

## MATERIAL SAFETY DATA SHEET

**Product Trade Name:** DCA-23002

**Revision Date:** 12-May-2014

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name:** DCA-23002  
**Synonyms:** None  
**Chemical Family:** Salt Polymer Blend  
**Application:** Friction Reducer  
**Manufacturer/Supplier:** Halliburton Energy Services, Inc.  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Emergency Telephone: (281) 575-5000  
**Prepared By:** Chemical Compliance  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances      | CAS Number | PERCENT (w/w) | ACGIH TLV-TWA  | OSHA PEL-TWA   |
|-----------------|------------|---------------|----------------|----------------|
| Sodium chloride | 7647-14-5  | 60 - 100%     | Not applicable | Not applicable |

### 3. HAZARDS IDENTIFICATION

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

### 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** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

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

**Notes to Physician** Not Applicable

## 5. FIRE FIGHTING MEASURES

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

**Fire Extinguishing Media** Water spray, dry chemical, or foam.

**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** Not applicable.

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

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures** Use appropriate protective equipment. Avoid creating and breathing dust.

**Environmental Precautionary Measures** Prevent from entering sewers, waterways, or low areas.

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

## 7. HANDLING AND STORAGE

**Handling Precautions** Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. Ground and bond containers when transferring from one container to another. Slippery when wet.

**Storage Information** Store in a cool, dry location. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Keep from heat, sparks, and open flames. Product has a shelf life of 24 months.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls** Use in a well ventilated area.

**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          |
| <b>Odor:</b>                                      | Slight         |
| <b>pH:</b>  | 9 (.5%)        |
| <b>Specific Gravity @ 20 C (Water=1):</b>         | 2.0            |
| <b>Density @ 20 C (lbs./gallon):</b>              | Not Determined |
| <b>Bulk Density @ 20 C (lbs/ft3):</b>             | Not Determined |
| <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>             | Soluble        |
| <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 anticipated                             |
| <b>Incompatibility (Materials to Avoid)</b> | Strong oxidizers.                            |
| <b>Hazardous Decomposition Products</b>     | Carbon monoxide and carbon dioxide. Ammonia. |
| <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 mild respiratory irritation. |

**Eye Contact** May cause mild eye irritation.  
**Skin Contact** May cause mild skin irritation.  
**Ingestion** Large doses may cause nausea, vomiting and diarrhea.

**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                 |
|-----------------|------------|----------------|--------------------|---------------------------------|
| Sodium chloride | 7647-14-5  | 3 g/kg ( Rat ) | 10 g/kg ( Rabbit ) | 42 g/m <sup>3</sup> ( Rat ) 1 h |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological Information

#### Ecotoxicity Product

**Acute Fish Toxicity:** LC50 (96): > 100 mg/l  
**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   |
|-----------------|------------|---|---|---|---|
| Sodium chloride | 7647-14-5  | EC50(120h): 2430 mg/L (cell number) (Nitzschia sp.) | TLM96: > 1000 mg/l (Oncorhynchus mykiss)<br>LC50(96h): 5840 mg/L (Lepomis macrochirus)<br>NOEC(33d): 252 mg/L (Pimephales promelas) | EC10 <= 35000 mg/L;<br>NOEC 5000 – 8000 mg/L (activated sludge)<br>NOEC 292-584 mg/L (Escherichia coli) | TLM96: > 1,000,000 ppm (Mysidopsis bahia)<br>LC50(48h): 874 - 4136mg/L (Daphnia magna)<br>NOEC(21d): 314 mg/L (Daphnia pulex) |

#### 12.2 Persistence and degradability

No information available

| Substances      | Persistence and Degradability  |
|-----------------|--|
| Sodium chloride | The methods for determining biodegradability are not applicable to inorganic substances. |

#### 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** The California Proposition 65 regulations apply to this product.

**MA Right-to-Know Law** One or more components listed.

**NJ Right-to-Know Law** One or more components listed.

**PA Right-to-Know Law** One or more components listed.

### 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.

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