



MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT

PRODUCT NAME: Calcium Nitrate/Envirofloc

PRODUCT USE: Oil Well Fluid & Cement Additive **CAS No.** 5245-12-2

CHEMICAL FAMILY: Double Salt of Calcium Nitrate and Ammonium Nitrate containing not more than 15.5% Nitrogen and at least 12% water.

FORMULA: $5\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3 \cdot 10\text{H}_2\text{O}$

WORK PLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not a controlled product under WHMIS.

WORK PLACE HAZARD: N/A

TRANSPORTATION OF DANGEROUS GOODS (TDG)

Exempt under letter from Transport Canada, File No ASD4064-4, to WGM/Hydro, also Alberta Public Safety Service 1-800/272-9600.

SECTION II: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>PERCENT</u>	<u>CAS NUMBER</u>	<u>LD₍₅₀₎ Oral-Rat</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
No Hazardous Ingredients					

SECTION III: TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY: SKIN EYE CONTACT INHALATION INGESTION

EFFECTS OF OVEREXPOSURE: In the presence of excess hydroxide concentration, this product will liberate ammonia gas. Breathing ammonia causes irritation of the moist membranes lining the nose, throat, respiratory airways and lungs. Gaseous ammonia can injure the eyes; the extent depends on the concentration and length of exposure. Low levels of ammonia for prolonged periods can produce headache, drowsiness, asthma, and skin irritation.

EYE CONTACT: Irritating, and may injure eye tissue if not removed promptly.

SKIN CONTACT: Low toxicity. Irritating.

INGESTION: Minimal toxicity.

INHALATION: Negligible hazard at normal temperatures (up to 38°C). Dust may be irritating to the lungs.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT: Flush with large amount of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse.



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- EYE CONTACT:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get medical attention.
- INGESTION:** If swallowed, induce vomiting only if victim is conscious. Get prompt medical attention. DO NOT attempt to give anything by mouth to an unconscious person.
- INHALATION:** In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

SECTION V: PHYSICAL DATA

APPEARANCE AND ODOUR:	Solid, white crystals; odourless
SPECIFIC GRAVITY:	1.12 g/cc
BOILING POINT (°C):	N/A
MELTING POINT (°C):	116°C
SOLUBILITY IN WATER:	76% (w/w)
PERCENT VOLATILE BY VOLUME:	N/A
EVAPORATION RATE:	N/A
VAPOUR PRESSURE (mm Hg):	N/A
VAPOUR DENSITY (Air = 1):	N/A

SECTION VI: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	N/A
FLAMMABLE LIMITS:	Non-Flammable solid
EXTINGUISHING MEDIA:	Use water spray to cool fire exposed surface and to protect personnel.
SPECIAL FIRE FIGHTING PROCEDURES:	Self-contained respirators required for fire fighting personnel. DO NOT attempt to smother fire. Keep fire area well ventilated and cool.
UNUSUAL FIRE/EXPLOSION HAZARDS:	Strong oxidizer. Contact with other material may cause fire.

SECTION VII: REACTIVITY DATA

STABILITY:	Stable [XX]	Unstable []
INCOMPATIBILITY (CONDITIONS TO AVOID):	Reducing agents, combustible materials such as wood, cloth, or organic materials, metals such as iron and copper and their alloys, and any other easily oxidizable materials.	



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HAZARDOUS DECOMPOSITION PRODUCTS: Will liberate toxic fumes of oxides of nitrogen.

HAZARDOUS POLYMERIZATION: Will Not Occur [XX] May Occur []

VIII: PREVENTIVE MEASURES

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH approved dust mask

VENTILATION: General mechanical; 10 changes per hour

PROTECTIVE GLOVES: Suggest plastic or rubber

EYE PROTECTION: Chemical goggles

OTHER PROTECTIVE EQUIPMENT (Specify): Long sleeved shirt, trousers, safety shoes; Make eye wash/bath available.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in a cool, dry place, away from all other chemicals and potential sources of contamination. Keep container tightly closed when not in use. Do not use pressure to empty container. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Containers, even those that have been emptied, will retain product residue and vapours. Always obey hazard warnings and handle empty containers as if they were full.

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

Wear protective equipment, including rubber boots, rubber gloves, rubber apron and chemical goggles. Keep combustibles (wood, paper, oil, etc.) away from spill.

WASTE DISPOSAL METHOD

Sweep up and dispose of in DOT approved waste containers. Comply with all applicable governmental regulations on spill reporting, and handling and disposal of waste.

SECTION IX: PREPARATION

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

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24 HOUR PHONE: 403-252-5904