

SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **May 2, 2015**
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PRODUCT NAME: **Sulphamic Acid**

PRODUCT USE: Oilwell drilling fluid additive.
 CHEMICAL FAMILY: Amide of sulphuric acid CAS #: 5329-14-6

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: E
 WORKPLACE HAZARD: Corrosive solid

TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Sulphamic acid
 TDG CLASSIFICATION: 8
 UN NUMBER (PIN): UN2967
 PACKING GROUP: III

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	% (w/w)	CAS NUMBER	LD ₅₀ Oral-Rat	LC ₅₀ Inhal-Rat	ACGIH-TLV
Sulphamic acid	99	5329-14-6	3160 mg/kg	Not available	Not available

SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: EYE CONTACT SKIN CONTACT INHALATION INGESTION

EYE CONTACT: Moderate to severe eye irritant. Prolonged contact may cause corneal damage and possibly blindness.

SKIN CONTACT: May cause irritation. Long-term contact may cause inflammation and blistering.

INGESTION: May cause burns to mouth, throat, and esophagus.

INHALATION: Will be irritating to mucous membranes of nose, throat, and upper respiratory tract. Severe overexposure may cause lung damage, choking, unconsciousness or death.

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:	Thoroughly wash contaminated area with water while removing contaminated clothing. If irritation persists, or burns appear, obtain medical attention.
EYE CONTACT:	Flush with gently flowing warm water for 15 minutes or until irritation ceases. Hold eyelids open to ensure thorough flushing. Obtain medical attention when flushing period is complete.
INGESTION:	Do not induce vomiting. Rinse mouth with water. Give one to two glasses of water to dilute. Obtain immediate medical attention. Never give anything by mouth if patient is unconscious, rapidly losing consciousness or convulsing.
INHALATION:	Move patient to fresh air. Administer oxygen or artificial respiration as required. If breathing difficulties or distress continues obtain medical attention.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	White crystalline solid; odourless
SPECIFIC GRAVITY:	2.11
BOILING POINT (°C):	Not available
MELTING POINT (°C):	205
SOLUBILITY IN WATER:	47.1 g/L @ 80°C pH: 1.18 (1% solution)
PERCENT VOLATILE BY VOLUME:	Zero
EVAPORATION RATE:	Not available
VAPOUR PRESSURE (mmHg):	Not available
VAPOUR DENSITY (air = 1):	Not available
BULK DENSITY:	1.25 – 1.29

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not flammable
FLAMMABLE LIMITS:	Not applicable
EXTINGUISHING MEDIA:	Use media suitable for packaging and surrounding materials.
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:	Water solution of sulphamic acid is strongly acidic. This product may burn under fire conditions.
HAZARDOUS COMBUSTION PRODUCTS:	Oxides of sulphur, oxides of carbon and ammonia.

SECTION VII: REACTIVITY DATA

STABILITY:	<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizing agents and bases, nitric acid, chlorine, hypochlorous acid, cyanide or sulphur in aqueous solution.	
CONDITIONS OF REACTIVITY:	Heat.	
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:	Use an NIOSH approved dust mask.
VENTILATION:	Local exhaust ventilation recommended to prevent inhalation.
PROTECTIVE GLOVES:	Chemical resistant gloves.
EYE PROTECTION:	Chemical goggles and /or full-face shield recommended. Contact lenses should not be worn when handling corrosive materials.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Chemical resistant protective clothing must be worn at all times when handling this product. Ensure eyewash station and emergency shower available.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid ingestion. Avoid skin and eye contact. Wear suitable protection for eyes and skin when handling. Launder clothing before reuse. Thoroughly clean or discard contaminated leather articles. Store in cool, dry, well-ventilated area away from incompatible materials. When diluting, always add corrosives to water. Empty packaging contains residual hazardous material, and should be handled as if full.

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

Use appropriate safety equipment. Avoid all bodily contact with spilled material. Sweep up and shovel to collect. Collect uncontaminated material for repackaging. Collect contaminated material in an approved container for disposal. Neutralize residue with dilute solution of soda ash. Collect washings for disposal.

WASTE DISPOSAL METHOD

Dispose in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if the product meets criteria for hazardous waste at the time of disposal. This product lends itself to recovering for reclamation if spilled. Empty containers, which have not been cleaned and purged, contain residual hazardous material and must be disposed of, or recycled, according to 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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