

GEO DRILLING FLUIDS

MATERIAL SAFETY DATA SHEET

MSDS NUMBER : 67-8610

GEO DRILLING FLUIDS

REVISION DATE 01/19/04

1431 UNION AVE., BAKERSFIELD, CA 93301

(661) 325-5919

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## SECTION ONE - PRODUCT DESCRIPTION

**PRODUCT NAME:** N. I. S.

**CHEMICAL DESCRIPTION:** Phosphate Ester

**SYNONYMS:** Surfactant

**DOT HAZARD CLASS:** None

**DOT SHIPPING NAME::**

## SECTION TWO - HAZARDOUS INGREDIENT

CHEMICAL	CAS NUMBER	% PRESENT	TLV OR PEL
Isopropyl Alcohol	67-63-0	3-5%	TWA=400ppm, PEL=500ppm

## SECTION THREE - PHYSICAL DATA

**BOILING POINT** - Not Determined

**SPECIFIC GRAVITY (H<sub>2</sub>O=1)** - 1.036

**SOLUBILITY IN WATER (% BY VOLUME)** - Soluble

**FREEZING POINT** - Not Determined

**EVAPORATION RATE (BUTYL ACETATE = 1)** - Not Determined

**VAPOR PRESSURE @ 20°C** - Not Det.

**% VOLATILES BY VOLUME** - 85% ± 5

**VAPOR DENSITY** - Not Determined

**APPEARANCE AND ODOR** - Pale liquid with isopropyl alcohol odor

## SECTION FOUR - FIRE AND EXPLOSION HAZARD

**FLASH POINT [TEST METHOD(S)]** - 200+ (Tag Closed Cup)

**FLAMMABLE LIMITS IN AIR, % BY VOLUME** -- Not Established

**EXTINGUISHING MEDIA** - Water Fog, Dry Powder or Carbon Dioxide

**UNUSUAL FIRE AND EXPLOSION HAZARDS** - Heating may cause pressure build up - and possible rupture of the container.

**SPECIAL FIRE FIGHTING PROCEDURES** - Remove unprotected personnel from hazard area. <sup>3</sup>Wear protective clothing. Emergency personnel should be equipped with a NIOSH approved SCBA with full face piece. Cool exposed containers with water.

## SECTION FIVE - HEALTH AND FIRST AID DATA

### ACUTE EFFECTS OF OVEREXPOSURE:

**SWALLOWING** - Ingestion may cause irritation to the membranes of the mouth, throat and gastrointestinal tract. Nausea, vomiting, cramps and diarrhea may occur.

**SKIN ABSORPTION** - None currently known.

**INHALATION** - Inhalation of vapors may cause headache, nausea and other similar symptoms for the exposure to methyl alcohol. Inhalation of mists or sprays may result in non-specific irritation to the upper respiratory tract.

**SKIN CONTACT** - Contact with skin could produce severe local irritation.

**EYE CONTACT** - Vapors may be irritating to the eyes. Mists, sprays and liquid forms may cause moderate to severe irritation to the eyes.

**CHRONIC EFFECTS OF OVEREXPOSURE** - No chronic effects, either systemic or local are known.

**OTHER HEALTH HAZARDS** - None currently known.

### EMERGENCY AND FIRST AID PROCEDURES:

**SWALLOWING** - Give large amounts of warm water to induce vomiting or by putting finger down the patient's throat. Vomiting should be encouraged until vomitus is clear. Milk, eggs, or olive oil may be given after vomiting, for their soothing effect. Obtain medical attention.

**SKIN** - Remove contaminated clothing and flush skin with water. Wash with soap and water until material has been removed. Obtain medical attention if irritation persists.

**INHALATION** - Remove to fresh air. If symptoms of respiratory discomfort persist, obtain medical attention.

**EYES** - Immediately flush eyes with large amounts of water for 15 minutes. Hold eye lids apart to ensure complete flushing. Do not attempt to neutralize with chemical agents. Obtain medical attention.

**TLV OR PEL AND SOURCE** - None currently established.

### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:

**HEALTH:** (1)

**FLAMMABILITY:** (1)

**REACTIVITY:** (0)

**PERSONAL PROTECTION EQUIPMENT:** (C) Goggles, gloves, synthetic apron.

HAZARD INDEX *	
4	SEVERE HAZARD
3	SERIOUS HAZARD
2	MODERATE HAZARD
1	SLIGHT HAZARD
0	MINIMAL HAZARD

\*USED AND ASSIGNED BY GEO DRILLING TO IDENTIFY HAZARDS OF THE MATERIAL. SEE ATTACHED "MATERIAL SAFETY DATA SHEET TERMINOLOGY," PAGE B, FOR SPECIFIC INFORMATION ON EACH INDEX.

\*\*SEE ATTACHED "MATERIAL SAFETY DATA SHEET TERMINOLOGY," PAGE B

## SECTION SIX - REACTIVITY DATA

**STABILITY:** Stable

**CONDITIONS TO AVOID IF UNSTABLE:** High temperatures.

**INCOMPATIBILITY WITH OTHER MATERIALS:** N. I. S. reacts rapidly and exothermically (but not violently) with alkalies to form stable salts.

**HAZARDOUS DECOMPOSITION PRODUCTS:** May produce hazardous fumes or hazardous decomposition products.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** None currently known.

## SECTION SEVEN - SPILL AND DISPOSAL PROCEDURES

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Eliminate all ignition sources. Wear suitable protective equipment. Small Spills: Absorb liquid with absorbent material. Large Spills: Stop spill at source. Dike area of the spill to prevent spreading. Pump liquids into waste containers. Remaining liquids can be absorbed.

**WASTE DISPOSAL METHOD:** Incinerate or landfill where permitted under appropriate federal, state and local regulations.

## SECTION EIGHT - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION:** Self-contained breathing apparatus in high concentrations. Normally not required.

**VENTILATION:** General (mechanical) room ventilation is expected to be satisfactory.

**PROTECTIVE GLOVES:** Butyl or neoprene rubber.

**EYE PROTECTION:** Monogoggles.

**OTHER PROTECTIVE EQUIPMENT:** Synthetic apron, eye wash station.

## SECTION NINE - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Soiled clothing should be removed and laundered before reuse. Store below 120°F.