DI-CORP
DOWN TO EARTH BUSINESS

SAFETY DATA SHEET
GRAPHITE POWDER

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER:	**GRAPHITE POWDER**
OTHER MEANS OF IDENTIFICATION:	Natural Graphite
RECOMMENDED USE:	Oil well drilling fluid additive
RESTRICTIONS ON USE:	None
SUPPLIER IDENTIFIER:	**Di-Corp** **8750-53 Ave** **Edmonton, AB T6E 5G2** **780-440-4923**
EMERGENCY PHONE NUMBER:	780-440-4923

SECTION 2: HAZARD IDENTIFICATION

CLASSIFICATION:	Carcinogenicity – Category 1A STOT – RE – Category 1
LABEL SYMBOL:	
SIGNAL WORD:	DANGER
CLASSIFICATION INFORMATION:	May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated inhalation.
PRECAUTIONARY STATEMENTS:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. In case of inadequate ventilation wear respiratory protection. IF exposed or concerned: Get medical advice. Store locked up. Dispose of contents and/or container in accordance with local regulations.
OTHER HAZARDS:	If ground to submicron powder graphite can self-ignite in air.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Graphite	7782-42-5	95 – 99% w/w
Quartz; crystalline silica	14808-60-7	1 – 5% w/w

SECTION 4: FIRST AID MEASURES

SKIN CONTACT:	If irritation occurs, before breaks and when shift ends wash with soap and water. If irritation develops and persists seek medical attention.

EYE CONTACT:	Flush with gently flowing warm water until particles are removed and irritation ceases. If irritation persists seek medical attention.
INGESTION:	No first aid required for ingestion of small quantities. If large amount is ingested obtain medical attention.
INHALATION:	Move to area free from dust. If breathing difficulties continue, obtain medical attention. Inhalation may aggravate existing respiratory illness.
MOST IMPORTANT SYMPTOMS / EFFECTS:	No known acute health effects. Long-term inhalation of crystalline silica can cause silicosis, lymph node effects, kidney effects, auto-immune disease and cancer.
IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT:	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Dry chemical, water spray, foam, carbon dioxide extinguishers or smother with sand if fire is large.
UNSUITABLE EXTINGUISHING MEDIA:	None.
SPECIFIC FIRE HAZARDS:	At temperatures above 1500°C, graphite reacts with substances containing oxygen, including water and carbon dioxide. In case of intensely hot fire events, use sand to cover and isolate graphite. Very finely divided graphite powder poses a very slight risk of dust explosion hazard.
HAZARDOUS COMBUSTION PRODUCTS:	Oxides of carbon.
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS:	Self-contained breathing apparatus required for fire-fighting personnel.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIMENT AND EMERGENCY PROCEDURES

Use appropriate safety equipment. Avoid creating dust clouds. Avoid breathing dust; wear an approved respirator. Remove and thoroughly clean contaminated clothing before rewearing. Graphite is electrically conductive and any cleanup methods should avoid contacting graphite with electrical circuitry.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Vacuum up, if possible, to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material in approved containers for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid creating dust. Avoid breathing dust; wear an approved respirator. Provide sufficient exhaust ventilation in areas where dust is created. Practice reasonable caution and personal cleanliness. Graphite is is a highly lubricious material and may present a slip hazard if spilled on wet or dry pedestrian surfaces. Avoid contact between natural graphite and electrical circuitry. Launder contaminated clothing before reuse. Empty packages contain residual hazardous material and should be handled as if full.

CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in cool, dry area away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:	Graphite: OSHA TWA = 2.5 mg/m^3 (resp) Quartz; crystalline silica: ACGIH TWA = 0.025 mg/m^3
ENGINEERING CONTROLS:	Maintain adequate engineering controls and/or ventilation to keep hazardous ingredient(s) below statutory limits.
	PERSONAL PROTECTIVE MEASURES
RESPIRATORY PROTECTION:	NIOSH approved dust masks or respirators for silica bearing dust.
PROTECTIVE GLOVES:	Personal preference.
EYE PROTECTION:	Safety glasses with side shields recommended.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Ensure eyewash station and emergency shower are available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Dark gray to black powder/granule
ODOUR:	Odourless
ODOUR THRESHOLD:	Not applicable
pH:	Not available
MELTING POINT / FREEZING POINT:	Not applicable
BOILING POINT / RANGE:	Not applicable
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not applicable
FLAMMABILITY:	Not available
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not applicable
VAPOUR DENSITY:	Not applicable
RELATIVE DENSITY:	2.26
SOLUBILITY:	Insoluble in water
PARTION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	>500°C
DECOMPOSITION TEMPERATURE:	Oxidizes above 450°C
VISCOSITY:	Not available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	No known dangerous reactions under normal conditions of use.
CHEMICAL STABILITY:	Stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS:	None known.
CONDITIONS TO AVOID:	Avoid creating dust clouds in the presence of heat, flames and ignition sources. Graphite will begin to oxidize at temperatures above 450°C.
INCOMPATIBLE MATERIALS:	Oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

COMPONENT	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
Graphite	>2000 mg/kg (rat)	Not available	>2000 mg/m^3 (rat)
Quartz; crystalline silica	Not available	Not available	Not available

SKIN CONTACT:	No effects expected.
EYE CONTACT:	May cause mechanical irritation.
INGESTION:	Low oral toxicity. No effects expected.
INHALATION:	May cause irritation of the upper respiratory tract. This product contains crystalline silica. Breathing silica containing dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Chronic inhalation may cause silicosis, a progressive, disabling and sometimes fatal lung disease. Chronic inhalation exposure to crystalline silica quartz has been observed to cause lymph node effects, kidney effects and auto-immune disease.
CARCINOGENICITY:	Crystalline silica, when inhaled from occupational sources, is considered as a human carcinogen by IARC (Class 1) and by NTP. ACGIH classifies crystalline silica, quartz, as a suspected human carcinogen (A2).
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	No information available.
MUTAGENICITY:	Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.
CHRONIC TOXICITY:	Prolonged inhalation of respirable crystalline silica may cause lung disease, silicosis, lung cancer and other effects.
TARGET ORGAN EFFECTS:	Respiratory system (lungs).

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	No data available.
PERSISTENCE AND DEGRADABILITY:	Not applicable to inorganic substances.
BIOACCUMULATIVE POTENTIAL:	No data available.
MOBILITY IN SOIL:	No data available.
OTHER ADVERSE EFFECTS:	No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. May be disposed of as an inert solid in a sanitary landfill in some locations: Check with local operator. Empty packages should be taken for local recycling, recover or waste disposal: Check with local waste operator.

SECTION 14: TRANSPORTATION INFORMATION

UN NUMBER:	Not applicable
PROPER SHIPPING NAME:	Not applicable
CLASS:	Not applicable
PACKING GROUP:	Not applicable
IMDG HAZARDS:	Not applicable
BULK TRANSPORT:	Not applicable

SPECIAL PRECAUTIONS:	Not applicable

SECTION 15: REGULATORY INFORMATION

DSL:	All ingredients are on the DSL.
WHMIS CLASS:	D2A
TSCA:	All components are listed on the inventory or are exempt.

SECTION 16: OTHER INFORMATION

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