

**SECTION I: IDENTIFICATION OF PRODUCT**

COMPANY: **Diversity Technologies Corp.** DATE: **January 12, 2017**  
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PRODUCT NAME: **MATRIX MUL**

PRODUCT USE: Water in oil emulsifier for oil-based drilling fluid.  
 CHEMICAL FAMILY: Mixture CAS #: Not applicable

**WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)**

WHMIS CLASSIFICATION: D2B  
 WORKPLACE HAZARD: Skin and eye irritant

**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 <sub>50</sub> Oral-Rat	LC <sub>50</sub> Inhal-Rat	ACGIH-TLV
Petroleum distillate	40 - 70	64741-44-2	Not available	Not available	10 mg/m <sup>3</sup> (oil mist)
Ethylene glycol monobutyl ether	0.1 - 1.0	111-76-2	320 mg/kg (rabbit)	450 ppm/4hr	20 ppm
Butyl carbitol	0.1 - 1.0	112-34-5	2000 mg/kg (guinea pig)	Not available	Not established

**SECTION III: HEALTH HAZARDS**

ROUTE OF ENTRY:  EYE CONTACT  SKIN CONTACT  INHALATION  INGESTION  
 EYE CONTACT: May cause irritation.  
 SKIN CONTACT: May cause irritation. Prolonged or repeated exposure may cause dermatitis. Prolonged skin contact with petroleum products is associated with skin cancer. Contains ethylene glycol monobutyl ether which can be absorbed through the skin and is considered very toxic by this route of exposure, based on animal information.

INGESTION:	May cause gastro-intestinal irritation, vomiting, and diarrhea. This product contains ethylene glycol monobutyl ether, which is considered toxic by ingestion, based on animal evidence. It can cause symptoms of CNS depression (producing symptoms such as headache, nausea, dizziness, drowsiness, and confusion and may cause loss of consciousness and possibly death) and possibly effects related to destruction of red blood cells (hemolysis).
INHALATION:	Vapours or mists may cause respiratory tract irritation. May cause headache, dizziness, loss of appetite and loss of consciousness. May affect the liver and kidneys. Aspiration of product during swallowing or vomiting may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. This product contains ethylene glycol monobutyl ether, which is considered very toxic by inhalation, based on animal information. It affects the central nervous system (CNS), producing symptoms such as headache, nausea, dizziness, drowsiness, and confusion and may cause loss of consciousness and possibly death. Animal toxicity is characterized primarily by the destruction of red blood cells (hemolysis). Research indicates that human red blood cells are much less susceptible to the hemolysis.
CHRONIC TOXICITY:	Ethylene glycol monobutyl ether has caused significant health effects in animals following long-term exposure to relatively low concentrations.
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:	Remove contaminated clothing and footwear. Immediately flush with water for at least 15 to 20 minutes. Obtain immediate medical attention.
EYE CONTACT:	Immediately flush with gently flowing warm water for 15 minutes or until irritation ceases. Hold eyelids open to ensure thorough flushing. When flushing is completed, obtain medical attention.
INGESTION:	Do not induce vomiting or give liquids unless directed to do so by medical personnel. If vomiting occurs keep head below hips to prevent aspiration of vomitus. Obtain immediate medical attention. Never give anything by mouth if patient is unconscious, rapidly losing consciousness or convulsing.
INHALATION:	Move to fresh air. Apply oxygen or artificial respiration if required. Obtain immediate medical attention.

**SECTION V: PHYSICAL DATA**

APPEARANCE AND ODOUR:	Dark amber liquid; mild hydrocarbon odour
SPECIFIC GRAVITY:	0.91
BOILING POINT (°C):	Not determined
MELTING POINT (°C):	Not determined
SOLUBILITY IN WATER:	Insoluble
PERCENT VOLATILE BY VOLUME:	Not determined
EVAPORATION RATE:	Not determined
VAPOUR PRESSURE (mmHg):	Not determined
VAPOUR DENSITY (air = 1):	Not determined
BULK DENSITY:	Not applicable
	pH: Not available

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

FLASH POINT:	>100°C (Based on ingredients)
FLAMMABLE LIMITS:	Not determined
EXTINGUISHING MEDIA:	Water fog, carbon dioxide, foam, dry chemical
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus required for fire-fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.
HAZARDOUS COMBUSTION PRODUCTS:	Oxides of nitrogen, oxides of carbon and hydrocarbons.

**SECTION VII: REACTIVITY DATA**

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

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

RESPIRATORY PROTECTION:	Wear an approved respirator with organic vapour cartridges or SCBA when handling this product.
VENTILATION:	Use in a well-ventilated area. Use local exhaust ventilation in areas without good ventilation.
PROTECTIVE GLOVES:	Use neoprene or viton gloves.
EYE PROTECTION:	Wear chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT (SPECIFY):      Ensure eyewash station and emergency shower are available.

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

Avoid contact with eyes, skin and clothing. Avoid breathing vapours. Do not ingest. Wash hands after use. Launder contaminated clothing before reuse. Store in a cool, dry well-ventilated place away from oxidizers and ignition sources. Keep container closed when not in use. Empty packages contain residual hazardous material and should be handled and stored as if full.

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

Use appropriate safety equipment. Evacuate area and eliminate ignition sources. Stop leak if possible to do so without risk. Dike to prevent spread of spilled material. Collect large spills with vacuum truck. Soak up small spills with absorbent material. Collect uncontaminated material for repackaging. Collect contaminated material and absorbents in approved containers for disposal. Keep out of sewers, storm drains, surface waters and soils.

**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. Dispose of all packaging 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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