

SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **July 7, 2016**
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PRODUCT NAME: **Wyoming Gel**

PRODUCT USE: Oilwell drilling fluid additive.
 CHEMICAL FAMILY: Natural mineral, montmorillonite CAS #: 1302-78-9

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: D2A
 WORKPLACE HAZARD: Potential carcinogen; 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

INGREDIENT	% (w/w)	CAS NUMBER	LD ₅₀ Oral-Rat	LC ₅₀ Inhal-Rat	ACGIH-TLV
Quartz, crystalline silica	2-6	14808-60-7	Not available	Not available	0.025 mg/m ³

SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: EYE CONTACT SKIN CONTACT INHALATION INGESTION
 EYE CONTACT: Mechanical irritant.
 SKIN CONTACT: Possible drying resulting in dermatitis.
 INGESTION: No adverse 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:	Bentonite is not listed by ACGIH, IARC, NTP or OSHA. 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.
SYNERGISTIC PRODUCTS:	No information available.

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:	No first aid required; material is non-toxic.
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:	Light tan to gray powder; odourless
SPECIFIC GRAVITY:	2.45 – 2.55
BOILING POINT (°C):	Not applicable
MELTING POINT (°C):	~1450
SOLUBILITY IN WATER:	Insoluble (forms colloidal suspension) pH: 8 – 10 (5% aq. suspension)
PERCENT VOLATILE BY VOLUME:	Not applicable
EVAPORATION RATE:	Not applicable
VAPOUR PRESSURE (mmHg):	Not applicable
VAPOUR DENSITY (air = 1):	Not applicable
BULK DENSITY:	55 lb/ft ³ as product

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not applicable
FLAMMABLE LIMITS:	Not applicable
EXTINGUISHING MEDIA:	Use media suitable for packaging and surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus required for fire-fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Product becomes very slippery when wet; avoid using water as firefighting agent.
HAZARDOUS COMBUSTION PRODUCTS:	No information available.

SECTION VII: REACTIVITY DATA

STABILITY:	<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE
INCOMPATIBILITY (CONDITIONS TO AVOID):	Not known.	
CONDITIONS OF REACTIVITY:	Not known.	
HAZARDOUS DECOMPOSITION PRODUCTS:	Not known.	
HAZARDOUS POLYMERIZATION:	<input checked="" type="checkbox"/> WILL NOT OCCUR	<input type="checkbox"/> MAY OCCUR

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

RESPIRATORY PROTECTION:	Use NIOSH/MESA approved respirators for silica bearing dust if airborne concentration exceeds TLV.
VENTILATION:	Use local exhaust ventilation, process enclosure or other engineering to maintain PEL's/TLV's.
PROTECTIVE GLOVES:	Generally not necessary; personal preference.
EYE PROTECTION:	Suggest goggles or safety glasses with side-shields.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Ensure eye-wash station and emergency shower are available.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid creating dust. Avoid breathing dust; wear an approved respirator. Practice reasonable caution and personal cleanliness. Remove and thoroughly clean contaminated clothing before rewearing. Avoid eye contact. Store in cool, dry area. Empty packages contain residual hazardous material; handle as if full.

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

Wear an approved respirator. Vacuum if possible to avoid generating airborne dust. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Avoid adding water; the product will become slippery when wet.

WASTE DISPOSAL METHOD

Dispose/landfill material in accordance with local, provincial and federal 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 contains herein is given in good faith, but no warranty, expressed or implied, is made.

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