

SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **January 21, 2016**
8750 – 53rd Ave. PHONE: **780-440-4923**
Edmonton, AB T6E 5G2 FAX: **780-469-1899**

PRODUCT NAME: **Tetrapotassium Pyrophosphate (TKPP)**

PRODUCT USE: Drilling fluid additive
 CHEMICAL FAMILY: Phosphoric acid salt CAS #: 7320-34-5

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not controlled
 WORKPLACE HAZARD: 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 ₅₀ Oral-Rat	LC ₅₀ Inhal-Rat	ACGIH-TLV
Tetrapotassium pyrophosphate	97-100	7320-34-5	>2980 mg/kg	Not available	Not established

SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: EYE CONTACT SKIN CONTACT INHALATION INGESTION
 EYE CONTACT: Causes irritation. Moderately irritating in animal tests.
 SKIN CONTACT: Practically nonirritating in animal tests. Prolonged contact may cause drying or chapping.
 INGESTION: May cause gastrointestinal irritation. Following repeated exposure (13 weeks) in food, kidney damage with changes in body weight, food consumption, clinical parameters and organ weights were reported at high dose levels in rats.
 INHALATION: Dust may be irritating to the upper respiratory tract.
 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:	Immediately flush with flowing water until material is removed. If irritation occurs, or persists, obtain medical attention.
EYE CONTACT:	Immediately flush with gently flowing warm water for at least 15 minutes, or until irritation ceases. If irritation persists, obtain medical attention when flushing is completed.
INGESTION:	Do not induce vomiting. Rinse mouth with plenty of water. Give one to two glasses of water to drink. If large quantity ingested obtain 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. If breathing difficulties, or distress, continue obtain medical attention.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	White granules or powder; odourless
SPECIFIC GRAVITY:	2.33
BOILING POINT (°C):	Not available
MELTING POINT (°C):	1100
SOLUBILITY IN WATER:	187g/100g (@ 25°C) pH: 10.2 - 10.7 (1% sol'n)
PERCENT VOLATILE BY VOLUME:	Not available
EVAPORATION RATE:	Not available
VAPOUR PRESSURE (mmHg):	0 (does not form vapour)
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:	Use media suitable for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus required for fire-fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.
HAZARDOUS COMBUSTION PRODUCTS:	Decomposes on heating emitting toxic fumes, including oxides of phosphorus.

SECTION VII: REACTIVITY DATA

STABILITY:	<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE
INCOMPATIBILITY (CONDITIONS TO AVOID):	Avoid strong acids. Incompatible with oxidizing agents and reducing agents.	
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:	NIOSH approved dust mask suggested for normal conditions of use. Approved respirator with dust cartridges required if TLV (8 hr TWA = 10 mg/m ³) is exceeded.
VENTILATION:	Use in well-ventilated area. Use local exhaust ventilation, process enclosure or other engineering controls to maintain level of airborne dust below TLV.
PROTECTIVE GLOVES:	Neoprene or rubber gloves recommended.
EYE PROTECTION:	Safety glasses with side shields or goggles recommended. It is recommended that contact lenses not be worn when handling this material.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Full body covering suggested. Ensure eye wash station and emergency shower are available.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid skin and eye contact. Wash thoroughly after handling and at end of shift. Avoid generating dust. Launder contaminated clothing before reuse. Product is hygroscopic; store in a cool dry area. Keep containers closed until used.

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

Wear appropriate safety equipment. Sweep up or vacuum to collect spilled material. Collect uncontaminated material for repackaging. Collect contaminated material in approved container for disposal. Keep out of sewers, storm drains, surface waters and soil. Clean spill area with soap and 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.

SECTION IX: PREPARATION

The information contains herein is given in good faith, but no warranty, expressed or implied, is made.

DATE ISSUED: **January 21, 2016**
SUPERSEDES: **January 18, 2013**
BY: Regulatory Affairs
PHONE: 780-440-4923