

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

Initial Report     Final Report

Name of Company <b>Halliburton Energy Services</b>		Contact <b>Bob Heltzel</b>
Address <b>2311 S. First, Artesia, NM 88210</b>		Telephone No. <b>Office - (432) 571-8627    Mobile - (432) 208-7052</b>
Facility Name <b>Geronimo FED COM 11H</b>		Facility Type <b>Oil &amp; Gas Well Site Location</b>
Surface Owner	Mineral Owner <b>COG Operating</b>	API No. <span style="border: 1px solid red; padding: 2px;"><b>30-025-43503</b></span>

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>K</b>	<b>19</b>	<b>195</b>	<b>33E</b>					<b>Lea</b>

Latitude 32.640597    Longitude -103.709875    NAD83

### NATURE OF RELEASE

Type of Release <b>Minor</b>	Volume of Release <b>350 gal</b>	Volume Recovered <b>est ~345 gal</b>
Source of Release <b>ISO Container in chemical blending area</b>	Date/Hr of Occurrence <b>4/27/17 @ 16:15</b>	Date/Hr of Discovery <b>4/27/17 @ 16:45</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**RECEIVED**  
**By Olivia Yu at 1:51 pm, May 12, 2017**

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
**While transferring non-hazardous chemical, DCA-23003 Friction Reducer (FR) polymer blend from ISO container to a tote, employee left process unattended. Upon realizing his error, employee returned to close valve and stop release. The substance involved is a high-viscosity liquid, therefore it did not spread beyond the immediate area. Oil diapers/spill pigs from the spill kit were placed around exterior of the spill to prevent it from spreading. SESI Inc., a spill remediation company out of Hobbs, NM, was contacted to remediate the non-hazardous substance spill.**

Describe Area Affected and Cleanup Action Taken.\*  
**Area affected was a compacted caliche well pad. SESI Inc. dispatched a vacuum truck to suction up the FR chemical (SDS attached) and haul it off to a state-licensed oilfield waste facility. SESI Inc. assessed the soil-saturation aspects of the event. Operator dispatched a grader/blade to remove any FR-saturated soil. Fresh caliche was used to replace FR-saturated caliche.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Chris Gatjanis</b>	Approved by Environmental Specialist:	
Title: <b>Vice President US Southern Region</b>	Approval Date: <span style="border: 1px solid red; padding: 2px;"><b>5/12/2017</b></span>	Expiration Date:
E-mail Address: <a href="mailto:chris.gatjanis@halliburton.com">chris.gatjanis@halliburton.com</a>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>5/11/2017</b> Phone: <b>(432) 683-0286</b>		

\* Attach Additional Sheets If Necessary

**nOY1713250153**
**pOY1717829365**
**1RP-4699**

## SAFETY DATA SHEET

**Product Trade Name:** DCA-23003

**Revision Date:** 12-Jun-2015

**Revision Number:** 3

### 1. Identification

#### 1.1. Product Identifier

**Product Trade Name:** DCA-23003  
**Synonyms:** None  
**Chemical Family:** Polymer Blend  
**Internal ID Code** HM008080

#### 1.2 Recommended use and restrictions on use

**Application:** Friction Reducer  
**Uses Advised Against** No information available

#### 1.3 Manufacturer's Name and Contact Details

##### **Manufacturer/Supplier**

Halliburton Energy Services, Inc.  
P.O. Box 1431  
Duncan, Oklahoma 73536-0431  
Emergency Telephone: (1-866-519-4752 (US, Canada, Mexico) or 1-760-476-3962

Halliburton Energy Services  
645 - 7th Ave SW Suite 2200  
Calgary, AB  
T2P 4G8  
Canada

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

#### 1.4. Emergency telephone number

**Emergency Telephone Number** (281) 575-5000

### 2. Hazard(s) Identification

#### 2.1 Classification in accordance with paragraph (d) of §1910.1200

As adopted by the competent authority, this product does not require an SDS or hazard warning label.

Not classified

#### 2.2. Label Elements

##### **Hazard Pictograms**

**Signal Word** Not Classified

**Hazard Statements** Not Hazardous

##### **Precautionary Statements**

<b>Prevention</b>	None
<b>Response</b>	None
<b>Storage</b>	None
<b>Disposal</b>	None

**Contains****Substances**

Ethoxylated branched C13 alcohol  
Hydrotreated light petroleum distillate

**CAS Number**

78330-21-9  
64742-47-8

**2.3 Hazards not otherwise classified**

None known

**3. Composition/information on Ingredients**

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Ethoxylated branched C13 alcohol	78330-21-9	1 - 5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Corr. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Hydrotreated light petroleum distillate	64742-47-8	10 - 30%	STOT SE 3 (H336) Asp. Tox. 1 (H304)

The exact percentage (concentration) of the composition has been withheld as proprietary.

**4. First-Aid Measures****4.1. Description of first aid measures****Inhalation**

If inhaled, move victim to fresh air and seek medical attention.

**Eyes**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Skin**

Wash with soap and water. Get medical attention if irritation persists. Remove contaminated clothing and launder before reuse.

**Ingestion**

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person.

**4.2 Most important symptoms/effects, acute and delayed**

No significant hazards expected.

**4.3. Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically.

**5. Fire-fighting measures****5.1. Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**

None known.

**5.2 Specific hazards arising from the substance or mixture****Special Exposure Hazards**

Product is not expected to burn unless all the water is boiled away. Decomposition in fire may produce harmful gases. Use water spray to cool fire exposed surfaces.

**5.3 Special protective equipment and precautions for fire-fighters****Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Spills of this product are very slippery. See Section 8 for additional information

**6.2. Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**6.3. Methods and material for containment and cleaning up**

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove. Do NOT spread spilled product with water.

**7. Handling and storage****7.1. Precautions for Safe Handling****Handling Precautions**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Information**

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Store at temperatures between 40 and 90 F (5 and 35 C). Keep from freezing. Product has a shelf life of 6 months.

**8. Exposure Controls/Personal Protection****8.1 Occupational Exposure Limits**

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable

**8.2 Appropriate engineering controls****Engineering Controls**

Use in a well ventilated area.

**8.3 Individual protection measures, such as personal protective equipment****Personal Protective Equipment**

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

**Respiratory Protection**

Not normally needed. But if significant exposures are possible then the following respirator is recommended:

<b>Hand Protection</b>	Organic vapor respirator with a dust/mist filter. (A2P2/P3)
<b>Skin Protection</b>	Impervious rubber gloves. Polyvinylchloride gloves. Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact. Launder contaminated clothing before reuse.
<b>Eye Protection</b>	Chemical goggles; also wear a face shield if splashing hazard exists.
<b>Other Precautions</b>	Eyewash fountains and safety showers must be easily accessible.

## 9. Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Physical State:</b> Liquid	<b>Color:</b> Off white
<b>Odor:</b> Hydrocarbon	<b>Odor</b> No information available
	<b>Threshold:</b>

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
<b>pH:</b>	5 - 8
<b>Freezing Point/Range</b>	No data available
<b>Melting Point/Range</b>	< 5 °C / < 41 °F
<b>Boiling Point/Range</b>	> 100 °C / 212 °F
<b>Flash Point</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
upper flammability limit	No data available
lower flammability limit	No data available
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	17.25 mmHg
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	1.0 - 1.1
<b>Water Solubility</b>	Miscible with water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	> 20.5 mm <sup>2</sup> /s
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

### 9.2. Other information

<b>VOC Content (%)</b>	No data available
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## 10. Stability and Reactivity

### 10.1. Reactivity

Not expected to be reactive.

### 10.2. Chemical Stability

Stable

### 10.3. Possibility of Hazardous Reactions

Will Not Occur

### 10.4. Conditions to Avoid

Freezing conditions.  
Extremes of temperature and direct sunlight

### 10.5. Incompatible Materials

Strong oxidizers.

**10.6. Hazardous Decomposition Products**

Carbon monoxide and carbon dioxide. Oxides of nitrogen. Hydrogen cyanide.

**11. Toxicological Information****11.1 Information on likely routes of exposure****Principle Route of Exposure** Eye or skin contact, inhalation.**11.2 Symptoms related to the physical, chemical and toxicological characteristics****Acute Toxicity****Inhalation**

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

**Eye Contact**

In vitro tests indicate that the product is not an eye irritant.

**Skin Contact**

Prolonged or repeated contact may cause skin irritation.

**Ingestion**

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. May act as obstruction if swallowed.

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 0.1% are chronic health hazards.**11.3 Toxicity data****Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethoxylated branched C13 alcohol	78330-21-9	1700 mg/kg (Rat) 1650 mg/kg (Dog) 1100 mg/kg (Rat) (similar substance) 2850 mg/kg (Rat)	> 2000 mg/kg (Rabbit) (similar substance)	> saturated concentration (similar substance)
Hydrotreated light petroleum distillate	64742-47-8	> 5000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	> 5.28 mg/L (Rat) 4h (similar substance)

Substances	CAS Number	Skin corrosion/irritation
Ethoxylated branched C13 alcohol	78330-21-9	Causes moderate skin irritation. (Rabbit) (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to the skin (similar substances)

Substances	CAS Number	Eye damage/irritation
Ethoxylated branched C13 alcohol	78330-21-9	Causes severe eye irritation which may damage tissue. (Rabbit) (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Ethoxylated branched C13 alcohol	78330-21-9	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)

Substances	CAS Number	Respiratory Sensitization
Ethoxylated branched C13 alcohol	78330-21-9	No information available
Hydrotreated light petroleum distillate	64742-47-8	No information available

Substances	CAS Number	Mutagenic Effects
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Ethoxylated branched C13 alcohol	78330-21-9	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)

Substances	CAS Number	Carcinogenic Effects
Ethoxylated branched C13 alcohol	78330-21-9	Did not show carcinogenic or teratogenic effects in animal experiments (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Ethoxylated branched C13 alcohol	78330-21-9	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)

Substances	CAS Number	STOT - single exposure
Ethoxylated branched C13 alcohol	78330-21-9	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	May cause disorder and damage to the Central Nervous System (CNS) (similar substances)

Substances	CAS Number	STOT - repeated exposure
Ethoxylated branched C13 alcohol	78330-21-9	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Hydrotreated light petroleum distillate	64742-47-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)

Substances	CAS Number	Aspiration hazard
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

## 12. Ecological Information

### 12.1. Toxicity Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Ethoxylated branched C13 alcohol	78330-21-9	EC50 (48h) 2-4 mg/L (Selenastrum capricornutum) (similar substance) ErC50 (72h) 0.282 mg/L (Selenastrum capricornutum) (similar substance) ErC10 0.137 mg/L (Scenedesmus subspicatus) (similar substance)	2.6 mg/L (Brachydanio rerio) (similar substance) LC50 (96h) 1.1 mg/L (Salmo gairdneri) (similar substance) NOEC 0.88 mg/L (reproduction) (Lepomis macrochirus) (similar substance)	No information available	EC50 (48h) 1.2 mg/L (Daphnia magna) (Similar substance) EC50 (48h) 0.6 mg/L (Daphnia magna) (Similar substance) NOEC (21d) 0.77 mg/L (reproduction) (Daphnia magna) (Similar substance)
Hydrotreated light petroleum distillate	64742-47-8	EC50 (72h) > 1,000 mg/L (Skeletonema costatum) ErL50 (72h) > 1000 mg/L (Pseudokirchneriella subcapitata) EbL50 (72h) > 1000 mg/L	LC50 (96h) > 10,000 mg/L (Scopthalmus maximus) LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss)	No information available	LC50 (48h) > 10,000 mg/L (Acartia tonsa) EC50 (48h) 1100 mg/L (Daphnia pulex) LC50 (48h) 0.12 mg/L (Daphnia magna)

		(Pseudokirchneriella subcapitata) NOELR (72h) 1000 mg/L (Pseudokirchneriella subcapitata)			EL50 (48h) > 1000 mg/L (Daphnia magna)
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## 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Ethoxylated branched C13 alcohol	78330-21-9	Readily biodegradable (85% @ 28d)
Hydrotreated light petroleum distillate	64742-47-8	Readily biodegradable (40% @ 28d)

## 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Substances	CAS Number	Log Pow
Ethoxylated branched C13 alcohol	78330-21-9	5.17
Hydrotreated light petroleum distillate	64742-47-8	No information available

## 12.4. Mobility in soil

Substances	CAS Number	Mobility
Ethoxylated branched C13 alcohol	78330-21-9	Kd = 3.07 L/kg Kd = 3.09 L/kg
Hydrotreated light petroleum distillate	64742-47-8	No information available

## 12.5 Other adverse effects

No information available

## 13. Disposal Considerations

### 13.1. Waste treatment methods

**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  
**Environmental Hazards:** Not applicable

### US DOT Bulk

**DOT (Bulk)** Not applicable

### Canadian TDG

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

### IMDG/IMO

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

**Environmental Hazards:** Not applicable

**IATA/ICAO**

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

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	Not applicable

**EPA SARA (311,312) Hazard Class**

None

**EPA SARA (313) Chemicals**

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	Not applicable	Not applicable

**EPA CERCLA/Superfund Reportable Spill Quantity**

Substances	CAS Number	CERCLA RQ
Ethoxylated branched C13 alcohol	78330-21-9	Not applicable
Hydrotreated light petroleum distillate	64742-47-8	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.

## 16. Other information

**Preparation Information**

**Prepared By** Chemical Stewardship

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Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

**Revision Date:** 12-Jun-2015  
**Reason for Revision** SDS sections updated:  
2

**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 Stewardship at 1-580-251-4335.

**Key or legend to abbreviations and acronyms**

bw – body weight  
CAS – Chemical Abstracts Service  
EC50 – Effective Concentration 50%  
ErC50 – Effective Concentration growth rate 50%  
LC50 – Lethal Concentration 50%  
LD50 – Lethal Dose 50%  
LL50 – Lethal Loading 50%  
mg/kg – milligram/kilogram  
mg/L – milligram/liter  
NIOSH – National Institute for Occupational Safety and Health  
NTP – National Toxicology Program  
OEL – Occupational Exposure Limit  
PEL – Permissible Exposure Limit  
ppm – parts per million  
STEL – Short Term Exposure Limit  
TWA – Time-Weighted Average  
UN – United Nations  
h - hour  
mg/m<sup>3</sup> - milligram/cubic meter  
mm - millimeter  
mmHg - millimeter mercury  
w/w - weight/weight  
d - day

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)  
OSHA  
ECHA C&L

**Disclaimer Statement**

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**End of Safety Data Sheet**