

MATERIAL SAFETY DATA SHEET**Product Trade Name: DCA-25011****Revision Date:** 09-Sep-2014**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Trade Name: DCA-25011
Synonyms: None
Chemical Family: Blend
Application: Acid gelling polymer

Manufacturer/Supplier Halliburton Energy Services, Inc.
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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 |
|-----------------|-------------|---------------|---------------------|---------------------|
| Modified alkane | Proprietary | 10 - 30% | 5 mg/m ³ | 5 mg/m ³ |

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory irritation. May be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

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 Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

| | |
|---|----------------|
| Flash Point/Range (F): | > 200 |
| Flash Point/Range (C): | > 93 |
| Flash Point Method: | COC |
| 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 | Carbon Dioxide, Dry Chemicals, Foam. |
| Special Exposure Hazards | Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. 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. |
| NFPA Ratings: | Health 1, Flammability 1, Reactivity 0 |
| HMIS Ratings: | Health 1, Flammability 1, Physical Hazard 0 |

6. 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. |

7. HANDLING AND STORAGE

| | |
|----------------------|--|
| Handling Precautions | Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist. |
| Storage Information | Store away from oxidizers. Keep container closed when not in use. Store in a cool, dry location. Store in a well ventilated area. Product has a shelf life of 24 months. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|------------------------|---|
| Engineering Controls | Use in a well ventilated area. |
| Respiratory Protection | <p>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.</p> <p>Not normally needed. But if significant exposures are possible then the following respirator is recommended:</p> <p>Organic vapor respirator with a dust/mist filter. (A2P2/P3)</p> |
| Hand Protection | Impervious rubber gloves. Use Viton or 4H gloves. Nitrile gloves. Neoprene 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

| | |
|---|--------------------|
| Physical State: | Liquid |
| Color: | White, opaque |
| Odor: | Mild hydrocarbon |
| pH: | 6-8 (5% IPA/water) |
| Specific Gravity @ 20 C (Water=1): | 1.028-1.04 |
| Density @ 20 C (lbs./gallon): | 8.56-8.66 |
| Bulk Density @ 20 C (lbs/ft3): | Not Determined |
| Boiling Point/Range (F): | 212 |
| Boiling Point/Range (C): | 100 |
| Freezing Point/Range (F): | -20 |
| Freezing Point/Range (C): | -28.9 |
| Vapor Pressure @ 20 C (mmHg): | 15.7 |
| Vapor Density (Air=1): | > 1 |
| Percent Volatiles: | Not Determined |
| Evaporation Rate (Butyl Acetate=1): | Not Determined |
| Solubility in Water (g/100ml): | Disperses |
| Solubility in Solvents (g/100ml): | Not Determined |
| VOCs (lbs./gallon): | Not Determined |
| Viscosity, Dynamic @ 20 C (centipoise): | 1000-2000 |
| Viscosity, Kinematic @ 20 C (centistokes): | Not Determined |
| Partition Coefficient/n-Octanol/Water: | Not Determined |
| Molecular Weight (g/mole): | 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. |
| Hazardous Decomposition Products | Oxides of sodium. Carbon monoxide and carbon dioxide. Oxides of sulfur. |
| Additional Guidelines | Not Applicable |

11. TOXICOLOGICAL INFORMATION

| | |
|------------------------------------|-----------------------|
| Principle Route of Exposure | Eye and skin contact. |
|------------------------------------|-----------------------|

Symptoms related to exposure

Acute Toxicity

Inhalation

May cause respiratory irritation. If heated: May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause eye irritation

Skin Contact
Ingestion

May cause skin defatting with prolonged exposure. May cause skin irritation.
Irritation of the mouth, throat, and stomach. 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.

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 |
|-----------------|-------------|-------------------|-------------------|-------------------|
| Modified alkane | Proprietary | No data available | No data available | No data available |

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Ecotoxicity Product

Acute Fish Toxicity: Not determined
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 |
|-----------------|-------------|--------------------------|--------------------------|----------------------------|---------------------------|
| Modified alkane | Proprietary | No information available | No information available | No information available | No information available |

12.2. Persistence and degradability

No information available

| Substances | CAS Number | Persistence and Degradability |
|-----------------|-------------|-------------------------------|
| Modified alkane | Proprietary | No information available |

12.3. Bioaccumulative potential

No information available

| Substances | CAS Number | Log Pow |
|-----------------|-------------|--------------------------|
| Modified alkane | Proprietary | 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

Disposal should be made in accordance with 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 Acute Health Hazard

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 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.

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*****