

# MATERIAL SAFETY DATA SHEET

## SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **May 26, 2011**  
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PRODUCT NAME: **Sand (Silicon Dioxide)**  
**Target Silica Sand**  
**Lane Mountain & Silica Sand 50/100**  
**Sil Filter Sand 10/20**  
**20-40 Silica Sand**  
**10-20 Silica Sand**  
**4-8 Enviro Gravel Sand**  
**50-80 Silica Sand**

PRODUCT USE: Inorganic filler; abrasive; cement additive  
CHEMICAL FAMILY: Inorganic silica compound CAS #: 14808-60-7

## WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: D2A  
WORKPLACE HAZARD: Potential carcinogen; chronic inhalation hazard; contains free silica

## TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not regulated under TDG  
TDG CLASSIFICATION: Not applicable  
UN NUMBER (PIN): Not applicable  
PACKING GROUP: Not applicable

## SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>% (w/w)</u>	<u>CAS NUMBER</u>	<u>LD<sub>50</sub>Oral-Rat</u>	<u>LC<sub>50</sub>Inhal-Rat</u>	<u>ACGIH-TLV</u>
Quartz, silica	90-100	14808-60-7	Not available	Not available	0.025 mg/m <sup>3</sup> respirable fraction

## SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [ ] EYE CONTACT [ ] SKIN [XX] INHALATION [ ] INGESTION  
EYE CONTACT: Mechanical irritant.

SKIN CONTACT:	Possible drying resulting in dermatitis.
INGESTION:	No adverse effects expected.
INHALATION:	Inhalation may cause irritation of the nose, throat and respiratory passages. Long-term 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 in the form of quartz or cristobalite from occupational sources is carcinogenic to humans. The International Agency for Research on Cancer (IARC) has concluded that this chemical is carcinogenic to humans (Group 1). The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as a suspected human carcinogen (A2). The US National Toxicology Program (NTP) has listed this chemical as a known human carcinogen.
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	No information available.
MUTAGENICITY:	Crystalline silica has been shown to cause mutagenic effects in human cells in-vitro.
SYNERGISTIC PRODUCTS:	Simultaneous exposure to known carcinogens, for example, benzo(a)pyrene, can increase the carcinogenicity of crystalline silica.

#### SECTION IV: FIRST AID MEASURES

SKIN CONTACT:	If irritation occurs or when shift ends, wash with soap and water until clean.
EYE CONTACT:	Flush with water until irritation ceases. If irritation persists, contact a physician.
INGESTION:	If large amounts ingested, get immediate medical attention.
INHALATION:	Move to area free from dust. If symptoms or irritation persist contact physician. Inhalation may aggravate existing respiratory illness.

#### SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	White to yellow crystals or dust; no odour
SPECIFIC GRAVITY:	2.65
BOILING POINT (°C):	2230
MELTING POINT (°C):	1750 (Freezing Point)
SOLUBILITY IN WATER:	Insoluble                      pH: Not applicable
PERCENT VOLATILE BY VOLUME:	Not applicable
EVAPORATION RATE:	Not applicable
VAPOUR PRESSURE (mmHg):	Not applicable
VAPOUR DENSITY (air = 1):	Not applicable

BULK DENSITY: 1474-1522 kg/m<sup>3</sup>

### SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not flammable  
FLAMMABLE LIMITS: Not applicable  
EXTINGUISHING MEDIA: Use media suitable for surrounding materials and packaging.  
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus required for fire fighting personnel.  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

### SECTION VII: REACTIVITY DATA

STABILITY: STABLE [XX] UNSTABLE [ ]  
INCOMPATIBILITY: None. Soluble in hydrofluoric acid.  
(CONDITIONS TO AVOID):  
CONDITIONS OF REACTIVITY: Not applicable  
HAZARDOUS DECOMPOSITION PRODUCTS: None.  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR [XX] MAY OCCUR [ ]

### SECTION VIII: PREVENTATIVE MEASURES

#### SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved dust masks or respirators for silica bearing dust.  
VENTILATION: Use local exhaust ventilation, process enclosure or other engineering controls to maintain PEL's/TLV's  
PROTECTIVE GLOVES: Abrasion resistant gloves recommended.  
EYE PROTECTION: Safety glasses or goggles recommended.  
OTHER PROTECTIVE EQUIPMENT (Specify): Ensure eyewash station and emergency shower are available.

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Use NIOSH/MSHA respirators approved for silica bearing dust. Practice reasonable caution and personal cleanliness. Avoid eye contact. Store in a cool dry area. Avoid dust generation during use.

**STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED**

Avoid breathing dust; wear an approved respirator. Vacuum up, if possible, to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material in approved containers for disposal.

**WASTE DISPOSAL METHOD**

Dispose/landfill 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.

**SECTION IX: PREPARATION**

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH,  
BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

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BY: Product safety committee  
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**Diversity Technologies Corp. is the parent company of  
Canamara-United Supply, Hollimex Products, The Drilling Depot and  
Westcoast Drilling Supplies.**