
| 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 | Product contains one or more components not listed on inventory. |
| 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 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.

Disclaimer Statement

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