



## SAFETY DATA SHEET

HDD-Defense

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : HDD-Defense

Other means of identification : Not applicable.

Recommended use : As a fluid loss control agent for drilling fluids.

Restrictions on use : None Known.

Company : Drillchem Drilling Solutions, LLC  
PO Box 13107  
Spring, TX 77393 USA  
Office: (281) 713-8941

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 02/15/2018

### Section: 2. HAZARDS IDENTIFICATION

#### GHS Classification

Physical Hazards : Not classified.

Health Hazards : Not classified.

Environmental Hazards : Not classified.

OSHA Defined Hazards : Not classified

Supplemental Information : Not Applicable

#### GHS Label element

Hazard pictograms : None

Signal Word : None

Hazard Statements : This product does not meet the criteria for classification.

Precautionary Statements : **Prevention:** Observe good industrial hygiene practices  
**Response:** Wash hands after handling.  
**Storage:** Store away from incompatible materials  
**Disposal:** Dispose of waste and residues in accordance with local authorities requirements.

Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Mixtures Common name and synonyms	CAS Number	%
Natural Plant Fibers		9004-34-6	40 - < 70
Bentonite	Smectite, Clay	1302-78-9	15 - < 35
Other components below reportable levels			0 - < 5

### Section: 4. FIRST AID MEASURES

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- In case of eye contact : Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
- In case of skin contact : Wash off with soap and water. Get medical attention if irritation develops and persists.
- If swallowed : Rinse Mouth. Get medical attention if symptoms occur.
- If inhaled : Move to fresh air. Call a physician if symptoms develop or persist.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
- Most important symptoms and effects, both acute and delayed : Dusts may irritate the respiratory tract, skin and eyes. Prolonged exposure may cause chronic effects.

### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).
- Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.
- Specific hazards during firefighting : During fire, gases hazardous to health may be formed.
- Hazardous combustion products : Not applicable.
- Special protective equipment for firefighters : Material can be slippery when wet. se personal protective equipment.
- Specific extinguishing methods : Use water spray to cool unopened containers. Use standard firefighting procedures and consider the hazards of other involved materials.

### Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
- Environmental precautions : Avoid discharge into drains, water courses or onto the ground.
- Methods and materials for containment and cleaning up : Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading.

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Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS

### Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
- Conditions for safe storage : Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).
- Suitable material : Not determined.
- Unsuitable material : Not determined.

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational Exposure Limits

#### US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Inert or Nuisance Dust	TWA	5 mg/m3	Respirable fraction
		15 mg/m3	Total Dust.
		50 mppcf	Total Dust.
		15 mppcf	Respirable Fraction.

- Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

#### Personal protective equipment

- Eye protection : Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.
- Hand protection : Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

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- Skin protection : Use of an impervious apron is recommended.
- Respiratory protection : Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.
- Hygiene measures : Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Powder, solid
- Colour : Tan to Gray
- Odour : None
- Flash point : No data available.
- pH : Not data available.
- Odour Threshold : No data available.
- Melting point/freezing point : No data available.
- Initial boiling point and boiling range : No data available.
- Evaporation rate : No data available.
- Flammability (solid, gas) : No data available.
- Upper explosion limit : No data available.
- Lower explosion limit : No data available.
- Vapour pressure : No data available.
- Relative vapour density : No data available.
- Relative density : No data available.
- Density : 1.74 g/cm<sup>3</sup> (estimated)
- Water solubility : No data available.
- Solubility in other solvents : No data available.
- Partition coefficient: n-octanol/water : No data available.
- Auto-ignition temperature : No data available.
- Thermal decomposition temperature : No data available.
- Viscosity, dynamic : No data available.
- Viscosity, kinematic : No data available.
- Molecular weight : No data available.
- VOC : No data available.

### Section: 10. STABILITY AND REACTIVITY

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Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Contact with incompatible materials.
Incompatible materials	:	Powerful oxidizers. Chlorine.
Hazardous decomposition products	:	No hazardous decomposition products are known.

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact, Ingestion

#### Potential Health Effects

Eyes	:	Dust may irritate the eyes.
Skin	:	Dust or powder may irritate the skin.
Ingestion	:	Expected to be a low ingestion hazard.
Inhalation	:	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Chronic Exposure	:	Prolonged inhalation may be harmful.

#### Experience with human exposure

Eye contact	:	Direct contact with eyes may cause temporary irritation
Skin contact	:	No adverse effects due to skin contact are expected
Ingestion	:	Expected to be a low ingestion hazard
Inhalation	:	Prolonged inhalation may be harmful

#### Toxicity

##### Product

Acute oral toxicity	:	No data available.
Acute inhalation toxicity	:	No data available.
Acute dermal toxicity	:	No data available.
Skin corrosion/irritation	:	No data available.
Serious eye damage/eye irritation	:	No data available.
Respiratory or skin sensitization	:	No data available.

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- Information on toxicological Effects : No data available.
- Carcinogenicity : In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. The product does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and Directive 67/548/EC as amended. The product contains less than 1% w/w RCS (respirable crystalline silica).
- OSHA : Not listed
- Reproductive effects : This product is not expected to cause reproductive or developmental effects.
- Germ cell mutagenicity : No data available
- Teratogenicity : No data available
- STOT - single exposure : No data available
- STOT - repeated exposure : No data available.
- Aspiration toxicity : Not an aspiration hazard.

## Section: 12. ECOLOGICAL INFORMATION

- Ecotoxicity : The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment
- Persistence and degradability** : No data is available on the degradability of this product.
- Mobility** : No data available
- Bioaccumulative potential** : No data available.
- Other information** : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## Section: 13. DISPOSAL CONSIDERATIONS

- Disposal methods : Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

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Disposal considerations : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### Section: 14. TRANSPORT INFORMATION

#### Land transport (DOT)

Not regulated as dangerous goods.

#### Air transport (IATA)

Not regulated as dangerous goods.

#### Sea transport (IMDG/IMO)

Not regulated as dangerous goods.

### Section: 15. REGULATORY INFORMATION

TSCA List : Not Regulated

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Not listed.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

Not Regulated

SARA 311/312 Hazards : No Chemicals listed.

SARA 302 : No Chemicals listed.

SARA 313 : No Chemicals listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA) : Immediate Hazard: No  
Delayed Hazard: No  
Fire Hazard: No  
Pressure Hazard: No  
Reactivity Hazard: No

#### US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D):

The following components are listed: None

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a)):

Not Listed

#### US New Jersey Worker and Community Right-to-Know Act:

Not regulated

#### US Massachusetts RTK – Substance List:

Not regulated

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**US Pennsylvania Worker and Community Right-to-Know Law:** Gypsum (calcium Sulphate) (CAS 13397-24-5)  
Not listed

**US Rhode Island RTK:**  
Not regulated.

### US. California Proposition 65

California safe drinking water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### INTERNATIONAL CHEMICAL CONTROL LAWS :

#### United States TSCA Inventory

Not on inventory.

#### Canadian Domestic Substances List (DSL)

Not on inventory.

#### Australia. Industrial Chemical (Notification and Assessment) Act

Not on inventory.

#### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

Not on inventory.

#### China Inventory of Existing Chemical Substances

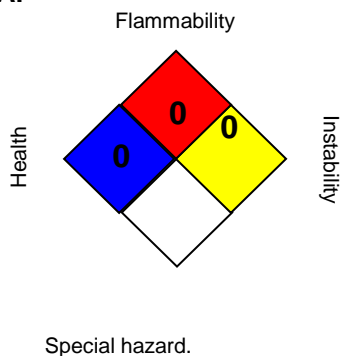
Not on inventory.

#### Korea Existing Chemicals List (ECL)

Not on inventory.

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.