

**MATERIAL SAFETY DATA SHEET****Product Trade Name:** EX-269**Revision Date:** 23-Apr-2014**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Trade Name:** EX-269  
**Synonyms:** None  
**Chemical Family:** Carbohydrate  
**Application:** Gelling Agent

**Manufacturer/Supplier** Halliburton Energy Services, Inc.  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Emergency Telephone: (281) 575-5000

**Prepared By** Chemical Compliance  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

| Substances                       | CAS Number  | PERCENT (w/w) | ACGIH TLV-TWA  | OSHA PEL-TWA   |
|----------------------------------|-------------|---------------|----------------|----------------|
| Contains no hazardous substances | PROPRIETARY | 60 - 100%     | Not applicable | Not applicable |

**3. HAZARDS IDENTIFICATION**

**Hazard Overview** May cause mild eye, skin, and respiratory irritation. Airborne dust may be explosive.

**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. Remove contaminated clothing and launder before reuse.

**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** Under normal conditions, first aid procedures are not required.

**Notes to Physician** Not Applicable

## 5. FIRE FIGHTING MEASURES

|   |                |
|---|----------------|
| Flash Point/Range (F):                  | 430            |
| Flash Point/Range (C):                  | 221            |
| Flash Point Method:                     | Not Determined |
| Autoignition Temperature (F):           | 752            |
| Autoignition Temperature (C):           | 400            |
| Flammability Limits in Air - Lower (%): | Not Determined |
| Flammability Limits in Air - Upper (%): | Not Determined |

**Fire Extinguishing Media** Water fog, carbon dioxide, foam, dry chemical.

**Special Exposure Hazards** Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

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

**NFPA Ratings:** Health 0, Flammability 1, Reactivity 0  
**HMIS Ratings:** Health 0, Flammability 1, Physical Hazard 0 , PPE: X

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures** Avoid creating and breathing dust.

**Environmental Precautionary Measures** None known.

**Procedure for Cleaning / Absorption** Scoop up and remove.

## 7. HANDLING AND STORAGE

**Handling Precautions** Avoid creating or inhaling dust. Avoid dust accumulations. Slippery when wet. Ground and bond containers when transferring from one container to another.

**Storage Information** Store away from oxidizers. Store in a dry location. Product has a shelf life of 36 months.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls** A well ventilated area to control dust levels. Local exhaust ventilation should be used in areas without good cross ventilation.

**Respiratory Protection** If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:  
Dust/mist respirator. (N95, P2/P3)

|                          |   |
|--------------------------|---|
| <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>                            | Powder         |
| <b>Color:</b>                                     | White to tan   |
| <b>Odor:</b>                                      | Odorless       |
| <b>pH:</b>  | 6.5-9 (1%)     |
| <b>Specific Gravity @ 20 C (Water=1):</b>         | 1.6            |
| <b>Density @ 20 C (lbs./gallon):</b>              | Not Determined |
| <b>Bulk Density @ 20 C (lbs/ft3):</b>             | 40-55          |
| <b>Boiling Point/Range (F):</b>                   | Not Determined |
| <b>Boiling Point/Range (C):</b>                   | Not Determined |
| <b>Freezing Point/Range (F):</b>                  | Not Determined |
| <b>Freezing Point/Range (C):</b>                  | Not Determined |
| <b>Vapor Pressure @ 20 C (mmHg):</b>              | Not Determined |
| <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>             | Forms gel      |
| <b>Solubility in Solvents (g/100ml):</b>          | Not Determined |
| <b>VOCs (lbs./gallon):</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 |

## 10. STABILITY AND REACTIVITY

|   |                                     |
|---|-------------------------------------|
| <b>Stability Data:</b>                      | Stable                              |
| <b>Hazardous Polymerization:</b>            | Will Not Occur                      |
| <b>Conditions to Avoid</b>                  | None known.                         |
| <b>Incompatibility (Materials to Avoid)</b> | Strong oxidizers.                   |
| <b>Hazardous Decomposition Products</b>     | 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. |
|------------------------------------|----------------------------------|

### Symptoms related to exposure

|                       |                                   |
|-----------------------|-----------------------------------|
| <b>Acute Toxicity</b> |                                   |
| <b>Inhalation</b>     | May cause respiratory irritation. |

**Eye Contact**  
**Skin Contact**  
**Ingestion**

May cause mechanical irritation to eye.  
Prolonged or repeated contact may cause slight skin irritation.  
None known

**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   |
|----------------------------------|-------------|-------------------|-------------------|-------------------|
| Contains no hazardous substances | PROPRIETARY | No data available | No data available | No data available |

**12. ECOLOGICAL INFORMATION**

**Ecotoxicological Information**

**Ecotoxicity Product**

**Acute Fish Toxicity:** TLM96: > 500 mg/l (Golden orfe)  
LC50: (96 hour) > 21,000 ppm (Oncorhynchus mykiss)  
TLM96: > 56,000 ppm (Gasterosteus aculeatus)  
**Acute Crustaceans Toxicity:** Not determined  
**Acute Algae Toxicity:** Not determined

**Ecotoxicity Substance**

| Substances                       | CAS Number  | Toxicity to Algae        | Toxicity to Fish         | Toxicity to Microorganisms | Toxicity to Invertebrates |
|----------------------------------|-------------|--------------------------|--------------------------|----------------------------|---------------------------|
| Contains no hazardous substances | PROPRIETARY | No information available | No information available | No information available   | No information available  |

**12.2 Persistence and degradability**

Readily biodegradable

**12.3 Bioaccumulative potential**

No information available

**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 Method**

Bury in a licensed landfill according to federal, state, and local regulations.

**Contaminated Packaging**

Follow all applicable national or local regulations.

**14. TRANSPORT INFORMATION**

**US DOT**

**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable

**US DOT Bulk**  
**DOT (Bulk)** Not Applicable

**Canadian TDG ul0**  
**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable

**IMDG/IMO**  
**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable

**IATA/ICAO**  
**UN Number:** Not restricted.  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable  
**Special Precautions for User** None

## 15. REGULATORY INFORMATION

### US Regulations

**US TSCA Inventory** All components listed on inventory or are exempt.

**EPA SARA Title III Extremely Hazardous Substances** Not applicable

**EPA SARA (311,312) Hazard Class** None

**EPA SARA (313) Chemicals** This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

**EPA CERCLA/Superfund Reportable Spill Quantity** Not applicable.

**EPA RCRA Hazardous Waste Classification** If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

**California Proposition 65** All components listed do not apply to the California Proposition 65 Regulation.

**MA Right-to-Know Law** Does not apply.

**NJ Right-to-Know Law** Does not apply.

**PA Right-to-Know Law** Does not apply.

### Canadian Regulations

**Canadian DSL Inventory** All components listed on inventory or are exempt.

**WHMIS Hazard Class** Un-Controlled

## 16. OTHER INFORMATION

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

Not applicable

### 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\*\*\***