# SAFETY DATA SHEET

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

## Enhance™ Rock Drill Oil

**PRODUCT USE:** Oilfield Industry – Lubricating Oil

**COMPANY IDENTIFICATION:** Enhance™ Lubricants, LLC
1959 Bluff Road
Columbia, SC 29201
www.enhanceoil.com

**TRANSPORTATION EMERGENCY RESPONSE:** CHEMTREC – 800-424-9300

## SECTION 2: HAZARDS IDENTIFICATION

**CLASSIFICATION:**

Carcinogenicity – Category 1

**PICTOGRAMS:**

**SIGNAL WORD:**

Danger

**HAZARD STATEMENTS:**

May cause cancer.

**PRECAUTIONARY STATEMENTS – GENERAL:** Read label before use. If medical advice is needed, have product container or label at hand. Keep out of reach of children.

**PRECAUTIONARY STATEMENTS – PREVENTION:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

**PRECAUTIONARY STATEMENTS – RESPONSE:** If exposed or concerned: Get medical advice/attention.

**PRECAUTIONARY STATEMENTS – STORAGE:** Store locked up.

**PRECAUTIONARY STATEMENTS – DISPOSAL:** Dispose of contents/container to disposal recycling center. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

**HAZARDS NOT OTHERWISE CLASSIFIED:**

Not Applicable

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENTS | CAS NUMBER | AMOUNT |
|---|---|---|
| Hydrotreated (MILD) Heavy Naphthenic | 64742-52-5 | 36% - 49% |
| Hydrotreated Light Naphthenic Distillate | 64742-53-6 | 36% - 49% |
| Polypropylene | 09010-79-1 | 0.1% - 2.1% |
| Di-Tert-Butyl Polysulfide | 68937-96-2 | 0.1% - 2.1% |
| **If chemical name/CAS No is proprietary and/or weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.** | | |

## SECTION 4: FIRST AID MEASURES

**EYES:** If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.

**SKIN:** Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention. If exposed or concerned: Get medical advice/attention.

**INGESTION:** Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. If exposed or concerned: Get medical advice/attention.

**INHALATION:** Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

## SECTION 5: FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Dry chemical, foam, carbon dioxide water spray or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

**UNSUITABLE EXTINGUISHING MEDIA:** Do not use water in a jet.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide, unidentified organic and inorganic compounds.

Oxides of C, S and N. Additional byproducts include hydrogen sulfide, alkyl mercaptan and other sulfides. Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. Heavy flammable vapors may settle along ground level and low spots to create an invisible fire hazard. The vapors may extend to sources of ignition and flash back.

**FIREFIGHTING PROCEDURES:** Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

**SPECIAL PROTECTIVE ACTIONS:** Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Prevent from spreading by mistake a barrier with sand, earth or other containment material. Collect with absorbent, non-combustible material into suitable containers. Transfer to a container for disposal. Large spills, once contained, may be picked up by using explosion proof, non-sparking vacuum pumps, shovels, or buckets and disposed of in suitable containers for disposal. Local authorities should be advised if significant spillages cannot be contained.

Spill procedures (water): Remove from surface by skimming out with suitable absorbents. If large spill occurs, notify appropriate authorities.

If spilled material is cleaned up by using a regulated solvent, the resulting waste mixture may be regulated.

**RECOMMENDED EQUIPMENT:** Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**PERSONAL PRECAUTIONS:** Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**ENVIRONMENTAL PRECAUTIONS:** Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

## SECTION 7: HANDLING AND STORAGE

**GENERAL PRECAUTIONS FOR SAFE HANDLING:** Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

**VENTILATION REQUIREMENTS:** Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**STORAGE ROOM REQUIREMENTS:** Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**EYE/FACE PROTECTION:** Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapors.

**SKIN/BODY PROTECTION:** Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over- boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

| Chemical Name | OSHA TWA (ppm) | OSHA TWA (mg/m3) | OSHA STEL (ppm) | OSHA STEL (mg/m3) | OSHA-Tables Z1,2,3 | OSHA Carcinogen | OSHA Skin Designation | NIOSH TWA (ppm) | NIOSH TWA (mg/m3) |
|---|---|---|---|---|---|---|---|---|---|
| Base oil-unspecified | 500 | 2000 | - | - | 1 | - | - | - | - |
| Base oil-unspecified | 500 | 2000 | - | - | 1 | - | - | - | - |

| Chemical Name | NIOSH STEL (ppm) | NIOSH STEL (mg/m3) | NIOSH Carcinogen | ACGIH TWA (ppm) | ACGIH TWA | ACGIH STEL | ACGIH STEL | ACGIH Carcinogen | ACGIH Notations | ACGIH TLV Basis |
|---|---|---|---|---|---|---|---|---|---|---|
| Base oil-unspecified | - | - | - | - | - | - | - | - | - | - |
| Base oil-unspecified | - | - | - | - | - | - | - | - | - | - |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Amber
**Physical State:** Liquid
**Odor:** Typical petroleum
**Odor Threshold:** No data available
**pH:** No data available
**Vapor Pressure:** Negligible at STP
**Vapor Density (Air = 1):** >1 at STP
**Density** (lb/gal): 7.684
**% Solids by weight:** 1.777%
**Density VOC:** 6.592
**% VOC:** 85.790%
**VOC Actual (lb/gal):** 6.592
**VOC Regulatory (lb/gal):** 6.592
**VOC Regulatory (g/l):** 789.932
**Boiling Point/Boiling Range:** No data available
**Solubility:** Insoluble in water
**Freezing Point:** No data available
**Melting Point:** No data available
**Pour Pont Temperature:** No data available
**Viscosity:** 925.27 cSt at 40°C (104°F)
51.12 cSt at 100°C (212°F)
**Specific Gravity:** 0.921
**Evaporation Rate:** No data available
**Decomposition Temperature:** No data available
**Partition Coefficient:** No data available
**Flash Point:** 240°C (464°F)
**Flammability (Solid, Gas):** Flash Point at or above 200°F
**Upper Flammability Limits:** No data available
**Lower Flammability Limits:** No data available
**Auto-Ignition Temperature:** No data available
**Kinematic Viscosity:** No data available
**Dynamic Viscosity:** No data available
**Explosive Properties:** No data available
**Oxidizing Properties:** No data available

## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable under recommended storage conditions.

**HAZARDOUS POLYMERIZATION:** Under normal conditions of storage and use, hazardous polymerization will not occur.

**CONDITIONS TO AVOID:** Avoid direct sunlight, extremes of temperatures and contact with incompatible

materials. Avoid high temperatures and product contamination.

**INCOMPATIBLE MATERIALS:** This product may react with strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Smoke, carbon monoxide and dioxide and other aldehydes of incomplete combustion. Oxides of C, N and S. Hydrogen sulfide and alkyl mercaptans and other sulfides may be released.

## SECTION 11: TOXICOLOGICAL INFORMATION

**INFORMATION OF LIKELY ROUTES OF EXPOSURE:**

**EYE CONTACT:** Avoid prolonged contact with the eyes, which may cause mild eye discomfort, tearing, or blurring of vision.

**SKIN CORROSION/IRRITATION:** No data available.

**RESPIRATORY/SKIN SENSITIZATION:** Prolonged or repeated contact may lead to an allergic skin sensitization in some people and dermatitis (dryness, chapping and reddening of skin).

**GERM CELL MUTAGENICITY:** No data available.

**CARCINOGENICITY:** May cause cancer.

**REPRODUCTIVE TOXICITY:** No data available.

**SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** No data available.

**SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** No data available.

**ASPIRATION HAZARD:** Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

**ACUTE TOXICITY:** If inhaled: Overexposure by inhalation of hot material may cause nonspecific discomfort, such as nausea, headache or weakness. Caution should be taken to prevent forming aerosol or misting of this product without proper respiratory protection.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation-LD50 |
|---|---|---|---|
| Hydrotreated (Mild) Heavy Naphthenic 64742-52-5 | >5000 mg/kg (Rat, oral) Details of toxic effects not reported other than lethal dose value | >2000 mg/kg (Rabbit) Details of toxic effects not reported other than lethal dose value | |
| Hydrotreated Light Naphthenic Distillate 64742-53.6 | >5000 mg/kg (Rat, oral) Behavioral – general depressed activity | >2000 mg/kg (Rabbit) Primary irritation after topical exposure | |

## SECTION 12: ECOLOGICAL INFORMATION

**BIO-ACCUMULATIVE POTENTIAL:**

| | |
|---|---|
| Mineral Oil, Petroleum distillates, hydrotreated heavy paraffinic 64742-52-5 | Contains constituents with the potential to bioaccumulate |

**MOBILITY IN SOIL:**

| | |
|---|---|
| Mineral Oil, Petroleum Distillates, Hydrotreated mild heavy naphthenic 64742-52-5 | Liquid under most environmental conditions. Floats on water. If it enters soil, it will absorb to soil particles and will not be mobile |

**TOXICITY:** No data available

**PERSISTENCE/DEGRADABILITY:** No data available

**OTHER ADVERSE EFFECTS:** No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

**DISPOSAL OF WASTES:** Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

## SECTION 14: TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**BULK SHIPPING DESCRIPTION:** Does not apply to bulk oil shipping

**NON-BULK SHIPPING DESCRIPTION:** Does not apply to non-bulk oil shipping

**IDENTIFICATION NUMBER:** Not applicable

**HAZARD CLASSIFICATION:** Not applicable

**IMDG:** Not classified as dangerous under IMDG regulations

**IATA:** Not classified as dangerous under IATA regulations

## SECTION 15: REGULATORY INFORMATION

| Chemical Name | CAS | % By Weight | Regulation List |
|---|---|---|---|
| Polypropylene | 09010-79-1 | 0.1% - 2.1% | SARA312, TSCA, TX_ESL |
| Base Oil – Unspecified | 64742-52-5 | 36% - 49% | SARA312, TSCA, OSHA |
| Base Oil – Unspecified | 64742-53-6 | 36% - 49% | SARA312, TSCA, OSHA |
| Polysulfides, di-tert-Bu | 68937-96-2 | 0.1% - 2.1% | SARA312, TSCA |

**Legend:**

**TSCA –** United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

## SECTION 16: OTHER INFORMATION

**NFPA RATINGS:** Health: 1 Flammability: 1 Reactivity: 0 Special Hazards: NA

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0 Personal Protection: NA

***DISCLAIMER***

*The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose*

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