

MATERIAL SAFETY DATA SHEET

ULTRA SEAL® TG

Product ID: 1 Trade Name: **ULTRA SEAL® TG** Revision Date: January 01, 2006

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: ULTRA SEAL® TG Chemical Family: Cellulose
Product Use: Oil well drilling fluid additive. Lost circulation material.
Emergency Telephone (24 hr.): (888) 862-7177

Supplied by: Professional Fluid Services, LLC P.O.BOX 80293 LAFAYETTE, LOUISIANA. 70598

Telephone Number: (888) 862-7177
Contact Person: ROBERT COPELAND

Revision Number: 1

HMIS Rating Health: 1 * Flammability: 1 Physical Hazard: 0 PPE: E

HMIS Key: 4=Severe, 3=Serious, 2=Moderate, 1 =Slight, O=Minimal Hazard. *Chronic effects - See Section 11. See Section 8 for Personal Protective Equipment recommendations.

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient | CAS NO: | WT% | Ingredient Comments |
|----------------------------|-----------|--------|---------------------|
| Cellulose | 9004-34-6 | 99-100 | N/A |
| Silica, crystalline quartz | 1408-60-7 | 0.1-1 | N/A |

3. HAZARDS IDENTIFICATION

Emergency Overview: Caution! May cause eye, skin, and respiratory tract irritation. Long-term inhalation of particulates may cause lung damage. Cancer hazard. Contains crystalline silica which may cause lung cancer.

Canadian Regulations: WHMIS Class: D2A

Physical Odor: Mild (Very Faint) **Color:** Tan **State:** Powder, Dust

Potential Health Effects: Acute Effects

Eye Contact: May cause mechanical irritation
Skin Contact: May cause mechanical irritation. Long-term contact can cause skin dryness.
Inhalation: May cause mechanical irritation.
Ingestion: May cause gastric distress, nausea and vomiting if ingested.
Carcinogenicity & Chronic Effects: See Section 11 - Toxicological Information.
Routes of Exposure: Eyes. Dermal (skin) contact. Inhalation.
Target Organs: Eyes-Skin. Respiratory System.

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4. FIRST AID MEASURES

Eye Contact: Promptly wash eyes with lots of water while lifting eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Skin Contact: Wash skin thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if any discomfort continues.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Dilute with 2 - 3 glasses of water or milk, if conscious. Never give anything by mouth to an unconscious person. If signs of irritation or toxicity occur seek medical attention.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: F (C): Not applicable

Flammable Limits in Air - Lower (%): Not applicable

Flammable Limits in Air - Upper (%): Not applicable

Auto-ignition Temperature: F(C) Not applicable Flammability Class: Not applicable

Other Flammable Properties: Particulate may accumulate static electricity. Dusts at sufficient concentrations can form explosive mixtures with air.

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Protection Of Fire Fighters:

Special Fire Fighting Procedures: Do not enter fire area without proper personal protective equipment; including NIOSH/MSHA approved self-contained breathing apparatus. Evacuate area and fight fire from a safe distance. Water spray may be used to keep fire-exposed containers cool. Keep water run off out of sewers and waterways.

Hazardous Combustion Products: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment identified in Section 8.

Spill Procedures: Evacuate surrounding area, if necessary. Wet product may create a slipping hazard. Contain spilled material. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.

Environmental Precautions: Do not allow entering sewer or surface and subsurface waters. Waste must be disposed of in accordance with federal, state and local laws.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment. Avoid contact with skin and eyes. Avoid generating or breathing dust. Product is slippery if wet. Use only in a well ventilated area. Wash thoroughly after handling.

Storage: Store in dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

| Ingredient | CAS NO: | Wt. % | ACGIH TLV TWA | OSHA PEL TWA | Other | Notes |
|-----------------------------|------------|----------|------------------------|---|--|-------|
| Silica, crystalline, quartz | 14808-60-7 | 0.1 - 1 | 0.05 mg/m ³ | See Table Z-3 | 3NIOSH: 0.05 (R) mg/m ³ TW A 10H day/40H Wk) | (R) |
| Cellulose | 9004-34-6 | 99 - 100 | 10 mg/m ³ | 15 mg/m ³ None (Total); 5 mg/m ³ (Respirable) | | |

Notes:

(R) Respirable fraction (ACGIH);

Table Z-3: PEL for Mineral Dusts containing crystalline silica are 10 mg/m³/ (%SiO₂+2) for quartz and 1/2 the calculated quartz value for cristobalite and tridymite.

Engineering Controls: Use appropriate engineering controls such as, exhaust ventilation and process enclosure, to ensure air contamination and keep workers exposure below the applicable limits.

Personal Protection Equipment

Eye/Face Protection: Dust resistant safety goggles.

Skin Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Chemical resistant gloves recommended for prolonged or repeated contact. Use protective gloves made have: Neoprene. Nitrile.

Respiratory Protection: Use at least a NIOSH-approved N95 half-mask disposable or reusable particulate respirator (dusk mask). In work environments containing oil mist/aerosol, use at least NIOSH-approved P95 half-mask disposable or reusable particulate respirator. For exposure exceeding 10 x PEL use a NIOSH-approved N100 Particulate Respirator.

General Hygiene Considerations:

Work clothes should be washed separately at the end of each workday. Disposable clothing should be discarded, if contaminated with product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Tan

Odor: Mild (or faint) Physical State: Powder, dust.

pH: Not determined.

Vapor Pressure: Not applicable

Vapor Density (Air=1): Not applicable

Boiling Point: Not determined

Melting/Freezing Point: Not determined

Solubility (Water): Insoluble

Specific Gravity (H₂O = 1): 1.4 -1.65 at 68 F (20 C)

Evaporation Rate: Not applicable

Odor Threshold(s): Not determined

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10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Keep away from heat, sparks and flame.

Materials to Avoid: Oxidizers.

Hazardous Decomposition: For combustion products, see Section 5.

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGICAL DATA

Ingredient: Cellulose

CAS NO: 9004-34-6

Acute Data: Oral LD50: >5000 mg/kg (rat); Dermal LD50: >2000 LC50: >5800 m

COMPONENT TOXICOLOGICAL SUMMARY

Ingredient:

Silica, Crystalline, Quart

Crystalline silica is the most widely occurring of all minerals. The most common form of silica is sand. The International Agency for Research on Cancer (IARC) has designated crystalline silica in the form of quartz or cristobalite a Group 1 (carcinogenic to humans). This designation was based on an increased risk of lung cancer among crystalline silica exposed workers. IARC did note Silica that carcinogenicity of crystalline silica in humans was not detected in all industrial circumstances studied. Further, carcinogenicity of crystalline silica may be dependent on inherent characteristics of the crystalline silica or external factors affecting its biological activity or distribution of polymorphs. (IARC Vol. 68,1997, p. 41). The National Toxicology Program (NTP) classifies crystalline silica as "reasonably anticipated to cause cancer in humans" (6th Annual Report on Carcinogens, 1991). Long-term inhalation of crystalline silica can also result in the lung disease, silicosis. Symptoms of this disease include coughing and shortness of breath. (NJ HSFS, January 1996)

Product Toxicological Information:

Long term inhalation of particulate can cause irritation, inflammation and/or permanent injury to the lungs. Illnesses such as pneumoconiosis ("dusty lung"), pulmonary fibrosis, chronic bronchitis, emphysema and bronchial asthma may develop.

12. ECOLOGICAL INFORMATION

Component Ecotoxicity Data: No data available.

Product Ecotoxicity Data: Contact PROFESSIONAL FLUID SERVICES, LLC

Biodegradation: Not determined

Bioaccumulation: Not determined

Octanol/Water Partition: Not determined

13. DISPOSAL CONSIDERATIONS

Waste Classification: Not determined.

Waste Management: Under U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine at the time of disposal, whether the product meets RCRA criteria for the hazardous waste. This is because product uses, transformations, mixtures, processes, etc., may render the resulting materials hazardous. Empty containers retain residues. All labeled precautions must be observed.

Disposal Method: Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that the containers are empty by the RCRA criteria prior to disposal in a permitted industrial landfill.

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14. TRANSPORT INFORMATION

U.S. DOT Shipping Description: Not regulated
TDG (Canada):Shipping Description: Not regulated
Hazard Class: Not regulated.
Shipping Description: Not regulated
Shipping Name: ULTRA SEAL® TG
Packaging: 25 LB SACKS-48 SACKS PER PALLET

15. REGULATORY INFORMATION

U.S. Federal and State Regulations

SARA 311/312:

SARA 311/312 Hazard Categories: Delayed (chronic) health hazard.

| INGREDIENT | SARA313 | CERCLA RQ | SARA 302 /TPQs | CA 65 CANCER | CA 65 DEV. TOX. | CA 65 REPRO. F | CA 65 REPRO. M |
|-----------------------------|------------|------------|----------------|--|-----------------|----------------|----------------|
| Silica, crystalline, quartz | Not Listed | Not Listed | Not Listed | Carcinogen (airborne particles of respirable size); initial date 10/1/88 | Not Listed | Not Listed | Not Listed |
| Cellulose | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed | Not Listed |

State Comments: Proposition 65: This product contains chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 to cause cancer and/or reproductive toxicity. See table under U.S. Federal and State Regulations for the specific chemicals.

International Inventories

| Ingredient | CAS NO: | TSCA | DSL | NDSL | EINECS | AICS |
|-----------------------------|------------|--------|--------|------------|--------|--------|
| Silica, crystalline, quartz | 14808-60-7 | Listed | Listed | Not Listed | Listed | Listed |
| Cellulose | 9004-34-6 | Listed | Listed | Not Listed | Listed | Listed |

Inventory Comment: "Listed" indicates the component is listed or exempt from listing on the chemical inventory .

Canadian Regulations:

Controlled Products Regulations Statement: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Class: D2A

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16. OTHER INFORMATION

The following sections have been revised: N/A.

Disclaimer:

ALL THE RECOMMENDATIONS AND SUGGESTIONS HEREIN CONCERNING OUR PRODUCT ARE BASED UPON TESTS AND DATA BELIEVED TO BE RELIABLE, HOWEVER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY, AND SUITABILITY FOR HIS OWN USE OF THE PRODUCT DESCRIBED HEREIN. SINCE THE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL, NO GUARANTEE, EXPRESSED OR IMPLIED, IS MADE BY PROFESSIONAL FLUID SERVICES AS TO THE EFFECTS OF SUCH USE, THE RESULTS TO BE OBTAINED, OR THE SAFETY AND TOXICITY OF THE PRODUCT NOR DOES PROFESSIONAL FLUID SERVICE ASSUME ANY LIABILITY ARISING OUT OF USE BY OTHERS. NOR IS THE INFORMATION HEREIN TO BE CONSIDERED AS ABSOLUTELY COMPLETE SINCE ADDITIONAL INFORMATION MAY BE NECESSARY OR DESIRABLE WHEN PARTICULAR OR EXCEPTIONAL CONDITIONS OR CIRCUMSTANCES EXIST OR BECAUSE OF APPLICABLE LAWS OR GOVERNMENT REGULATION.