

SAFETY DATA SHEET CLAY-DRILL

Product Trade Name:

Revision Date: 24-Jul-2018

Revision Number: 3

1. Identification

1.1. Product Identifier

Product Trade Name: CLAY-DRILL
Synonyms: None
Chemical Family: Polymer Blend
Internal ID Code: HM008265

1.2 Recommended use and restrictions on use

Application: Drilling Fluid
Uses advised against: Consumer use

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier

Baroid Industrial Drilling Products
Product Service Line of Halliburton Energy Services, Inc.
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4613 or 1-877-379-7412

Baroid Industrial Drilling Products
645 - 7th Ave SW Suite 1800
Calgary, AB
T2P 4G8
Canada
Telephone: 1-403-231-9300

Prepared By: Chemical Stewardship
Telephone: 1-281-871-6107
e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number:

Emergency Telephone Number: 1-866-519-4752 or 1-760-476-3962
Global Incident Response Access Code: 334305
Contract Number: 14012

2. Hazards Identification

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

Combustible dust

Combustible dust

2.2. Label Elements

Hazard Pictograms

Signal Word: Warning

Hazard Statements: Not Hazardous

May form combustible dust concentrations in air.

Precautionary Statements

Prevention	None
Response	None
Storage	None
Disposal	None

2.3 Hazards not otherwise classified

None known

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Anionic polyacrylamide	Proprietary	60 - 100%	Combustible Dust
Polyalkylene glycol	Proprietary	10 - 30%	Combustible Dust

The specific chemical identity of the composition has been withheld as proprietary.

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, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
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.
Ingestion	Rinse mouth with water many times. Get medical attention, if symptoms occur

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

All standard fire fighting media

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 in a fire

Decomposition in fire may produce harmful gases. Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

5.3 Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters

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. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid creating and breathing dust. Remove sources of ignition. Use only competent persons for cleanup. Slippery when wet. See Section 8 for additional information

6.2. Environmental precautions

None known.

6.3. Methods and material for containment and cleaning up

Scoop up and remove.

Cover powder spill with plastic sheet or tarp to minimize spreading

7. Handling and storage

7.1. Precautions for safe handling

Handling Precautions

Use appropriate protective equipment. Avoid contact with eyes, skin, or clothing. Ensure adequate ventilation. Avoid creating or inhaling dust. Avoid dust accumulations. Remove sources of ignition. Slippery when wet.

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, dry location. Keep container closed when not in use. Keep from heat, sparks, and open flames. Product has a shelf life of 24 months.

8. Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Anionic polyacrylamide	Proprietary	Not applicable	Not applicable
Polyalkylene glycol	Proprietary	Not applicable	Not applicable

8.2 Appropriate engineering controls

Engineering Controls

Localized ventilation should be used to control dust levels.

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 necessary.

Dust/mist respirator. (N95, P2/P3)

Hand Protection

Use gloves which are suitable for the chemicals present in this product as well as other environmental factors in the workplace.

Skin Protection

Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

Eye Protection

Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles, Face-shield.

Other Precautions

None known.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Powder	Color	White to yellow
Odor: Odorless	Odor	No information available
	Threshold:	

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	7-9 (5%)
Freezing Point / Range	No data available
Melting Point / Range	No data available
Boiling Point / Range	103 °C / 219 °F
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	0.75 - 0.95
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%)	8-13%
Bulk Density	48-55 lbs/ft3

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

Keep away from heat, sparks and flame.

10.5. Incompatible materials

Strong oxidizers. Prolonged contact with aluminum. Contact with copper. Contact with iron.

10.6. Hazardous decomposition products

Oxides of nitrogen. Ammonia. Carbon monoxide and carbon dioxide.

11. Toxicological Information

11.1 Information on likely routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation. Ingestion.

11.2 Symptoms related to the physical, chemical and toxicological characteristics**Acute Toxicity**

Inhalation	May cause mild respiratory irritation.
Eye Contact	May cause mechanical irritation to eye.
Skin Contact	None known.
Ingestion	May cause abdominal pain, vomiting, nausea, and diarrhea.

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
Anionic polyacrylamide	Proprietary	Not classified	Not classified	Not classified
Polyalkylene glycol	Proprietary	5700 mg/kg (Rat)	No data available	320 mg/L (Rat) 4h

Substances	CAS Number	Skin corrosion/irritation
Anionic polyacrylamide		No information available
Polyalkylene glycol		Non-irritating to the skin

Substances	CAS Number	Serious eye damage/irritation
Anionic polyacrylamide		No information available
Polyalkylene glycol		Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Anionic polyacrylamide		No information available Not confirmed to cause skin or respiratory sensitization.
Polyalkylene glycol		Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Anionic polyacrylamide		No information available
Polyalkylene glycol		No information available

Substances	CAS Number	Mutagenic Effects
Anionic polyacrylamide		No information available
Polyalkylene glycol		No data of sufficient quality are available.

Substances	CAS Number	Carcinogenic Effects
Anionic polyacrylamide		No information available
Polyalkylene glycol		No information available

Substances	CAS Number	Reproductive toxicity
Anionic polyacrylamide		No information available
Polyalkylene glycol		No data of sufficient quality are available.

Substances	CAS Number	STOT - single exposure
Anionic polyacrylamide		No information available
Polyalkylene glycol		No data of sufficient quality are available.

Substances	CAS Number	STOT - repeated exposure
Anionic polyacrylamide		No information available
Polyalkylene glycol		No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Anionic polyacrylamide		Not applicable
Polyalkylene glycol		Not applicable

12. Ecological Information

12.1. Toxicity

Ecotoxicity effects

Product is not classified as hazardous to the environment.

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Anionic polyacrylamide	Proprietary	No information available	No information available	No information available	No information available
Polyalkylene glycol	Proprietary	No information available	TLM96 315 mg/L (Oncorhynchus mykiss) LC50 (96h) 105 mg/L (Oncorhynchus mykiss)	No information available	EC50 (48h) 236 mg/L (Acartia tonsa) EC50 (48h) 1033 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Anionic polyacrylamide	Proprietary	No information available
Polyalkylene glycol	Proprietary	No information available

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Anionic polyacrylamide	Proprietary	No information available
Polyalkylene glycol	Proprietary	-1.58

12.4. Mobility in soil

Substances	CAS Number	Mobility
Anionic polyacrylamide	Proprietary	No information available
Polyalkylene glycol	Proprietary	No information available

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

Disposal methods

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

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.

TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2
Anionic polyacrylamide	Proprietary	Not applicable
Polyalkylene glycol	Proprietary	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances	CAS Number	EPA SARA Title III Extremely Hazardous Substances
Anionic polyacrylamide	Proprietary	Not applicable
Polyalkylene glycol	Proprietary	Not applicable

EPA SARA (311,312) Hazard Class

Combustible dust

EPA SARA (313) Chemicals

Substances	CAS Number	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Anionic polyacrylamide	Proprietary	Not applicable	Not applicable
Polyalkylene glycol	Proprietary	Not applicable	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Anionic polyacrylamide	Proprietary	Not applicable
Polyalkylene glycol	Proprietary	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

Substances	CAS Number	California Proposition 65
Anionic polyacrylamide	Proprietary	Not applicable
Polyalkylene glycol	Proprietary	Not applicable

U.S. State Right-to-Know Regulations

Substances	CAS Number	MA Right-to-Know Law	NJ Right-to-Know Law	PA Right-to-Know Law
Anionic polyacrylamide	Proprietary	Not applicable	Not applicable	Not applicable
Polyalkylene glycol	Proprietary	Not applicable	Not applicable	Not applicable

NFPA Ratings: Health 0, Flammability 1, Reactivity 0

HMIS Ratings: Health 0, Flammability 1, Physical Hazard 0, PPE: B

Canadian Regulations

Canadian Domestic Substances List (DSL) All components listed on inventory or are exempt.

16. Other information**Preparation Information**

Prepared By Chemical Stewardship
Telephone: 1-281-871-6107
e-mail: fdunexchem@halliburton.com

Revision Date: 24-Jul-2018

Reason for Revision Initial Release

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 used in the safety data sheet

bw – body weight
CAS – Chemical Abstracts Service
d - day
EC50 – Effective Concentration 50%
ErC50 – Effective Concentration growth rate 50%
h - hour
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL50 – Lethal Loading 50%
mg/kg – milligram/kilogram
mg/L – milligram/liter
mg/m³ - milligram/cubic meter
mm - millimeter
mmHg - millimeter mercury
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
w/w - weight/weight

Key literature references and sources for data

www.ChemADVISOR.com/

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End of Safety Data Sheet