



MATERIAL SAFETY DATA SHEET

P.O. BOX 1603
EUNICE, LA 70535
866-457-0064 or 337-457-0064

CASING SCRUB

SECTION I - IDENTIFICATION

Manufacturer's Name: Delta Drilling Products & Services, LLC
Physical Address: 154 Eastpark Drive
Eunice, LA 70535
Emergency Number: 866-457-0064 or 337-457-0064
Trade Name: Casing Scrub

SECTION II - HAZARDOUS COMPONENTS

Component:

<u>(Cas Registry No.)</u>	<u>WT%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
EGME (111-76-2)	20-30	20 ppm	240 mg/m ³
Terpene (5989-27-5)	10-20	NE	NE
1, 2-Ethanediol (107-21-1)	10-20	100 mg/m ³ Aerosol	NE
Propylene glycol 5-butyl ether (57018-52-7)	5-10	NE	NE

SECTION III - PHYSICAL PROPERTIES

Appearance and Odor:----- Amber Liquid with mild odor.
Molecular Weight ----- N/A
Boiling Point (Degrees Fahrenheit):----- >350°F
Melting Point (Degrees Fahrenheit):-----N/A
Vapor Pressure (mm of Mercury):----- ND
Percent Volatile (By Weight):----- Ap 15
pH:----- 7.5 - 7.8
Solubility in Water:----- Soluble
Evaporation Rate (Butyl Acetate = 1):----- ND

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point (Degrees Fahrenheit; PMCC): 185°F

Fire Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers, carbon dioxide
fire extinguishers and alcohol resistant foams are preferred.

Flammable Limits (Percent By Volume):

	<u>Lower</u>	<u>Upper</u>
EGME:	1.3	10.6

Special Fire Fighting Procedures & Equipment:

Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed

containers and fire affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water streams, may spread fire.

Unusual Fire & Explosion Hazards:

Container may rupture from gas generation in a fire situation. Violent steam generation or Eruption may occur upon application of direct water stream to hot liquids.

Hazardous Combustion Products:

During a fire, smoke may contain the combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide and carbon dioxide.

SECTION V - REACTIVITY DATA

Stability: Unstable: _____

Stable: _____ X _____

Conditions to Avoid: Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatibility (Materials to Avoid): Avoid contact with strong acids, strong oxidizers and strong bases.

Hazardous Decomposition Products: Decomposition products depend on upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes, ketones, and organic acids.

Hazardous Polymerization: Will Occur: _____ Will Not

Occur: _____ X _____

SECTION VI - HEALTH HAZARD INFORMATION

Exposure From Routine Use: Material may cause severe eye injury or even corneal injury. Skin irritation can occur with brief contact.

Effects of Overexposure: Material may cause severe eye injury or even corneal injury. Skin irritation can occur with brief contact. Excessive inhalation of product could cause irritation to respiratory tract. Product is moderately toxic if ingested. Significant amounts of ingested product may produce metabolic acidosis and subsequent secondary effects such a hemolysis, central nervous system and kidney effects.

Probable Routes of Exposure: Eyes and skin

EMERGENCY AND FIRST AID PROCEDURES:

of	Eye Contact:	Remove contact lenses, if present. Immediately flush with large quantities of water for at least 15 minutes and obtain medical attention without delay, preferably from an ophthalmologist.
fifteen	Skin Contact:	Remove contaminated clothing and flush skin with plenty of water for minutes. If skin is sticky, use waterless cleaner first, if not, go ahead and wash with mild soap and water after flushing. Wash clothing before re-use. Seek medical attention if ill effects or irritation develop.
	Inhalation:	Immediately remove to fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention immediately.
have	Ingestion:	DO NOT INDUCE VOMITING. If spontaneous vomiting does occur, victim lean forward to reduce risk of aspiration. If victim is fully conscious, give one cup or 8 ounces of water. Seek medical attention immediately.

SECTION VII - TOXICITY DATA

Oral:	This product contains EGME: LD50 (Rat): 470 – 3000 mg/kg. This product contains TERPENE: LD50 (Rat): > 5000 mg/kg. This product contains 1, 2-EHTANEDIOL: LD50 (Rat): 5890 – 13400 mg/kg
Dermal:	This product contains EGME: LD50 (Rabbit): 99 – 610 mg/kg. This product contains 1,2-ETHANEDIOL: NOAEL (Rabbit): >3549 mg/kg
Inhalation:	Excessive inhalation of this product may produce symptoms of central nervous system depression, including headache, dizziness, nausea, loss of balance, drowsiness, visual disturbances, unconsciousness and even death. This product contain EGME: LC50 7hr (Rat): 700 ppm
Carcinogenicity:	None of the components in this product at concentrations grater than 0.01% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Ecological:	Specific studies on the ecotoxicity or environmental fate of this product have not been conducted. Commonly available data on certain component(s) indicate that harmful effects could result from uncontrolled releases to soil, ground water, storm waters, or air. Appropriate measures should be taken to prevent uncontrolled releases. This product contains ETHYLENE GLYCOL, MONOBUTYL ETHER: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in most sensitive species tested. LC50/96hr – rainbow trout: 1,700 mg/l. This product contains TERPENE: Terpene is a marine pollutant. This substance is immiscible with water, it will evaporate quickly and biodegrade and should not cause long-term effects.
Other Pertinent Data:	N/A

SECTION VIII - SPECIAL PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT:

Protective Gloves: Chemically resistant.

Eye Protection: Chemical goggles and/or full face shield.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use an approved (Specify Type) air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Other Protective Equipment: Selection of specific items such as boots, apron or full body suit will depend on the task.

VENTILATION:

Local Exhaust: Yes

Mechanical (General): If needed, use appropriate ventilation to maintain greater than 15 circulations per hour.

Special: N/A

SECTION IX - SPILL, LEAK AND DISPOSAL PROCEDURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Recover as much material as practical. Material can create slippery conditions. Try to work upwind of spill. Wear appropriate breathing apparatus (if applicable) and protective clothing. Soak up balance with sand, dirt, or other absorbent and haul to approved dump. Avoid direct discharge to natural waterways. Refer to all local, state, and federal regulations on spills concerning this material.

Waste Disposal Methods:

Hazard characteristic and regulatory waste stream classification can change with product use. Wastes must be tested using methods described in 40 CFR 261 to determine if it meets applicable definitions of hazardous waste.

Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition. Abide by all federal, state, and local regulations for disposal. Avoid direct discharge to natural waterways.

Clean Water Act Requirements: N/A

Resource Conservation and Recovery Act (RCRA) Requirements: Terpene is a RCRA waste, ID D001.

HAZARD RATINGS

NFPA Hazard Ratings

4 – Extreme
 3 – High
 2 – Moderate
 1 – Slight

Product ID

Fire 2
 Health 2 Reactivity 0
 Special 0

HMIS Hazard Index

Hazardous 4 – Severe
 Materials 3 – Serious
 Identification 2 – Moderate
 System 1 – Slight
 0 – Minimal

HMIS Ratings

Health 2
 Flammability 2
 Reactivity 0
 Personal Protection D

Letter Designations Of Personal Protective Equipment:

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Safety Glasses.....	A
Safety Glasses, Gloves.....	B
Safety Glasses, Gloves, Synthetic Apron.....	C
Face Shield, Gloves, Synthetic Apron.....	D
Safety Glasses, Gloves, Dust Respirator.....	E
Safety Glasses, Glove, Synthetic Apron, Dust Respirator.....	F
Safety Glasses, Gloves, Vapor Respirator.....	G
Splash Goggles, Gloves, Synthetic Apron, Vapor Respirator.....	H
Safety Glasses, Gloves, Combo Dust and Vapor Respirator.....	I
Splash Goggles, Gloves, Synthetic Apron, Combo Dust and Vapor Respirator.....	J
Airline Hood or Mask, Gloves, Full Protective suit, Boots.....	K
Situations Requiring Specialized Handling.....	X

SECTION X - REGULATORY INFORMATION

USDA:	N/A
FDA:	N/A
CPSC:	N/A
TSCA: U.S.C.	Components listed and reported with the provisions outlined in Toxic Substances Control Act, 15
DOT:	Combustible Liquid, N.O.S. (Not DOT regulated in 55 gal. Drum)
Proper Shipping Name:	Combustible Liquid, N.O.S. (Contains EGME), un1993, PG III Not Regulated in 55 Gallon Containers or Less
Hazard Class:	Combustible Liquid, N.O.S.
Label Required:	Yes
IDENTIFICATION NUMBER:	UN 1993

OTHER PERTINENT INFORMATION: N/A

EPA: SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHS): This product contains the following component regulated under Section 302 (40 CFR 355) as Extremely Hazardous Substances.

<u>Component</u>	<u>CAS No.</u>	<u>Weight Percent</u>
1,2-Ethanediol	107-21-1	10 - 20%

SARA SECTION 304 CERCLA HAZARDOUS SUBSTANCES: This product contains the following components regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification.

<u>Component</u>	<u>CAS No.</u>	<u>Weight Percent</u>	<u>Reportable Quantity</u>
1,2-Ethanediol	107-21-1	10-20%	5000 LBS

SARA SECTION 313 TOXIC CHEMICAL LIST (TCL): The following component is listed on the Section 313 Toxic Chemical List.

<u>Component</u>	<u>CAS No.</u>	<u>Weight Percent</u>
Ethylene glycol monobutyl ether	111-76-2	<20 - 30%
1,2-Ethanediol	107-21-1	10 - 20%

SECTION XI - SPECIAL PRECAUTIONS AND COMMENTS

Precautions to Be Taken In Handling And Storing: Keep product away from heat and open flames. Do not breathe vapor or fumes.

Other Precautions: Keep away from children. Product is for industrial use only.

Registrations/Certifications: N/A

Effective Date: September 16, 1991 (Updated: March 25, 2004)
(Supersedes any previous MSDS.)

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources

Believed to be reliable. It is offered for your considerations, investigation, and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable Federal, State and local laws and regulations.