

MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Diversity Technologies Corp.** DATE: **June 16, 2008**
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PRODUCT NAME: **Chemcide**

PRODUCT USE: Oilwell drilling fluid additive
CHEMICAL FAMILY: N-alkyltrimethylenediamine acetates CAS#: 61791-64-8

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not WHMIS controlled.
Registered biocide under Agriculture Canada Pest Control Act.
WORKPLACE HAZARD: Skin and eye irritant; chronic toxic effects

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

<u>INGREDIENT</u>	<u>% (w/w)</u>	<u>CAS NUMBER</u>	<u>LD₅₀Oral-Rat</u>	<u>LC₅₀Inhal-Rat</u>	<u>ACGIH-TLV</u>
Ethylene glycol	15-40	107-21-1	4700 mg/kg	No information	Ceiling =50 ppm
N-coco alkyltrimethylene-diamine diacetates	10-30	61791-64-8	1.70 mL/kg	No information	No information

SECTION III: HEALTH HAZARDS

ROUTE OF ENTRY: [XX] EYE CONTACT [XX] SKIN [XX] INHALATION [XX] INGESTION
EYE CONTACT: This product is severely irritating after a 24 hour test, but only moderately irritating after a 72 hour test. The primary irritation index is 12.0/110. Prolonged contact may cause moderate to severe eye irritation.

SKIN CONTACT:	The dermal LD ₅₀ is greater than 15 mL/kg (tested on a rat). It is not considered a corrosive substance, but is moderately irritating (primary irritation index of 3.38/8.0-24 hour test on New Zealand rabbits). Prolonged contact may cause mild to moderate irritation with redness, severe swelling and blistering.
INGESTION:	May cause severe irritation or burns of mouth, throat and stomach.
INHALATION:	Because of low vapor pressure, significant amounts of airborne vapours are not expected at room temperatures. Heated vapours or mists may irritate nose, throat and lungs.
CARCINOGENICITY:	No information available.
TERATOGENICITY:	Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentration or doses.
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 wash thoroughly with soap and water. If irritation persists, or develops, obtain medical attention.
EYE CONTACT:	Immediately flush with gently flowing, warm water for at least 15 minutes. Remove contact lenses if present. Hold eyelids apart to ensure thorough flushing. Do not attempt to neutralize with chemical agents. When flushing is complete and no further irritation is observed, obtain medical attention
INGESTION:	Do not induce vomiting. If conscious, rinse out mouth and give 1 to 2 glasses of water to drink. If vomiting occurs, keep head below hips to prevent aspiration, and give more water. Obtain immediate medical attention. Never give anything by mouth unless victim is fully conscious.
INHALATION:	Move to area free from contaminants. Apply oxygen or artificial respiration if required. If breathing difficulties or distress continues, obtain medical attention.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	Cloudy yellowish-orange liquid; vinegar odour
SPECIFIC GRAVITY:	1.05
BOILING POINT (°C):	Not determined
MELTING POINT (°C):	Not determined
SOLUBILITY IN WATER:	Slightly soluble pH: 8

PERCENT VOLATILE BY VOLUME:	Not determined
EVAPORATION RATE:	<1 (butyl acetate=1)
VAPOUR PRESSURE (mmHg):	<1 @ 20°C
VAPOUR DENSITY (air = 1):	2.14 (ethylene glycol)
BULK DENSITY:	Not available

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	>100°C (PMCC)
FLAMMABLE LIMITS:	3.2 – 15.3% (ethylene glycol)
EXTINGUISHING MEDIA:	Dry chemical, foam, CO ₂ or water fog
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus required for fire fighting personnel. Move containers from fire area, or cool with water spray, if possible.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Vapour forms explosive mixture between lower and upper flammable limits. This product may burn under fire conditions.

SECTION VII: REACTIVITY DATA

STABILITY:	STABLE [XX]	UNSTABLE []
INCOMPATIBILITY (CONDITIONS TO AVOID):	Strong oxidizers, strong acids, acid chlorides, CrO ₃ and hydrogen peroxide.	
CONDITIONS OF REACTIVITY:	Not available	
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon, oxides of nitrogen, hydrogen chloride and possibly hydrogen cyanide.	
HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR [XX]	MAY OCCUR []

SECTION VIII: PREVENTATIVE MEASURES

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	Use approved respirators with organic vapour cartridges if airborne concentrations exceed TLV.
VENTILATION:	Use local exhaust ventilation, process enclosure or other engineering controls to maintain concentration of airborne contaminants below TLV.
PROTECTIVE GLOVES:	Suggest rubber or viton
EYE PROTECTION:	Suggest chemical goggles and/or full face-shield be worn. Do not wear contact lenses when handling this material.
OTHER PROTECTIVE EQUIPMENT (Specify):	Ensure eyewash station and emergency shower are available.

