



MATERIAL SAFETY DATA SHEET

CERAMIFRAC PROPPANT (All Mesh Sizes)

MSDS DATE: March 1, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CERAMIFRAC PROPPANT
SYNONYMS: CERAMIC PROPPANT; SEMI-CRYSTALLINE ALUMINA SILICATE

MANUFACTURER: CERAMIFRAC PROPPANTS, LLC
ADDRESS: 212 E. 22ND STREET
CHEYENNE, WY 82001

EMERGENCY PHONE: 307-222-4392

CHEMICAL NAME: SEMI-CRYSTALLINE ALUMINA SILICATE
CHEMICAL FAMILY: ALUMINOSILICATE

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>CONCENTRATION</u>	<u>CLASSIFICATION</u>	<u>R-PHRASES</u>
CORUNDUM	1302-74-5	40-60%	NOT CLASSIFIED	NOT ASSIGNED
MULLITE	1302-93-8	35-60%	NOT CLASSIFIED	NOT ASSIGNED

SECTION 3: HAZARDS IDENTIFICATION

INHALATION: Inhalation of dusts may cause respiratory tract irritation. Repeated or prolonged inhalation of particles of respirable size may cause severe respiratory disease. This product contains few particles of respirable size. The amount of dust due to breakdown during shipment and intended use and handling is not expected to exceed applicable exposure limits.

EYE CONTACT: Airborne dust may cause irritation to eyes.

SKIN CONTACT: Prolonged contact with a skin may cause irritation.

HMIS RATING: HEALTH 1 (slight) **FLAMMABILITY** 0 (minimal) **REACTIVITY** 0 (minimal)

SPECIAL PROTECTION:
(See section 8)

SECTION 4: FIRST AID MEASURES

INHALATION: Remove affected person from source of exposure. Get medical attention if irritation occurs.

INGESTION: Seek medical attention if large quantities are ingested.

EYE CONTACT: Immediately flush eyes with large amounts of water, lifting the lower and upper lids occasionally. If irritation is present after washing, get medical attention.

SKIN CONTACT: Wash the affected area with soap and water. Get medical attention if irritation occurs.

SECTION 5: FIRE-FIGHTING MEASURES

ESTIMATED EXPLOSIVE LIMITS (% By volume in air): LEL: N/A UEL: N/A FLASH POINT: N/A

SPECIAL FIRE FIGHTING PROCEDURES: This material does not give a flash point by conventional test methods. Use



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extinguishing agent suitable for type of surrounding fire.

UNUSUAL HAZARDS: N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No special procedures are required for clean-up of spills or leaks of this material. Caution should be exercised regarding personal safety and exposure to the spilled material, the material's nature could cause reduced traction. Persons should take care so as not to slip.

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not create dust. Use personal protective equipment. Refer to section 8 for personal protective equipment.

STORAGE: Store dry in closed container to reduce dust.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

<u>Ingredients</u>	<u>OSHA PEL-TWA</u>	<u>ACGIH-TWA TLV</u>
Corundum	15 mg/m ³ (total) 5 mg/m ³ (respirable)	10 mg/m ³ (total) 3 mg/m ³ (resp)
Mullite	15 mg/m ³ (total) 5 mg/m ³ (respirable)	10 mg/m ³ (total) 3 mg/m ³ (resp)

ENGINEERING CONTROL MEASURES: Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and the potential for exposure. Use of the basic principles of industrial hygiene will enable safe handling of the material.

RESPIRATORY: An applicable NIOSH/MSHA or equivalent approved respirator should be worn where airborne exposures may exceed OSHA/ACGIH permissible air concentrations.

EYE PROTECTION: Wear safety glasses or chemical goggles to prevent eye contact. Do not wear contact lenses when working with this substance unless protected under full coverage goggles.

CLOTHING/GLOVES: Gloves are optional to reduce abrasion.

WORK HYGIENE PRACTICES: Handle in accordance with good personal hygiene and safety practices.

VENTILATION: Provide sufficient (general and/or local exhaust) ventilation to maintain exposure below permissible air concentrations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	N/A °F	SPECIFIC GRAVITY: 3.3 (H ₂ O=1)	pH: N/A
MELTING POINT:	4000 °F (estimated)	BULK DENSITY: 118 lb/cu.ft.	
VAPOR PRESSURE:	N/A mm Hg	% VOLATILE BY WEIGHT:	N/A
VAPOR DENSITY:	N/A (Air=1)	EVAPORATION RATE: N/A (Butyl Acetate=1)	
APPEARANCE/ODOR:	Odorless light brown to black spheres		
SOLUBILITY IN WATER:	Insoluble		
VOLATILE ORGANIC COMPOUNDS (VOC):	0 lbs/gal (EPA Reference Methods 24)		



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SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Minimal
STABILITY: Stable
INCOMPATIBLE MATERIALS: Chlorine Trifluoride.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS: Coughing and throat irritation are early symptoms of excessive exposure. May be irritating to the respiratory system, lungs and skin. May also cause irritation to eyes.
CHRONIC EFFECTS: Chronic exposure in excess of established human exposure levels can cause severe respiratory disease.

SECTION 12: ECOLOGICAL INFORMATION

This product poses no significant environmental contamination impact during expected use, handling, and proper disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Disposal must be at an approved waste disposal facility and in accordance with applicable federal, state and local laws and regulations. Contact the district Director of the Environmental Protection Agency and/or state regulatory agency for appropriate requirements.

SECTION 14: TRANSPORT INFORMATION

UN NO.	N/A	DOT SHIPPING DESCRIPTION :	Not Restricted
ICAO/IATA	Not Restricted	CAN:	Not Restricted
RID/ADR	Not Restricted	IMO	Not Restricted

SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA) STATUS: All chemicals in this product are listed, automatically included, or are exempt from listing on the TSCA Inventory.

SARA TITLE III: Section 302: None
Section 312: None
Section 313: None

CERCLA REPORTABLE QUANTITY: None

CLEAN AIR AMENDMENTS-HAZARDOUS AIR POLLUTANTS (HAPS): None

CALIFORNIA STATE PROPOSITION 65: N/A

SECTION 16: OTHER INFORMATION
