

**MATERIAL SAFETY DATA SHEET**  
**Used Lube Oil**

# MATERIAL SAFETY DATA SHEET

## Used Lube Oil

Section I. Product and Company Identification	
Material Name:	Used Lube Oil
Synonyms:	Waste Lube Oil; Used lubricating oil; Oil and water mixture
Material Use:	Feed for re-refining.
Manufacturer:	
MSDS Version:	1.0
MSDS Date:	17 May 2016

Section II. Hazards Identification		
Classification according to Regulation (EC) No. 1272/2008 [CLP]		
Flammability Category 3	H227	Combustible liquid
Aspiration Toxicity Category 1	H304	May be fatal if swallowed and enters airways
Carcinogenicity Category 1B	H350	May cause cancer.
Specific Target Organ Toxicity - Single Exposure, Category 1 (kidneys, central nervous system, lungs) Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system and respiratory tract)	H336	H336: May cause drowsiness or dizziness. Affected organs: Central nervous system Route of exposure: Inhalation
Skin Irritant Category 2	H315	Causes skin irritation
Aquatic Toxicity (Chronic) Category 3	H412	Harmful to aquatic life with long-lasting effects.

CLP Precautionary statements	
P201: Obtain special instructions before use.	
P210: Keep away from heat, sparks, open flames, hot surfaces. No smoking.	
P273: Avoid release to the environment.	
P280: Wear protective gloves/protective clothing/eye protection/face protection.	
P331: Do NOT induce vomiting.	
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.	
P308+P313: IF exposed or concerned: Get medical advice/attention.	
P501: Dispose of contents/container in accordance with local and national regulations.	

			
GHS08	GHS07	GHS09	

Classification according to Directive 67/548/EEC or 1999/45/EC	
Acute Toxicity	R66 Repeated exposure may cause skin dryness or cracking.
Carcinogenicity	R45 May cause cancer.
Aquatic	R52 Harmful to aquatic organisms.
Aquatic	R53 May cause long-term adverse effects in the aquatic environment

			
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### NFPA 704 HAZARD IDENTIFICATION

Summary of Hazards				
Health	Fire Hazard	Reactivity	4	Extreme
			3	High
			2	Slight
			1	Least
Specific Hazard				
Summary of Hazards				

### Health Hazards

May be harmful if inhaled. May irritate skin. May be harmful or fatal if swallowed. May cause irritation of the respiratory tract. May irritate eyes. May cause cancer. Risk of cancer depends on duration and level of exposure. May cause central nervous system damage.

### Physical Hazards

Combustible liquid

### Health Effects: Eye Contact

May cause irritation to eyes on repeated contact with liquid, spray, or mist.

### Health Effects: Skin Contact

May cause irritation to skin on repeated contact with liquid, spray or mist. Can be absorbed through skin.

### Health Effects: Ingestion

Swallowing or vomiting of the liquid may cause aspiration into the lungs and thus chemical pneumonia, severe lung damage, respiratory failure and even death. Transport to nearest medical facility.

### Health Effects: Inhalation

Vapors or mists can cause irritation to the nose, throat and lungs. Can cause symptoms of central nervous system depression, depending on the concentration and duration of exposure. Inhalation of high concentrations may cause dizziness, drowsiness, headache and similar narcotic symptoms.

## Section III. Composition/Information on Ingredients

Material Description:	Saturated and aromatic Hydrocarbons, with number of carbon atoms in the range from C10 to C50.	
Reportable Quantity:	See Section XV, Regulatory Information.	
Marine Pollutant:	Yes	
Ingredients		
Ingredient Name	CAS #	Concentration Range
Used Lubricating Oils	70514-12-4	70-100%
Water and Solids	7732-18-5	0-15%
Hydrocarbon solvents; Gasoline; Diesel	-	0-10%
Polynuclear aromatics	Pyrene (129-00-0), Phenanthrene (85-01-8), Naphthalene (91-20-3), Fluoranthene (206-44-0)	0-1.5%
Metals (lead, iron, zinc, copper, chromium, arsenic, nickel)	7439-92-1; 7439-89-6; 7440-66-6; 7440-50-8; 7440-47-3; 7440-38-2; 7440-02-0	0-1.5%

## **Section IV. First Aid Measures**

### **First Aid: Eye Contact**

Remove contact lenses if it can be done safely. Flush immediately with large amounts of water for at least 15 minutes, while holding eyelids open. Continue rinsing. Seek medical advice if pain or redness continues.

### **First aid: Skin Contact**

Remove contaminated clothing and shoes. Wash skin with soap and water. Completely decontaminate clothing, shoes and protective equipment before reuse. Contaminated leather goods should be discarded.

In case of skin contact with hot product, immediately immerse or drench the affected area in water to assist cooling. Get immediately medical attention. If irritation persists or symptoms develop, seek medical attention.

### **First Aid: Ingestion**

Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

### **First Aid: Inhalation**

Remove to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm, quiet and get medical attention.

## **Section V. Fire Fighting Measures**

### **Fire & Explosion Hazards**

Flammable liquid with high ignition temperature. Burning forms smoke, carbon monoxide, carbon dioxide and decomposition products of heavy hydrocarbons. Vapors may be explosive in confined spaces. Mists or sprays may be flammable at temperatures below flash point.

### **Extinguishing Media**

Dry chemical, halon, carbon dioxide. Foam, water spray or fog are effective but may cause frothing. Do not use a water jet since it may cause the fire to spread. Use water to cool fire exposed containers and to protect personnel.

### **Advice for firefighters**

Do not enter enclosed fire spaces without proper protective equipment. Fire fighters should wear full – face, self contained breathing apparatus and thermal protective clothing. Evacuate the area from unnecessary personnel. If a tank, tank truck or rail car is involved in fire evacuate a radius of ½ mile. Position firefighters upwind. Cool containers with water spray. If possible withdraw containers from fire area. Improper use of extinguishing media containing water may cause frothing and thus spread the fire to a larger area.

## **Section VI. Accidental Release Measures**

### **Personnel precautions & protective equipment**

Personnel should wear suitable protective clothing, gloves, boots, eye and face protection, especially when handling hot material. Avoid contact with the eyes, skin and clothes. Avoid vapor and fog inhalation. No respiratory protection is needed under normal conditions with adequate ventilation. Eye protection should be worn, including chemical type goggles or face shield. Do not wear contact lenses. Provide eye wash water. In case of fire personnel should wear self – contained breathing apparatus. Spills may result in slippery walking areas. Eliminate all sources of ignition.

### **Environmental precautions**

Do not discharge into drains. Do not discharge into environment. The material may be hazardous to aquatic life. The material may cause increase of chemical and biological oxygen demand of water.

### **Spills**

Isolate hazardous area. Ventilate area. Avoid breathing mists/vapors. Vapor suppressing foam may be used to reduce vapors. Stop spill if possible. Absorb spills with inert material. Remove ignition sources. Use dikes and water booms to contain discharge. Use non – sparking tools and equipment (pumps etc). Prevent entry into sewers. Wear appropriate protective equipment.

## Section VII. Handling and storage

### Handling

Provide adequate ventilation to minimize vapour concentrations. Remove ignition sources. Use clean tools and explosion-proof equipment. Avoid contact with skin, eye and clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Keep containers closed when not in use. Avoid all unnecessary exposure. Do not eat, drink and do not smoke in areas where product is used. Remove contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety procedures. Equipment handling the material should be steam cleaned prior to maintenance.

### Storage

Store in grounded, tightly sealed, proper vessels away from heat, sparks, open flame and other ignition sources. Provide storage area with adequate extinguishing measures. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Prevent soil and water contamination. Storage tanks should be diked. Empty product containers may retain product residue and can be dangerous.

### Incompatible materials

Strong oxidizing agents. Strong acids. Halogens. Reactive metals.

## Section VIII. Exposure Controls & Personal Protection

### Exposure Limits (Polynuclear aromatics)

**ACGIH:** 10 ppm TWA (Naphthalene)

Skin - potential significant contribution to overall exposure by the cutaneous route (Naphthalene)

**OSHA Final:** 0.2 mg/m<sup>3</sup> TWA (Pyrene)

**OSHA Vacated:** 10 ppm TWA; 50 mg/m<sup>3</sup> TWA (Naphthalene)  
15 ppm STEL; 75 mg/m<sup>3</sup> STEL (Naphthalene)

**NIOSH:** 10 ppm TWA; 50 mg/m<sup>3</sup> TWA (Naphthalene)  
15 ppm STEL; 75 mg/m<sup>3</sup> STEL (Naphthalene)

### Exposure Limits (Metals)

**ACGIH:** 0.05 mg/m<sup>3</sup> TWA (Lead)

**OSHA Final:** 30 µg/m<sup>3</sup> Action Level (29 CFR 1910.1025); 50 µg/m<sup>3</sup> TWA (29 CFR 1910.1025, Lead)  
50 µg/m<sup>3</sup> TWA (Lead)

**OSHA Vacated:** 1 mg/m<sup>3</sup> TWA (Nickel)

**NIOSH:** 0.050 mg/m<sup>3</sup> TWA (Lead)  
0.002 mg/m<sup>3</sup> Ceiling (15 min, Arsenic)

### Exposure Controls

Provide storage area with adequate ventilation, to maintain vapor/mist below exposure limits. Provide emergency eye wash fountains and safety showers. Use explosion proof electrical equipment. Personal protective equipment includes impermeable protective nitrile gloves, chemical goggles or face shield with safety glasses, fire retardant clothing. Use oil resistant anti slippery shoes. In case of insufficient ventilation combined gas / dust mask with filter type A/P2 should be used. In confined spaces self contained breathing apparatus should be used. Spills should be contained with dikes and / or absorbents. Entrance to sewers and streams should be prevented.

<b>Section IX. Physical &amp; Chemical Properties</b>	
Physical State	Viscous Liquid
Appearance	Thick Liquid
Color	Black
Odour	Petroleum
Odour threshold	No data available
pH	Not applicable
Boiling point range	200 – 610 °C
Pour point	-10 °C
Vapor Pressure	6 mm Hg at 20°C
Evaporation Rate (n-Butyl Acetate=1)	Slow – only partially volatile
Specific Gravity (water=1)	0.88 – 0.97 at 15°C
Viscosity	5 – 70 cSt at 50°F
Flash Point	>93°C (Pensky – Martens, closed cup)
Auto Ignition Temperature	> 285°C
Upper Flammable Limit (UFL)	6.5% vol
Lower Flammable Limit (LFL)	0.5% vol
Relative Vapor Density (air=1)	> 1
Water Solubility	Negligible

<b>Section X. Stability &amp; Reactivity Information</b>
<b>Chemical Stability</b>
Material stable under normal conditions.
<b>Conditions to Avoid</b>
Avoid ignition sources.
<b>Incompatible materials</b>
Strong Oxidizing Agents. Strong Acids. Heated vapors or mists may form explosive mixtures with air. Halogens. Reactive metals.
<b>Hazardous Decomposition Products</b>
Lower molecular weight hydrocarbons. Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Sulfur Oxides, Chlorine. Thermal decomposition may produce low molecular weight gases.

<b>Section XI. Toxicological Information</b>
<b>Used Lubricating Oil (70514-12-4)</b>
LD50 oral rat > 2000 mg/kg
LD50 dermal rabbit > 4480 mg/kg
Acute toxicity : Harmful if inhaled.
Aspiration hazard : May cause respiratory tract irritation, dizziness, drowsiness, asthma, and allergic reactions.
Skin corrosion/irritation : Causes skin cracking due to drying and degreasing. Irritation or inflammation possible at prolonged or frequent contact.
Serious eye damage/irritation : Causes eye irritation
Respiratory or skin sensitisation : May cause sensitization
Germ cell mutagenicity : May cause genetic defects
Carcinogenicity : May Cause Cancer.
Reproductive toxicity : May be reproductive toxicity associated with this material
Specific target organ toxicity (single exposure) : Kidneys, central nervous system, lungs, respiratory tract
Specific target organ toxicity (repeated exposure): Repeated or prolonged exposure may cause skin irritation. Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation.
Potential Adverse human health effects and symptoms: Harmful if swallowed. Causes skin irritation and eye irritation. May be fatal if swallowed and enters airways. May cause asthma or allergic reactions. Causes damage to kidneys, central nervous system, and lungs. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball

(conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). May cause cancer and mutagenic effects. May damage fertility or the unborn child.

## Section XII. Ecological Information

### Ecotoxicity

#### General

Material is insoluble to water. Material is lighter than water. Spills may form a film on the surface of water which can diminish dissolved oxygen levels, harming aquatic organisms. Toxic to aquatic life. Limited dispersion in soil.

#### Harmful Exposure Limits

LC50 fish, Pimephales promelas 3.2 mg/l 96 hours

EC50 Artemia salina > 22,500 mg/l 48 hours

#### Biodegradability

Material is not easily biodegradable. Rates depend on soil moisture, bacteria and other conditions. Not likely to produce short term degradation hazardous products.

## Section XIII. Disposal Considerations

Disposal must be done according to local regulations. Dispose of this material at approved waste recycling facilities. Disposal of packaging according to local regulations.

## Section XIV. Transportation Information

### UN

UN Number: UN 3082 (When contaminated with metals e.g. lead>5ppm), Class 9, Packing group III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LEAD)

### Environmental Hazards

Not Applicable

### Overland transport

Not classified as dangerous according to ADR regulations.

Not classified as dangerous according to RID regulations.

### IATA / ICAO Information

Not regulated as dangerous goods for transportation.

### IMDG Information

IMDG follows the US DOT Hazardous Materials Regulation.

### ADR/RID/ADN Information

Not classified as dangerous according to ADR/RID/ADN regulations.

### US DOT Information

US Department of Transportation (DOT) under 49 CFR 172.101 regulates Used Oil.

## Section XV. Regulatory Information

### EU

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation). According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorization as listed on Annex XIV of the REACH regulation (EC)1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation. According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES. The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII, No.3.

### US

TSCA: All components listed or exempted.

CERCLA: This product may contain "hazardous substances" listed pursuant to Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

SARA 302/304: This product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA 311/312: This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

- Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard

SARA 313: This product may contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372

## **Section XVI. Other Information**

The information presented in this Material Safety Data Sheet is based on current knowledge and is believed to be complete and accurate at the time of preparation of this document. It describes the material for the purposes of health, safety and environment requirements only and shall, therefore, be used only as a guide. The data refers to a specific product and may not be valid for combined uses with other products. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. GOAL shall not be responsible for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. Unless specifically agreed otherwise GOAL does not take responsibility for use, transportation, storage, handling or disposal of the material described herein.