

# MATERIAL SAFETY DATA SHEET

## SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **June 18, 2010**  
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PRODUCT NAME: **CALCIUM NITRATE**  
**(formerly Envirofloc)**

PRODUCT USE: Oil-well drilling fluid additive  
Oil-well cement additive

CHEMICAL FAMILY: Double salt of calcium nitrate and ammonium nitrate containing not more than 15.5% nitrogen and at least 12% water. CAS #: 6484-52-2 & 10124-37-5  
 $\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3 \cdot 10\text{H}_2\text{O}$

## WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not a controlled product under WHMIS  
WORKPLACE HAZARD: Not applicable

## TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not TDG regulated  
TDG CLASSIFICATION: Not applicable  
UN NUMBER (PIN): Not applicable  
PACKING GROUP: Not applicable

## SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>% (w/w)</u>	<u>CAS NUMBER</u>	<u>LD<sub>50</sub>Oral-Rat</u>	<u>LC<sub>50</sub>Inhal-Rat</u>	<u>ACGIH-TLV</u>
Hydrated ammonium and calcium nitrate	100	6484-52-2 & 10124-37-5	>2100 mg/kg	No information	Not listed

## SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [XX] EYE CONTACT [XX] SKIN [XX] INHALATION [XX] INGESTION  
EYE CONTACT: May cause mild eye irritation.  
SKIN CONTACT: May cause skin rash or sores particularly if skin is broken at point of contact.

INGESTION:	Swallowing small amounts may cause weakness, general depression, headache, and mental impairment. Swallowing large amounts may cause dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions and collapse.
INHALATION:	May cause mild nasal irritation.
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:	Flush with large amount of water. Remove contaminated clothing and launder before reuse. If irritation persists or other symptoms develop seek medical attention.
EYE CONTACT:	Immediately flush eyes with water for at least 15 minutes. Get medical attention.
INGESTION:	Give milk or activated charcoal to delay absorption of nitrate. Remove by gastric lavage or emesis. Obtain immediate medical attention.
INHALATION:	Move victim to fresh air. Apply oxygen or artificial respiration as required. If breathing difficulties or distress continues, obtain medical attention.

#### SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	White to off white granular solid; odourless
SPECIFIC GRAVITY:	1.12
BOILING POINT (°C):	Decomposes
MELTING POINT (°C):	116
SOLUBILITY IN WATER:	76% (w/w)                      pH: Not available
PERCENT VOLATILE BY VOLUME:	Not available
EVAPORATION RATE:	Not available
VAPOUR PRESSURE (mmHg):	Not available
VAPOUR DENSITY (air = 1):	Not available
BULK DENSITY:	68 lb/ft <sup>3</sup>

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

FLASH POINT:	Not applicable
FLAMMABLE LIMITS:	Not applicable
EXTINGUISHING MEDIA:	Use water spray to cool fire exposed surface
SPECIAL FIRE FIGHTING PROCEDURES:	Self contained breathing apparatus required for fire fighting personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	May give off noxious fumes under fire conditions.

**SECTION VII: REACTIVITY DATA**

STABILITY:	STABLE [XX]	UNSTABLE [ ]
INCOMPATIBILITY (CONDITIONS TO AVOID):	In high pH (caustic) environments this material will release ammonia. Avoid high temperatures.	
CONDITIONS OF REACTIVITY:	Not available	
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of nitrogen may be produce in fires.	
HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR [XX]	MAY OCCUR [ ]

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

RESPIRATORY PROTECTION:	In absence of adequate ventilation an approved dust mask should be worn. If TLV is exceeded wear an approved respirator with dust cartridges.
VENTILATION:	Use local exhaust ventilation, process enclosure or other engineering controls as required to maintain level of airborne dust below TLV.
PROTECTIVE GLOVES:	Suggest plastic or rubber.
EYE PROTECTION:	Suggest safety glasses with side shields. Suggest chemical goggles be worn when preparing solutions.
OTHER PROTECTIVE EQUIPMENT (Specify):	Long sleeved shirt, trousers, safety shoes. Ensure emergency eye wash station and safety shower are available.

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

Wash thoroughly after handling. Avoid contact with eyes and skin. Store in a cool, dry place away from incompatibles. Keep container tightly closed when not in use. Containers, even those that have been emptied, will retain product residue; always obey hazard warnings and handle any empty containers as if full.

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

Wear appropriate protective equipment, including rubber boots, rubber gloves, rubber apron and chemical goggles. Sweep up and place in proper containers. Collect uncontaminated material for repackaging. Collect contaminated material in approved container for disposal. Wash spill area with water. Do not allow spilled material, or wash water, to enter storm sewers or public waterways.

**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 CONTAINED HEREIN IS GIVEN IN GOOD FAITH,  
BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

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BY: Product safety committee

SUPERSEDES: June 18, 2007

PHONE: 780-440-4923

**Diversity Technologies Corp. is the parent company of  
Canamara-United Supply, Hollimex Products, The Drilling Depot and  
Westcoast Drilling Supplies.**