



### SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **November 14, 2016**  
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PRODUCT NAME: **Sodium Metasilicate - Anhydrous**

PRODUCT CODE: **23425**

PRODUCT USE: Oilwell cement additive

CHEMICAL FAMILY: Silicic acid, disodium salt CAS #: 6834-92-0

### WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: E  
 WORKPLACE HAZARD: Corrosive solid

### TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: **DISODIUM TRIOXOSILICATE**  
 TDG CLASSIFICATION: 8  
 UN NUMBER (PIN): **UN3253**  
 PACKING GROUP: **III**

### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT	% (w/w)	CAS NUMBER	LD <sub>50</sub> Oral-Rat	LC <sub>50</sub> Inhal-Rat	ACGIH-TLV
Sodium metasilicate, anhydrous	100	6834-92-0	1153 mg/kg	Not available	Not established

### SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY:  EYE CONTACT  SKIN CONTACT  INHALATION  INGESTION

EYE CONTACT: Corrosive. Causes eye burns

SKIN CONTACT: Corrosive. Causes skin burns.

INGESTION: Corrosive. Causes burns to mouth, oesophagus and stomach.

INHALATION: Corrosive. Causes burns to the respiratory system. Chronic exposure may result in ulceration and/or perforation of the nasal sputum.

CARCINOGENICITY: Not listed NTP, IARC or OSHA.

TERATOGENICITY: Not teratogenic based on available information.

REPRODUCTIVE TOXICITY: Not a reproductive toxin based on available information.

MUTAGENICITY: Not mutagenic based on mutagenic bioassay of E. Coli.

SYNERGISTIC PRODUCTS: No information available.

## SECTION IV: FIRST AID MEASURES

SKIN CONTACT:	Immediately flush affected area with running water while removing contaminated clothing. Continue flushing for 15 minutes. If irritation persists or burns result, obtain medical attention.
EYE CONTACT:	Immediately flush with gently flowing warm water for minimum 30 minutes, or until irritation ceases. Hold eyelids open to ensure thorough flushing. Seek medical attention when flushing period is complete.
INGESTION:	Do not induce vomiting. 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 as required. Obtain immediate medical attention.

## SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	White beads; no odour
SPECIFIC GRAVITY:	Not available
BOILING POINT (°C):	Not available
MELTING POINT (°C):	1088
SOLUBILITY IN WATER:	Soluble                      pH:    12.0 – 12.8
PERCENT VOLATILE BY VOLUME:	Not available
EVAPORATION RATE:	Not available
VAPOUR PRESSURE (mmHg):	Not available
VAPOUR DENSITY (air = 1):	Not available
BULK DENSITY:	1.03 – 1.35 gm/cm <sup>3</sup>

## SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Not combustible
FLAMMABLE LIMITS:	Not applicable
EXTINGUISHING MEDIA:	Use media suitable for surrounding materials and packaging.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus required for fire-fighting personnel. Remove containers from fire area if possible.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.
HAZARDOUS COMBUSTION PRODUCTS:	No information available.

## SODIUM METASILICATE - ANHYDROUS

### SECTION VII: REACTIVITY DATA

STABILITY:	<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE
INCOMPATIBILITY (CONDITIONS TO AVOID):	Gels, and generates heat, when mixed with acids. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead or zinc. May react with ammonium salt solutions resulting in evolution of ammonia gas.	
CONDITIONS OF REACTIVITY:	Contact with incompatible materials and metals.	
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen when in contact with metals.	
HAZARDOUS POLYMERIZATION:	<input checked="" type="checkbox"/> WILL NOT OCCUR	<input type="checkbox"/> MAY OCCUR

### SECTION VIII: PREVENTIVE MEASURES

#### SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Suggest approved dust mask. Use approved respirator with dust cartridges if TLV is exceeded.
VENTILATION:	Use local exhaust ventilation, process enclosure or other engineering controls to maintain PEL's/TLV's
PROTECTIVE GLOVES:	Personal preference.
EYE PROTECTION:	Chemical goggles and/or face shield required. Do not wear contact lenses when handling corrosive materials.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Protective clothing as required preventing contact. Ensure eyewash station and emergency shower are available.

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

Avoid creating dust. Keep containers closed; use adequate ventilation. Do not get in eyes, on skin, or clothing. Avoid ingestion. Do not inhale dust. Wash thoroughly after handling. Wash contaminated clothing before re-use. Keep containers closed. Store in cool, dry area separate from acids, reactive metals and ammonium salts. This product can absorb water from the air. In case of high humidity or storage for extended periods of time, use plastic bags to enclose product containers to avoid caking. Packaged inventory should be used on a first in, first out basis (FIFO). Empty containers contain residual hazardous material and should be handled and stored as if full.

## SODIUM METASILICATE - ANHYDROUS

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

Use appropriate safety equipment. Avoid contact with spilled material. Sweep, scoop or vacuum to collect spilled material. Collect uncontaminated material for repackaging. Collect contaminated material in approved containers for disposal. Flush spill area thoroughly with water. Collect wash water in approved containers for disposal. Do not flush residue to the sewer. Dissolved unneutralized material has a high pH (alkaline) and will be harmful to aquatic life. Notify appropriate regulatory and emergency agencies.

### WASTE DISPOSAL METHOD

Dispose of 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 containers that have not been cleaned and purged contain residual hazardous material and 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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