

SAFETY DATA SHEET



Date Prepared : 05/18/2022

SDS No : VFD-648

VFD-648

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: VFD 648**PRODUCT DESCRIPTION:** Drilling Fluid Lubricant**CHEMICAL FAMILY:** Complex Mixture**MANUFACTURER**

Valence Drilling Fluids, LLC

PO Box 7174 Edmond, OK 73083

U.S.A.

(405) 285-6454 (8 AM - 5 PM Monday
to Friday, CST)**24 HR. EMERGENCY TELEPHONE NUMBERS**

CHEMTREC (US Transportation) : (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS**Health:**

Aspiration Hazard, Category 1

Eye Irritation, Category 2

Reproductive Toxicity, Category 2

Target Organ Toxicity (Single exposure), Respiratory tract irritation., Category 3

Target Organ Toxicity (Single exposure), Narcotic effects., Category 3

Target Organ Toxicity (Repeated exposure), Category 2

Acute Toxicity (Oral), Category 4

Skin Irritation, Category 2B

Environmental:

Acute Hazards to the Aquatic Environment, Category 2

Physical:

Flammable Liquids, Category 2

GHS LABEL

Highly Flammable Liquid and Vapour



Flame

Exclamation
markHealth
hazard**SIGNAL WORD:** DANGER**HAZARD STATEMENTS**

Highly flammable liquid and vapour.

May be harmful if swallowed and enters airways.

May cause drowsiness or dizziness.

Causes serious eye and skin irritation.

Harmful if swallowed.

PRECAUTIONARY STATEMENTS**General:**

Keep out of reach of children.

Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Ground and bond container and receiving equipment.
 Do not eat, drink or smoke when using this product.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Avoid ingestion
 Do not get in eyes, on skin, or on clothing.
 Do not spray on an open flame or other ignition source.
 Wash skin thoroughly after handling.

Response:

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 Stop leak if safe to do so.
 Gently wash with plenty of soap and water.
 Collect spillage.
 Fight fire with normal precautions from a reasonable distance.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor/ physician if you feel unwell.
 IF ON SKIN (or hair): Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Flush with lukewarm water for 15 minutes. If sticky use waterless cleaner first. Obtain emergency medical attention.
 IF SWALLOWED: Rinse mouth of victim if conscious. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
 IF exposed or concerned: Get medical advice/ attention.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
 Keep cool.

Disposal:

Dispose of contents/container in accordance with National / State / Local regulations. Handle accordingly. Use licensed transporter and disposal facility. Beware that these regulations may also apply to empty containers, liners and rinsate.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear to Slightly Hazy, Colorless to Light Yellow Liquid

IMMEDIATE CONCERNS: Avoid contact with skin, eyes or clothing.

POTENTIAL HEALTH EFFECTS

EYES: Contact may cause eye irritation.

SKIN: May cause moderate irritation and discomfort.

INGESTION: This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea.

INHALATION: The vapors or fumes of this product may cause nasal and respiratory tract irritation. Breathing this material at elevated concentrations may cause central nervous system effects including dizziness, blurred vision, fatigue, nausea, headache, loss of coordination, vomiting, confusion, or disorientation. At extreme exposures, central nervous system effects may include tremors, convulsions, seizures, loss of consciousness, coma or death.

MEDICAL CONDITIONS AGGRAVATED: This material or its emissions may aggravate pre-existing disorders.

ROUTES OF ENTRY: Ingestion, Inhalation, Skin Contact and/or Eye Contact.

TARGET ORGAN STATEMENT: May cause damage to lungs, skin and eyes.

CANCER STATEMENT: The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly, avoiding contact.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Benzene, Methyl-	70 - 80	108-88-3
Proprietary Formula	10 - 20	Trade Secret

COMMENTS: There are no additional ingredients present which, within the knowledge of the manufacturer and in applicable concentrations, are classified as hazardous to human health or the environment and hence require reporting in this section. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

EYES: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open. Check for and remove any contact lenses. Continue flushing eyes. Consult an eye specialist.

SKIN: Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

INGESTION: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. Give NOTHING by mouth. Wash out mouth with water. Do Not Swallow.

INHALATION: Remove the victim from exposure and place in fresh air immediately. Give oxygen or artificial respiration as needed by a person trained to do so. Keep victim warm and at rest. GET MEDICAL ATTENTION.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes irritation, experienced as pain, with excess blinking and tear production. There is a risk of serious eye damage.

SKIN: Irritation or redness of the skin may develop after exposure.

INGESTION: This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea.

INHALATION: Vapors or fumes of this product may cause nasal and respiratory tract irritation. Breathing this material at elevated concentrations may cause central nervous system effects including dizziness, drowsiness, blurred vision, fatigue, nausea, headache, tremors, convulsions, seizures, loss of consciousness, coma or death.

ACUTE EFFECTS: Irritating to eyes, respiratory system, skin and mucous membranes. Initial symptoms include headache and nausea.

CHRONIC EFFECTS: None Expected.

NOTES TO PHYSICIAN: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

ANTIDOTES: No known significant effects or critical hazards.

ADDITIONAL INFORMATION: Show this Safety Data Sheet to the doctor in attendance. First responders need to protect themselves. Place affected apparel in a sealed bag for subsequent decontamination.

COMMENTS: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing or wear gloves.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: GHS Category 2 Flammable Liquid

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Vapor may cause flash fire. Vapors can flow along surfaces to distant ignition source and flash back.

GENERAL HAZARD: Do not use water jet as an extinguisher - this will SPREAD the fire.

EXTINGUISHING MEDIA: Use Dry Chemical Powder, Water Spray, Fog or Foam. Do not use a high volume water jet.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete combustion may release poisonous carbon monoxide, carbon dioxide, and oxides and/or compounds of nitrogen.

EXPLOSION HAZARDS: Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source,

vapors can burn in open or explode if confined.

Flammable vapors may be heavier than air and may travel long distances along the ground before igniting or flashing back to vapor source.

FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection including respiratory protection. Do not breathe fumes. Use standard procedures for fighting chemical fires and consider the hazards of other involved materials. Heat may build pressure and rupture closed containers, spreading fire, increasing risk of burns and injuries. Use water for cooling. Move containers from fire area if you can do so without risk. Notify authorities if liquid enters sewer or public waters.

FIRE FIGHTING EQUIPMENT: Fire-fighters should wear appropriate protective equipment with approved respirators.

FIRE EXPLOSION: If drums are exposed to high temperatures, as in a fire, internal pressure may build up, leading to explosion and possible fireball as drum bursts.

SENSITIVE TO STATIC DISCHARGE: Yes

SENSITIVITY TO IMPACT: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products depend upon temperature, air supply and the presence of other materials. When heated to decomposition, this product may burn releasing combustion products which may be toxic, including carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂) and smoke.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid on paper, vermiculite, floor absorbent or other absorbent material. Transfer to secondary container to be properly disposed.

LARGE SPILL: FLAMMABLE LIQUID - Eliminate all ignition sources (flares, flames including pilot lights, electrical sprays, etc.) Stop spill at source, dike all area to prevent spreading, pump liquid to salvage tank. Residual / remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers using non-sparking tools. Notify proper authorities that a spill occurred.

ENVIRONMENTAL PRECAUTIONS

LAND SPILL: Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

AIR SPILL: Avoid the formation and spread of mists in the atmosphere.

GENERAL PROCEDURES: Notify appropriate authorities of a spill or discharge.

RELEASE NOTES: Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep low areas clear. Do not breathe vapor/mist/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed area before entering them.

SPECIAL PROTECTIVE EQUIPMENT: Use personal protective equipment including appropriate respiratory protection device from an approved respirator to a self-contained breathing apparatus that is suitable for the task.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: For transport, handling and storage, use polyethylene, plastic, lined steel or stainless steel. Protect containers from damage.

HANDLING: Do not get in eyes or on skin or clothing. Keep container closed when not in use. Use only with adequate ventilation and non-sparking tools. Do not breathe vapor or mist. Wash thoroughly after handling. Ensure all equipment is electrically grounded before beginning transfer operations.

STORAGE: Store in original, tightly closed containers in cool, dry, well ventilated area away from heat, sources of ignition and incompatible materials. Do not store in an unlabeled container. Store drums with bungs in up position. Store locked up.

ELECTROSTATIC ACCUMULATION HAZARD: Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)			
EXPOSURE LIMITS			
Chemical Name	Type	ppm	mg/m ³
	TWA	200	

Benzene, Methyl-	OSHA	STEL	300	
	ACGIH	TWA	50	188

ENGINEERING CONTROLS: Local exhaust or general room ventilation is required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Contact lenses must not be worn.

Recommend - splash goggles or face shield.

SKIN: Wear chemical resistant protective gloves. Body protection must be chosen based on level of activity and exposure.

RESPIRATORY: If exposure can exceed the Permissible Exposure Limit (PEL)/Threshold Limit Value (TLV), use only National Institute of Occupational Safety and Health (NIOSH)/Occupational Safety and Health Administration (OSHA) approved air purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

PROTECTIVE CLOTHING: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

RECOMMEND: Impervious apron or overall.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

RECOMMEND: Synthetic or rubber gloves with more than 8 hours (breakthrough time).

WORK HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuff. Avoid contact with skin and eyes. Remove contaminated clothing.

OTHER USE PRECAUTIONS: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

COMMENTS: For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury. Never siphon by mouth.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Aromatic Solvent Odor

APPEARANCE: Clear

COLOR: Light to Dark Amber

pH: 7.5 Method 5% in (10% IPA in H₂O)

FLASH POINT AND METHOD: 10°C (50°F) Pensky-Martens closed cup

AUTOIGNITION TEMPERATURE: Not Established

VAPOR PRESSURE: Not Available

BOILING POINT: 110°C (231°F)

MELTING POINT: Not Available

THERMAL DECOMPOSITION: Not Available

SOLUBILITY IN WATER: Dispersible

PARTITION COEFFICIENT: N-OCTANOL/WATER: Not Established

EVAPORATION RATE: Not Established

DENSITY: 7.787 lbs/gal at 25°C (77°F)

SPECIFIC GRAVITY: 0.934 grams/milliliter at 25°C (77°F)

VISCOSITY: Not Available

10. STABILITY AND REACTIVITY

REACTIVITY: None Expected.

HAZARDOUS POLYMERIZATION: None Expected.

STABILITY: Stable under normal conditions

CONDITIONS TO AVOID: Keep away from heat/sparks/open flames/hot surfaces. - No Smoking.

Avoid direct contact.

POSSIBILITY OF HAZARDOUS REACTIONS: No hazardous reactions if stored and handled as prescribed/indicated.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products depend upon temperature, air supply and the presence of other materials. When heated to decomposition, this product may burn releasing combustion products which may be toxic, including carbon oxides (CO, CO₂), nitrogen oxides and smoke. May release ammonia gas if involved in a fire.

INCOMPATIBLE MATERIALS: Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine and Chromic Acid.
Strong Acids, Strong Alkalines, heat, sparks, open flames and elevated temperatures.

11. TOXICOLOGICAL INFORMATION

SKIN CORROSION/IRRITATION: May be corrosive to skin and eyes.

SERIOUS EYE DAMAGE/IRRITATION: Irritating to eyes, skin and mucous membranes.

CARCINOGENICITY

Chemical Name	IARC Status
Benzene, Methyl-	3

NOTES: The toxicological and carcinogenic properties of this material have not been fully investigated. Handle accordingly.
Avoid contact.

REPRODUCTIVE TOXICITY: Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. The effects seen include decreased fetal body weight and increased skeletal variations in both inhalation and oral studies.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Not Established

BIOACCUMULATION/ACCUMULATION: Not Established

DISTRIBUTION: Not Established

AQUATIC TOXICITY (ACUTE): Toxic to aquatic life.

CHEMICAL FATE INFORMATION: Readily biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Generator of waste must determine how to properly dispose of that waste. Contact State and Federal regulators to determine whether material should be classified as a hazardous or industrial waste. **HANDLE ACCORDINGLY.** Use licensed transporter and disposal facility.

PRODUCT DISPOSAL: Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste.

EMPTY CONTAINER: Containers of this product may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid and/or solid), all hazard precautions given in the data sheet must be observed.

GENERAL COMMENTS: Responsibility for proper waste disposal rests with the generator of the waste. Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether material should be classified as a hazardous waste or industrial waste. Handle accordingly. Use licensed transporter and disposal facility. Note that these regulations may also apply to empty containers, liner and rinsate.

COMMENTS: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection, waste disposal legislation and any regional/local authority requirements.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable Liquid, n.o.s.

TECHNICAL NAME: Contains Toluene

PRIMARY HAZARD CLASS/DIVISION: Class 3 - Flammable Liquids (and Combustible Liquids [U.S.])

UN/NA NUMBER: UN 1993

PACKING GROUP: II

NAERG: 128

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 1,300 Lbs. due to content of Toluene

15. REGULATORY INFORMATION**UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Flammable
Liquid

R11: Highly flammable.

R36/37/38: Irritating to eyes, skin, and respiratory system.

S16: Keep away from sources of ignition. No smoking.

S1/2: Keep locked up and out of reach of children.

S23: Do not breathe gas/fumes/vapour/spray.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt.%	CAS
Benzene, Methyl-	70 - 80	108-88-3

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Benzene, Methyl-	70 - 80	1,000

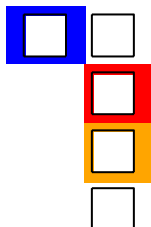
TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Benzene, Methyl-	108-88-3
Proprietary Formula	Trade Secret

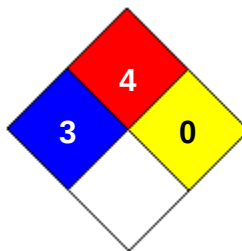
TSCA STATUS: All components are listed on the TSCA Inventory. Exempt from listing are any byproducts and/or impurities in the product.

CALIFORNIA PROPOSITION 65

Chemical Name	Wt.%	Listed
Benzene, Methyl-	70 - 80	• Cancer • Female Reproductive

16. OTHER INFORMATION**REASON FOR ISSUE:** Relabel**APPROVED BY:** Asif Babar **TITLE:** Global Prod Stw Mgr**Date Prepared:** 04/03/2017**HMIS RATING****NFPA CODES**

	3
	4
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



MANUFACTURER SUPPLEMENTAL NOTES: For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

DATA SOURCES: Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

ADDITIONAL SDS INFORMATION: This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

GENERAL STATEMENTS:

Key or Legend to abbreviations and acronyms

NTP Carcinogenicity Status: 1 - Known to be Human Carcinogens; 2 - Reasonably anticipated to be a human carcinogen

AIHA - American Industrial Hygiene Association

ACGIH - American Conference of Governmental Industrial Hygienists

CASRN - Chemical Abstract Services Registry Number

CFR - Code of Federal Regulations

D.O.T. - United States Department of Transportation

IARC - International Agency for Research on Cancer

MSHA - Mine Safety and Health Administration

OSHA - Occupational Safety and Health Administration

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

ppm - Parts per million

mg/m³ - milligram per cubic meter

kg - kilogram

L or l - Liter

n.o.s. - not otherwise specified

Lbs. - Pounds

mm²/s - millimeters squared per second

F-A, S-F - General fire schedule, Spill schedule for water-soluble marine pollutants

F-A, S-B - General fire schedule. Spill schedule Bravo for corrosive substances

F-E, S-E - Fire schedule Echo (non-water reactive flammable liquids). Spill schedule Echo (non-water-reactive flammable liquids)

PMCC - Pensky-Martens Closed Cup

LC₅₀ - Lethal Concentration 50 (concentration in water having a 50% chance of causing death to aquatic life)

EC₅₀ - Effective Concentration that causes 50% inhibition in growth or mobilization

OECD - Organisation for Economic Cooperation and Development

SOCMI - Synthetic Organic Chemical Manufacturing Industry

VOC - Volatile Organic Compound

MANUFACTURER DISCLAIMER: The conditions or methods of handling, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.