

# MATERIAL SAFETY DATA SHEET

## SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **January 16, 2007**  
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PRODUCT NAME: **Humalite (Black Earth Powder)**

PRODUCT USE: Oil well drilling fluid & cement additive  
CHEMICAL FAMILY: Natural mineral; leonardite CAS # 1415-93-6

## WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not a controlled product under WHMIS  
WORKPLACE HAZARD: Treat as a nuisance dust; contains < 0.1% 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>
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Contains no WHMIS controlled ingredients

## SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [ ] EYE CONTACT [ ] SKIN [XX] INHALATION [ ] INGESTION  
EYE CONTACT: Particles may cause mechanical irritation.  
SKIN CONTACT: Prolonged or repeated contact may irritate skin in some individuals.  
INGESTION: No toxic effects expected.  
INHALATION: Inhalation may cause irritation of the nose, throat and respiratory passages. Long-term inhalation of coal dust may cause silicosis, a progressive, disabling and sometimes fatal lung disease, and/or coal miner's pneumoconiosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

CARCINOGENICITY: No information available.  
 TERATOGENICITY: No information available.  
 REPRODUCTIVE TOXICITY: No information available.  
 MUTAGENICITY: No information available.  
 SYNERGISTIC PRODUCTS: No information available.

#### SECTION IV: FIRST AID MEASURES

SKIN CONTACT: If irritation occurs, or at end of shift, wash with soap and water until clean. If irritation persists, obtain medical attention.  
 EYE CONTACT: Flush eyes with gently flowing warm water until particles are removed. If irritation persists, obtain medical attention.  
 INGESTION: Rinse mouth and give 1 to 2 glasses of water to drink. If large amounts are swallowed, or symptoms develop, obtain medical attention. Never give anything by mouth unless victim is fully unconscious.  
 INHALATION: Move to fresh air. Give oxygen or give artificial respiration if required. If breathing difficulties or distress continues obtain medical attention.

#### SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	Dark brown to black powder; no odour	
SPECIFIC GRAVITY:	1.35	
BOILING POINT (°C):	Not applicable (does not form liquid)	
MELTING POINT (°C):	Not applicable (does not form liquid)	
SOLUBILITY IN WATER:	Negligible	pH: 3.2 – 4.0
PERCENT VOLATILE BY VOLUME:	0% (non-water)	
EVAPORATION RATE:	Not applicable	
VAPOUR PRESSURE (mmHg):	Negligible	
VAPOUR DENSITY (air = 1):	Not applicable	
BULK DENSITY:	Not available	

#### SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not applicable  
 FLAMMABLE LIMITS: Not applicable  
 EXTINGUISHING MEDIA: CLASS A is most effective.  
 SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus required for fire fighting personnel. Move containers from fire area if possible.

**UNUSUAL FIRE AND  
EXPLOSION HAZARDS:**

Fine coal particles dispersed in air represent a potentially explosive mixture. Minimum explosive concentration = 120 mg/m<sup>3</sup>. This product is susceptible to spontaneous heating, which if uncontrolled could lead to combustion.

**SECTION VII: REACTIVITY DATA**

<b>STABILITY:</b>	<b>STABLE [XX]</b>	<b>UNSTABLE [ ]</b>
<b>INCOMPATIBILITY (CONDITIONS TO AVOID):</b>	Avoid contact with strong oxidizers, heat and ignition sources.	
<b>CONDITIONS OF REACTIVITY:</b>	This product is reactive only at elevated temperatures.	
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Gaseous oxides of carbon, sulphur and nitrogen. Coal tar products are considered to be human carcinogens (IAR and NTP).	
<b>HAZARDOUS POLYMERIZATION:</b>	<b>WILL NOT OCCUR [XX]</b>	<b>MAY OCCUR [ ]</b>

**SECTION VIII: PREVENTATIVE MEASURES****SPECIAL PROTECTION INFORMATION**

<b>RESPIRATORY PROTECTION:</b>	NIOSH approved dust mask recommended. Use approved respirator with dust/mist cartridges if TLV is exceeded. ACGIH TWA = 2 mg/m <sup>3</sup> for respirable dust.
<b>VENTILATION:</b>	Use local exhaust ventilation, process enclosure or other engineering control to maintain level of airborne dust below TLV.
<b>PROTECTIVE GLOVES:</b>	Not required, personal preference.
<b>EYE PROTECTION:</b>	Safety glasses with side-shields or goggles are recommended.
<b>OTHER PROTECTIVE EQUIPMENT (Specify):</b>	As appropriate to prevent contact with body. Ensure eyewash station and emergency shower are available.

### **PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Do not breathe dust. Use normal precautions against bag breakage or spills of bulk material. Avoid creation of respirable dust. Use good housekeeping in storage and use areas to prevent accumulation of dust in work areas. Use adequate ventilation and dust collection. Maintain and use proper, clean respiratory equipment. Launder clothing that has become dusty. Empty containers retain product residue and must be handled in accordance with the provision of the MSDS. Store in a cool, dry area. Avoid contact with heat sources, open flames or other ignition sources. Spontaneous heating can result from exposure or product surface to air and by reabsorption of moisture lost during processing. The internal temperature of stockpiles or other bulk storage units should be continuously monitored. An enclosed space may become deficient in oxygen available for breathing.

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

Use appropriate safety equipment. Eliminate ignition sources. Avoid creating dust clouds. Vacuum if possible to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material for disposal in an approved container for disposal. Wash spill area with water.

### **WASTE DISPOSAL METHOD**

Dispose 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. Empty packaging, must be disposed of, or recycled, in accordance with local regulations.

### **SECTION IX: PREPARATION**

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

DATE ISSUED: **January 16, 2007**

BY: **Product safety committee**

SUPERSEDES: **January 27, 2004**

PHONE: **780-440-4923**

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