



MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

71801/71801

Page 1 of 2

PRODUCT NAME: SODA ASH

Section I MANUFACTURER'S INFORMATION

MANUFACTURER'S NAME & ADDRESS:

Date Prepared: June 1, 2002

**CETCO – Drilling Products Group
1500 West Shure Drive
Arlington Heights, IL 60004**

**Telephone Number: 847-392-5800 Fax 847-577-5571
EMERGENCY CONTACT: CHEMTREC 800-424-9300
E-mail: www.cetco.com**

Section II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Particulates not otherwise classified (PNOC), total dust	15mg/m ³ (1)		10 mg/m ³ (2)	100

PRODUCT IDENTIFICATION

Chemical Name: Sodium Carbonate CAS# 497-19-8 Chemical Formula: Na₂CO₃
NFPA/HMIS: Health - 0, Fire - 0, Reactivity - 0, Specific Hazard - None
Freight Description: Oil well drilling fluid additive
Application: Calcium precipitation
DOT Class: Not a DOT/IMO Hazardous Material -- Not Regulated

Section III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: N.A. Specific Gravity (H₂O = 1): 2.509
Vapor Pressure (mm Hg): Nil Melting Point: 851°C / 1564°F
Vapor Density (AIR = 1): Not Applicable Evaporation Rate (Butyl Acetate = 1): Not Applicable
Solubility in Water: @ 20°C - 33.2 Appearance and Odor: Odorless, white colored granules

Section IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) - Noncombustible
Flammable Limits - Not Applicable LEL-Not Applicable UEL- Not Applicable
Extinguishing Media - Compatible with agents used to extinguish nearby fires.
Special Fire Fighting Procedures - Normal protective equipment, SCBA recommended
Unusual Fire / Explosion Hazards - None known

This material is not combustible. When heated to decomposition, oxides of carbon and sodium Products evolved when subjected to heat by combustion may form, producing toxic fumes.

Section V REACTIVITY DATA

Stability Stable - Conditions to Avoid - None Known
Incompatibility (Materials to Avoid) - Reacts with hydrated lime to form caustic soda. Acid
Hazardous Polymerization Will Not Occur - Conditions to Avoid - None Known

PRODUCT NAME: SODA ASH

Section VI HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes Eye? Yes

Health Hazards (Acute and Chronic): Acute effects may cause mechanical irritation to eyes and respiratory tract. Dust inhalation may lead to bronchitis, emphysema, and asthma. Dermatitis may result from short contact periods. Ingestion may cause nausea, vomiting and diarrhea. There are no reported chronic effects.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No ACGIH? No

Toxicity Data: Oral-rat LD50: 4090 g/kg; skin-rabbit: 500 mg/24H mild; eye-rabbit: 100 mg/24H moderate.

Medical Conditions Generally Aggravated by Exposure: None Known

Emergency and First Aid Procedures:

Eyes: Hold eyelids apart and flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.

Skin: Wash thoroughly with soap and water. Remove contaminated clothing if needed.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

Ingestion: Drink water to dilute. Never give anything by mouth to an unconscious person. Seek medical attention.

Other: Sensitive individuals should avoid further contact. Persons seeking medical attention should carry a copy of this MSDS with them.

Section VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Wear proper protective equipment. Contain spill and minimize dust. Re-package or recycle if possible, or place in a suitable waste container. Keep out of sewers and waterways.

Waste Disposal Method: Material is not classified as a hazardous waste by RCRA standards. Dispose of according to state and local regulations dealing with non-hazardous chemical waste.

Precautions to Be Taken in Handling and Storing: Keep dusts to a minimum. Keep container closed. Use with adequate ventilation. See MSDS for proper equipment.

Other Precautions: CAUTION! May cause eye, skin, and respiratory tract irritation. Treat as a nuisance dust.

Section VIII CONTROL MEASURES

Respiratory Protection (Specify Type): Wear a NIOSH/MSHA approved respirator when the airborne concentration is above the PEL

Ventilation	- Local Exhaust - As appropriate	Special - None
	- Mechanical (General) - As appropriate	Other - None

Protective Gloves: Chemical Resistant **Eye Protection:** Safety goggles

Other Protective Clothing or Equipment: None **Work/Hygienic Practices:** Use good housekeeping practices.

Section IX REGULATORY INFORMATION

Proper Shipping Name: **NOT A DOT/IMO HAZARDOUS MATERIAL**

ID Number: N/A

Hazard Class or Division: N/A

The information herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, CETCO cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assumes any liability, for its use.



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	HYDRAUL-EZ®
Version #	06
Revision date	20-Nov-2007
Chemical description	Powder or Granules
CAS #	Mixture
Manufacturer information	CETCO Drilling Products Group One North Arlington 1500 West Shure Drive Arlington Heights, IL 60004 US safetydata@amcol.com http://www.cetco.com/dpg/ General Information (800) 527-9948 CHEMTREC® (800) 424-9300

2. Hazards Identification

Emergency overview	Material can be slippery when wet
Potential health effects	
Routes of exposure	Inhalation.
Eyes	Dust or powder may irritate eye tissue.
Skin	Non-irritating to the skin.
Inhalation	Repeated or prolonged inhalation may cause toxic effects. For additional information on inhalation hazards, see Section 11 of this safety data sheet.
Ingestion	No significant adverse effects are expected upon ingestion of the product.
Target organs	Lungs.
Chronic effects	This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments	This product contains naturally occurring crystalline silica (not listed in Annex I of Directive 67/548/EEC) in quantities less than 6%.
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4. First Aid Measures

First aid procedures	
Eye contact	Flush eyes immediately with large amounts of water. Get medical attention if irritation develops or persists.
Skin contact	No special measures required. Get medical attention if irritation develops or persists.
Inhalation	If symptoms are experienced, remove source of contamination or move victim to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.
Ingestion	No special measures required. If ingestion of a large amount does occur, seek medical attention.
Notes to physician	Provide general supportive measures and treat symptomatically.

5. Fire Fighting Measures

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	Use any media suitable for the surrounding fires. Dry chemical, CO ₂ , water spray or regular foam.
Protection of firefighters	
Protective equipment and precautions for firefighters	Material can be slippery when wet

6. Accidental Release Measures

Personal precautions	Material can be slippery when wet. Wear a dust mask if dust is generated above exposure limits.
Environmental precautions	No special environmental precautions required.
Methods for containment	None necessary.
Methods for cleaning up	Avoid the generation of dusts during clean-up. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage	Guard against dust accumulation of this material. No special storage conditions required. No special restrictions on storage with other products.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Constituents	CAS #	Type	Value	Form
NUISANCE PARTICULATES	RR-00072-6	TWA	3 mg/m ³	
		TWA (inhalable particles, reco)	10 mg/m ³	(inhalable particles, recommended)
QUARTZ	14808-60-7	TWA	0.025 mg/m ³	(respirable fraction)

U.S. - OSHA

Constituents	CAS #	Type	Value	Form
NUISANCE PARTICULATES	RR-00072-6	TWA	5 mg/m ³	(respirable fraction)
		TWA (total dust)	15 mg/m ³	(total dust)

Exposure guidelines Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

NUISANCE PARTICULATES	RR-00072-6	10 Mg/m ³ TWA (inhalable particles, recommended); 3 mg/m ³ TWA (respirable particles, recommended)
QUARTZ	14808-60-7	0.025 Mg/m ³ TWA (respirable fraction)

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

QUARTZ	14808-60-7	lung cancer; pulmonary fibrosis
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U.S. - OSHA - Final PELs - Table Z-3 Mineral Dusts

QUARTZ	14808-60-7	((250)/(%SiO ₂ + 5) mppcf TWA (respirable)); ((10)/(%SiO ₂ + 2) mg/m ³ TWA (respirable)); ((30)/(%SiO ₂ + 2) mg/m ³ TWA (total dust))
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U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

NUISANCE PARTICULATES	RR-00072-6	15 Mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
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Engineering controls	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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.
Personal protective equipment	
Eye / face protection	Wear dust goggles.
Skin protection	No special protective equipment required.
Respiratory protection	Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.
General hygiene considerations	Eye wash fountain is recommended. Use good industrial hygiene practices in handling this material.

9. Physical & Chemical Properties

Appearance	Not available.
Color	Various.
Odor	None.
Odor threshold	Not available.
Physical state	Solid.
Form	Granular. Powder. Pellets. or Chips.
PH	7 - 9
Melting point	Not available.
Freezing point	Not available.
Boiling point	2192 °F (1200 °C) estimated
Flash point	Non-flammable
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	Non-explosive
Flammability limits in air, lower, % by volume	Non-explosive
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	0.012 estimated
Relative density	0.012 lb/cu ft estimated
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	0 % estimated
Percent volatile	0 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	None known.
Incompatible materials	None known.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

QUARTZ 14808-60-7 Oral LD50 Rat: 500 mg/kg

Chronic effects

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

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 nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

QUARTZ 14808-60-7 A2 - Suspected Human Carcinogen

IARC - Group 1 (Carcinogenic to Humans)

QUARTZ 14808-60-7 Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources)

NTP (National Toxicology Program) - Report on Carcinogens - Known Carcinogens

QUARTZ 14808-60-7 Known Carcinogen

12. Ecological Information

Ecotoxicity

This material is not expected to be harmful to aquatic life.

Environmental effects

Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

Persistence and degradability

Not available.

13. Disposal Considerations

Disposal instructions

Dispose in accordance with all applicable regulations. Material should be recycled if possible.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - No
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

U.S. - California - Proposition 65 - Carcinogens List

QUARTZ 14808-60-7 carcinogen, initial date 10/1/88 (airborne particles of respirable size)

U.S. - New Jersey - Right to Know Hazardous Substance List

QUARTZ 14808-60-7 sn 1660

U.S. - Pennsylvania - RTK (Right to Know) List

QUARTZ 14808-60-7 Present

16. Other Information

Recommended restrictions

Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Further information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS ratings

HEALTH	* 1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA ratings

Health: 1
 Flammability: 0
 Instability: 0

Disclaimer

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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

Issue date

20-Nov-2007

This data sheet contains changes from the previous version in section(s):

Composition / Information on Ingredients: Composition comments
Regulatory Information: US federal regulations
Regulatory Information: State regulations
Other Information: Other information

Other information

CETCO is a wholly owned division/subsidiary of AMCOL International Corp.



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name INSTA-VIS™ PLUS
Revision date 07-05-2007
Chemical name Anionic polyacrylamide emulsion
CAS # Mixture
Company information CETCO
Drilling Products Group
One North Arlington
1500 West Shure Drive
Arlington Heights, IL 60004
USA
Emergency CHEMTREC (800) 424-9300
General information (800) 527-9948

2. Hazards Identification

Potential health effects

Eyes Causes eye irritation. Symptoms include itching, burning, redness and tearing.
Skin Contact may irritate or burn skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Inhalation High vapor concentrations are irritating to the eyes, nose, throat, and lungs.
Ingestion Small amounts (a tablespoonful) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Petroleum distillates, hydrotreated light	64742-47-8	20 - 40
Non-hazardous and other components below reportable levels		60 - 80

Composition comments This product contains trace levels (<0.1%) of a potential carcinogen.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists.
Skin contact Immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. Launder contaminated clothing before reuse. Get medical attention if irritation develops or persists.
Inhalation If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Ingestion Product is not considered toxic in small amounts. No need for first aid is anticipated if material is swallowed.

5. Fire Fighting Measures

Flammable properties Not a fire hazard.
Unusual fire & explosion hazards None known.
Extinguishing media
Suitable extinguishing media Dry chemical, CO2, water spray or regular foam.
Fire fighting equipment/instructions Material can be slippery when wet
Protection of firefighters
Protective equipment for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions	Material can be slippery when wet. Forms smooth, slippery surfaces on floors, posing an accident risk. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for containment	Stop leak if you can do so without risk. Dike the spilled material, where this is possible.
Methods for cleaning up	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After removal flush contaminated area thoroughly with water.

7. Handling and Storage

Handling	Forms smooth, slippery surfaces on floors, posing an accident risk.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not freeze. Keep at temperatures between 0 and 30°C.

8. Exposure Controls / Personal Protection

Engineering controls	Ensure adequate ventilation, especially in confined areas. Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.
Personal protective equipment	
Eye / face protection	Wear chemical goggles and face shield.
Skin protection	Use impervious gloves. Normal work clothing (long sleeved shirts and long pants) is recommended. Wear oil-impervious garments if contact is unavoidable.
Respiratory protection	No personal respiratory protective equipment normally required. If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.
General hygiene considerations	Use good industrial hygiene practices in handling this material. Wash hands before breaks and immediately after handling the product. Eye wash fountain and emergency showers are recommended.

9. Physical & Chemical Properties

Appearance	Viscous.
Color	White. Milky.
Form	Liquid.
Odor	Aliphatic.
Odor threshold	Not available
Physical state	Liquid
pH	6 - 8
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	> 212.0 °F (> 100 °C)
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	0.002 Mm Hg @ 20C
Vapor density	Not available
Specific gravity	0.021 estimated
Relative density	0.1756 estimated
Solubility (H2O)	Limited by viscosity
Octanol/H2O coeff	Not available
Auto-ignition temperature	> 392.0 °F (> 200 °C)
Decomposition temperature	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Hazardous polymerization	Will not occur.

11. Toxicological Information

Acute effects	Acute LD50: 2000 mg/kg, Rat, Oral Acute LD50: 9302 mg/kg, Rat, Dermal Acute LC50: 22 mg/l/4h, Rat, Inhalation
Skin	Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Carcinogenicity	This product contains trace levels (<0.1%) of a potential carcinogen.

12. Ecological Information

Ecotoxicity	Not readily biodegradable (40 % after 28 days). > 15 mg/l, Daphnia, 48.00 Hours, LC50 357 mg/l, Fish, 96.00 Hours, LC50
Environmental effects	Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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State regulations	WARNING: This product contains a chemical known to the State of California to cause cancer.
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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CERCLA (Superfund) reportable quantity	Acrylamide: 5000.0000
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WHMIS status	Controlled
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WHMIS classification	D1A - Immediate/Serious-VERY TOXIC
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WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Korean Inventory of Chemicals (KICS)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Further information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS ratings

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Disclaimer

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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

Issue date

07-05-2007

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name SUSPEND-IT™
Revision date 07-13-2007
CAS # 11138-66-2
Synonym(s) XANTHAN GUM
Company information CETCO
Drilling Products Group
One North Arlington
1500 West Shure Drive
Arlington Heights, IL 60004
USA

2. Hazards Identification

Emergency overview Material can be slippery when wet. Product may form explosive dust/air mixtures if high concentration of product dust is suspended in air.

OSHA regulatory status While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Potential health effects

Routes of exposure Eye contact Inhalation.

Eyes Dust or powder may irritate eye tissue.

Skin Substance may cause slight skin irritation. No components in this product are known to be absorbed through the skin.

Inhalation Inhalation of dusts may cause respiratory irritation.

Ingestion No significant adverse effects are expected upon ingestion of the product.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists.

Skin contact Wash affected area with mild soap and water. Get medical attention if irritation develops or persists.

Inhalation If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

Ingestion No special measures required

Notes to physician Provide general supportive measures and treat symptomatically.

General advice If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties This product is combustible at high temperatures.

Unusual fire & explosion hazards Dust concentrations greater than 0.03 oz/ft³ may ignite at 590° C or when exposed to ignition source.

Extinguishing media

Suitable extinguishing media Dry chemical, CO₂, water spray or regular foam.

Fire fighting equipment/instructions Material can be slippery when wet. Move containers from fire area if you can do it without risk.

Protection of firefighters

Protective equipment for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions

Material can be slippery when wet. Ensure adequate ventilation. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

Methods for containment

Stop leak if you can do so without risk.

Methods for cleaning up

Sweep up or gather material and place in appropriate container for disposal. Avoid the generation of dusts during clean-up.

7. Handling and Storage

Handling

Material can be slippery when wet. Keep formation of airborne dusts to a minimum. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed. Refer to NFPA Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Guard against dust accumulation of this material. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Exposure guidelines

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended)

Canada - Alberta - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total particulate); 3 mg/m³ TWA (respirable particulate)

Canada - British Columbia - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total dust); 3 mg/m³ TWA (respirable fraction)

Canada - Manitoba - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total dust containing no asbestos and <1% free silica)

Canada - Ontario - Occupational Exposure Limits - TWAEVs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWAEV (inhalable); 3 mg/m³ TWAEV (respirable)

Canada - Quebec - Occupational Exposure Limits - TWAEVs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Particulates (Inert Dust) RR-00072-6 15 Mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Engineering controls

Ensure adequate ventilation, especially in confined areas. 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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Eye / face protection

Wear safety glasses with side shields.

Respiratory protection

Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

Skin and body protection

Normal work clothing (long sleeved shirts and long pants) is recommended.

General hygiene considerations

Use good industrial hygiene practices in handling this material. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance

Powder.

Color

Off-white.

Odor

Flour-like

Odor threshold

Not available

Physical state

Solid

pH	5.5 - 8.5
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	> 199.4 °F (> 93 °C)
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Solubility (H₂O)	Soluble
Octanol/H₂O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Heat, flames and sparks. Dust cloud ignition temperature 590°C.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous polymerization	Will not occur.

11. Toxicological Information

Routes of exposure	Eye contact Inhalation.
Carcinogenicity	Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.
Mutagenicity	No data available for this product.
Teratogenicity	No data available for this product.
Further information	This product has no known adverse effect on human health.

12. Ecological Information

Ecotoxicity	This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. No data is available on the product itself.
Environmental effects	No data available for this product.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

Food and Drug Administration (FDA) Total food additive
Direct food additive
Indirect food additive**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories** Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No**Section 302 extremely hazardous substance** No**Section 311 hazardous chemical** No**CERCLA (Superfund) reportable quantity** None**WHMIS status** Non-controlled**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Korean Inventory of Chemicals (KICS)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information**Further information** This safety datasheet only contains information relating to safety and does not replace any product information or product specification.**HMIS ratings** Health: 0
Flammability: 0
Physical hazard: 0**NFPA ratings** Health: 0
Flammability: 0
Instability: 0**Disclaimer** 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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

Issue date 07-13-2007



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name REL-PAC®
Revision date 07-10-2007
Chemical name Polyanionic Cellulose
CAS # Mixture
Company information CETCO
Drilling Products Group
One North Arlington
1500 West Shure Drive
Arlington Heights, IL 60004
USA
Emergency CHEMTREC (800) 424-9300
General information (800) 527-9948

2. Hazards Identification

Emergency overview No hazards resulting from the material as supplied. Health injuries are not known or expected under normal use.
OSHA regulatory status This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Eyes Contact with eyes may cause irritation.
Skin Health injuries are not known or expected under normal use. Not expected to be a primary skin irritant.
Inhalation Health injuries are not known or expected under normal use. May cause irritation of respiratory tract.
Ingestion Health injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

4. First Aid Measures

First aid procedures
Eye contact Flush eyes with water as a precaution. Get medical attention if irritation develops or persists.
Skin contact Wash off with soap and water. Rinse with water. Get medical attention if irritation develops or persists.
Inhalation Remove to fresh air. Call a physician if symptoms develop or persist.
Ingestion Have victim rinse mouth thoroughly with water. Give several glasses of water. If ingestion of a large amount does occur, seek medical attention.
General advice If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties Not a fire hazard. Container may explode in heat of fire.
Unusual fire & explosion hazards Dusts at sufficient concentrations can form explosive mixtures with air.
Extinguishing media
Suitable extinguishing media Dry chemical, CO2, water spray or regular foam.
Protection of firefighters
Protective equipment for firefighters Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental Release Measures

Personal precautions	Ventilate closed spaces before entering. Material can be slippery when wet
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Stop leak if you can do so without risk.
Methods for cleaning up	Sweep up or gather material and place in appropriate container for disposal.

7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Use this product with adequate ventilation. Use spark-proof tools and explosion-proof equipment.
Storage	Keep the container dry. Store at room temperature in the original container.

8. Exposure Controls / Personal Protection

Exposure guidelines Contains no substances with occupational exposure limit values.

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended)

Canada - Alberta - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total particulate); 3 mg/m³ TWA (respirable particulate)

Canada - British Columbia - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total dust); 3 mg/m³ TWA (respirable fraction)

Canada - Manitoba - Occupational Exposure Limits - TWAs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWA (total dust containing no asbestos and <1% free silica)

Canada - Ontario - Occupational Exposure Limits - TWAEVs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWAEV (inhalable); 3 mg/m³ TWAEV (respirable)

Canada - Quebec - Occupational Exposure Limits - TWAEVs

Particulates (Inert Dust) RR-00072-6 10 Mg/m³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica)

U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

Particulates (Inert Dust) RR-00072-6 15 Mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Engineering controls Use local exhaust ventilation.

Personal protective equipment

Eye / face protection Not normally needed.

Skin protection Not normally needed.

Respiratory protection Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit.

General hygiene considerations Use good industrial hygiene practices in handling this material.

9. Physical & Chemical Properties

Appearance	Free flowing wettable powder.
Color	Off-white.
Form	Powder.
Odor	None.
Odor threshold	Not available
Physical state	Solid
pH	6 - 8.5 (1% solution)
Melting point	1473.8 °F (801 °C) estimated
Freezing point	Not available
Boiling point	2661.8 °F (1461 °C) estimated
Flash point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	0.0325 estimated
Relative density	0.2713 estimated

Solubility (H2O)	Soluble @ 20 C
Octanol/H2O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
VOC (Weight %)	85 % estimated
Viscosity	10 - 12 MPas (1% Solution, 25 C Brookfield LV; 30 rpm)
Bulk density	300 - 900 g/cm3

10. Chemical Stability & Reactivity Information

Conditions to avoid	Risk of dust explosion.
Incompatible materials	None known.
Hazardous decomposition products	None known.
Hazardous polymerization	Will not occur.

11. Toxicological Information

Acute effects	Acute LD50: 21000 mg/kg, Rat, Oral Acute LC50: 6824 mg/l/4h, Rat, Inhalation
Mutagenicity	Not mutagenic in AMES Test.
Teratogenicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Further information	This product has no known adverse effect on human health.

12. Ecological Information

Ecotoxicity	This material is not expected to be harmful to aquatic life. Inherently biodegradable.
Environmental effects	Ecological injuries are not known or expected under normal use.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	No
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State regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	No
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CERCLA (Superfund) reportable quantity	None
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WHMIS status Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Korean Inventory of Chemicals (KICS)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Further information This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS ratings
Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 0
Flammability: 0
Instability: 0

Disclaimer
The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use. 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.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

Issue date 07-10-2007



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name DRILL-TERGE™
Revision date 05-07-2007
CAS # Mixture
Company information CETCO
Drilling Products Group
One North Arlington
1500 West Shure Drive
Arlington Heights, IL 60004
USA
Emergency CHEMTREC (800) 424-9300
General information (800) 527-9948

2. Hazards Identification

Potential health effects

Eyes This product may cause slight irritation to the eyes.
Skin Prolonged and/or repeated skin contact may result in mild irritation or redness.
Inhalation Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Ingestion Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

4. First Aid Measures

First aid procedures

Eye contact Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.
Skin contact Immediately take off all contaminated clothing. Launder contaminated clothing before reuse. Immediately flush skin with plenty of water. Get medical attention if irritation develops or persists.
Inhalation If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If symptoms persist, get medical attention.
Ingestion If material is ingested, immediately contact a physician or poison control center.

5. Fire Fighting Measures

Flammable properties This material will not burn.
Unusual fire & explosion hazards Pressurized container may explode when exposed to heat or flame.
Extinguishing media
Suitable extinguishing media Use methods for the surrounding fire. Dry chemical, CO2, water spray or regular foam.
Fire fighting equipment/instructions Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it without risk.
Protection of firefighters
Protective equipment for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions No special environmental precautions required.
Methods for containment Stop leak if you can do so without risk.

Methods for cleaning up Flush with plenty of water. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

7. Handling and Storage

Handling Keep away from heat and flame.
Storage Keep in a cool, well-ventilated place.

8. Exposure Controls / Personal Protection

Engineering controls Good general ventilation should be sufficient to control airborne levels. Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

Personal protective equipment

Eye / face protection Wear chemical goggles.
Skin protection Wear appropriate chemical resistant gloves. The use of natural rubber gloves is recommended.
Respiratory protection Not normally needed. If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
General hygiene considerations Use good industrial hygiene practices in handling this material. Eye wash fountain is recommended.

9. Physical & Chemical Properties

Appearance Clear.
Color Blue.
Odor Slight.
Odor threshold Not available
Physical state Liquid
pH Not available
Melting point Not available
Freezing point Not available
Boiling point 190 °F (87.8 °C)
Flash point Not available
Evaporation rate Slower than ether
Flammability limits in air, lower, % by volume Not available
Flammability limits in air, upper, % by volume Not available
Vapor pressure Heavier than air
Vapor density Not available
Specific gravity 1.08
Solubility (H₂O) Complete
Octanol/H₂O coeff Not available
Auto-ignition temperature Not available
Decomposition temperature Not available

10. Chemical Stability & Reactivity Information

Chemical stability Stable at normal conditions.
Conditions to avoid Avoid temperatures above 190°F (87.8°C).
Incompatible materials Strong acids, alkalies and oxidizing agents.
Hazardous decomposition products Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.
Hazardous polymerization Will not occur.

11. Toxicological Information

Not available

12. Ecological Information

Ecotoxicity	This product is not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.
Environmental effects	Based on the physical properties of this product, significant environmental persistence and bioaccumulation would not be expected.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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CERCLA (Superfund) reportable quantity	None
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	No
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WHMIS status	Non-controlled
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Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Korean Inventory of Chemicals (KICS)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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16. Other Information

Further information	This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
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HMIS ratings	Health: 0 Flammability: 0 Physical hazard: 0
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NFPA ratings

Health: 0
Flammability: 0
Instability: 0

Disclaimer

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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

Issue date

05-07-2007

MSDS sections updated

Product and Company Identification: Alternate Trade Names



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name CLAY CUTTER™
Revision date 04-13-2007
Chemical name Formation Inhibitor
CAS # Mixture
Company information CETCO
Drilling Products Group
One North Arlington
1500 West Shure Drive
Arlington Heights, IL 60004
USA
Emergency CHEMTREC (800) 424-9300
General information (800) 527-9948

2. Hazards Identification

Emergency overview No hazards resulting from the material as supplied. Health injuries are not known or expected under normal use.
OSHA regulatory status While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Potential health effects
Eyes Contact with eyes may cause irritation.
Skin May cause skin irritation in susceptible persons.
Inhalation Health injuries are not known or expected under normal use.
Ingestion Ingestion of this product may cause nausea, vomiting and diarrhea.

3. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact Wash off with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.
Inhalation Remove to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention, if needed.
Ingestion Give victim water or milk. If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.
General advice If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties This material will not burn.
Unusual fire & explosion hazards Not a fire hazard.
Extinguishing media
Suitable extinguishing media Use any media suitable for the surrounding fires.
Fire fighting equipment/instructions Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.

Protection of firefighters

Protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus. Cool containers with flooding quantities of water until well after fire is out. Containers can build up pressure if exposed to heat (fire).

6. Accidental Release Measures

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for containment

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Methods for cleaning up

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Do not allow the spilled product to enter public drainage system or open water courses. Wear appropriate protective equipment and clothing during clean-up.

7. Handling and Storage

Handling

Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container.

8. Exposure Controls / Personal Protection

Engineering controls

Good general ventilation should be sufficient to control airborne levels. Local exhaust is suggested for use, where possible, in enclosed or confined spaces. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Personal protective equipment

Eye / face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Skin protection

Wear appropriate chemical resistant gloves. Use of an impervious apron is recommended.

Respiratory protection

None required where adequate ventilation conditions exist.

General hygiene considerations

Use good industrial hygiene practices in handling this material. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Color	Not available
Form	Liquid.
Odor threshold	Not available
Physical state	Liquid
pH	6.5 - 8.5
Melting point	Not available
Freezing point	Not available
Boiling point	210 - 215 °F (98.9 - 101.7 °C)
Flash point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not Determined
Vapor density	Not Determined
Specific gravity	1.01 - 1.03
Relative density	8.42 - 8.59 lb/gal
Solubility (H2O)	100 % Complete
Octanol/H2O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Percent volatile	50 % v/v

10. Chemical Stability & Reactivity Information

Chemical stability	No hazards to be especially mentioned. Stable at normal conditions.
Conditions to avoid	None known.
Incompatible materials	None known.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous polymerization	Will not occur.

11. Toxicological Information

Component analysis - LD50	This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.
Oral effects	Acute: Rat - LD50: > 500 mg/kg
Further information	This product has no known adverse effect on human health.

12. Ecological Information

Ecotoxicity	This material is not expected to be harmful to aquatic life. This material has a biodegradation percentage of 85.2% and is considered to have ready biodegradability. This material exceeds the OECD Guideline 301B for environmental friendliness
Environmental effects	Ecological injuries are not known or expected under normal use.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations.
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14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly Hazardous Process Safety Standard, 29 CFR 1910.119.
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CERCLA (Superfund) reportable quantity	None
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	No
WHMIS status	Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Korean Inventory of Chemicals (KICS)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

Further information This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

HMIS ratings
Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 0
Flammability: 0
Instability: 0

Disclaimer 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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier.

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MSDS sections updated Product and Company Identification: Alternate Trade Names