

LIGNITE

SECTION 1. IDENTIFICATION

Product Identifier	LIGNITE
Other Means of Identification	Brown Coal
Product Family	Dispersant
Recommended Use	Drilling Fluid Additive.
Supplier Identifier	Bri-Chem Supply Ltd., Bay 4, 5510 - 3rd Street SE, Calgary, Alberta, T2H 1J9, Bri-Chem Supply, 403-252-5904, www.brichemsupply.com
Emergency Phone No.	ChemTrec, (800) 424-9300, 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Carcinogenicity - Category 1A; Specific target organ toxicity (repeated exposure) - Category 1

Label Elements



Signal Word:

Danger

Hazard Statement(s):

May cause cancer.

Causes damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF exposed or concerned: Get medical advice or attention.

Storage:

Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Humic acids	1415-93-6	90-100	
Silica, quartz	14808-60-7	6	

Product Identifier: LIGNITE

Date of Preparation: October 02, 2015

Page 01 of 05

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. If breathing has stopped, trained personnel should begin rescue breathing. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Call a Poison Centre or doctor if you feel unwell.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Drink water to dilute and then induce vomiting.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide, foam, water.

Specific Hazards Arising from the Product

COMBUSTIBLE DUST. May explode if dust is suspended in air and ignition source is present. Granules burn similar to coal or wood.

Special Protective Equipment and Precautions for Fire-fighters

A full-body encapsulating chemical protective suit with positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Use appropriate safety equipment. Small spill: sweep up and put into approved DOT containers for disposal or re-use. Large spill: DO NOT allow to enter waterways; sweep or shovel into approved DOT containers for disposal or re-use.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid ingestion. Avoid skin and eye contact. Practice reasonable caution and personal cleanliness. It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated place. Keep container tightly closed and away from incompatible materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(silica, quartz)

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. Respirable fraction

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

Respirable quartz = 10 mg/m³ divided by the value of "%SiO₂ + 2"

Total quartz = 30 mg/m³ divided by the value of "%SiO₂ + 2"

Product Identifier: LIGNITE

Date of Preparation: October 02, 2015

Page 02 of 05

(nuisance dust)

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. 5 mg/m³ (respirable fraction) 15 mg/m³ (total dust).

Appropriate Engineering Controls

Provide mechanical ventilation to prevent dust concentrations and reduce potential exposure.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Use a NIOSH-approved dust mask.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Black - brown powder. Particle Size: Not available
Odour	Odourless
Odour Threshold	Not available
pH	4.5 (1% solution)
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	> 400 °F (open cup)
Evaporation Rate	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.6 - 1.8
Solubility	Insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)
Other Information	
Physical State	Solid
Molecular Formula	Not available
Molecular Weight	Not available
Bulk Density	Not applicable
Surface Tension	Not available
Critical Temperature	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Normally stable.

Product Identifier: LIGNITE

Date of Preparation: October 02, 2015

Page 03 of 05

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Incompatible Materials

None known.

Hazardous Decomposition Products

When burned, carbon dioxide, sodium oxide, hydrocarbons, carbon monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Contains silica dust. Excessive or prolonged inhalation of this product may cause permanent lung damage or possibly silicosis.

Skin Corrosion/Irritation

Prolonged exposure may cause irritation.

Serious Eye Damage/Irritation

Exposure may cause irritation to eyes and eyelids.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Contains small amount of crystalline silica which may cause delayed respiratory disease if inhaled over a long period of time.

Ingestion

May cause nausea.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Long-term exposure to products containing crystalline silica may cause silicosis. Avoid inhalation.

This product contains a small amount of crystalline silica which may cause respiratory disease over a prolonged period of time.

Carcinogenicity

(Naturally Occuring Crystalline Silica)

IARC: Group 1 – Carcinogenic to humans.

ACGIH®: A2 – Suspected human carcinogen.

NTP: Known human carcinogen.

No information was located for: Skin Corrosion/Irritation, Serious Eye Damage/Irritation, STOT (Specific Target Organ Toxicity) - Single Exposure, STOT (Specific Target Organ Toxicity) - Repeated Exposure, Respiratory and/or Skin Sensitization, Development of Offspring, Sexual Function and Fertility, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

No ecotoxicity or environmental fate data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with federal, provincial and local government regulations. Containers should NOT be re-used. Containers should be disposed of in accordance with government regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Product Identifier: LIGNITE

Date of Preparation: October 02, 2015

Page 04 of 05

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification



Class D2A

D2A - Very Toxic

Additional Canadian Regulatory Lists

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16. OTHER INFORMATION

SDS Prepared By Bri-Chem Supply Ltd

Phone No. (403) 252-5904

Date of Preparation October 02, 2015

Disclaimer

This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

Product Identifier: LIGNITE

Date of Preparation: October 02, 2015

Page 05 of 05