

# MATERIAL SAFETY DATA SHEET

## S-OIL GREASE HT 3

Date of the previous version: -

Revision Date: 2025-02-28

Version 0

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name S-OIL GREASE HT 3  
Pure substance/mixture Mixture

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Lubrication Grease

#### 1.3. Details of the supplier of the safety data sheet

Supplier S-OIL CORPORATION  
192, Baekbeom-ro, Mapo-gu,  
Seoul 04196, Korea

#### For further information, please contact:

Contact Point CALS Corp.  
E-mail Address 123-63 Injusandan-ro, Inju-myeon, Asan-si, Chungcheongnam-Do, 31435, Korea  
rnd@calscorps.com

#### 1.4. Emergency telephone number

Korea + 82-2-70-7864-2061

### 2. HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

GHS Classification

Not classified

#### 2.2. Label elements

GHS label elements, including precautionary statements

Symbol(s) Not Classified

Signal Words Not Classified

#### 2.3. GHS Hazard Statements

Not classified

#### 2.4. GHS Precautionary Statements

Prevention Not Classified

Response Not Classified

Storage Not Classified

Disposal Not Classified

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#### **2.5. Other hazards**

**Physical-Chemical Properties**

By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (section # 7) and personal protective equipment (section # 8) are kept.

**Environmental properties**

The product may not be released into the environment without control.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **3.1. Mixture**

Chemical Name	CAS-No	EC-No	Weight %
Hydrotreated (mild) heavy paraffinic distillate	64742-54-7	265-157-1	35.0 ~ 45.0
Residual oils (petroleum), hydrotreated	64742-57-0	265-160-8	35.0 ~ 45.0
Lithium Hydroxystearate	7620-77-1	231-536-5	10.0 ~ 15.0
Dilithium Azelate	38900-29-7	231-536-5	5.0 ~ 10.0
Zinc bis[O,O-bis(2-ethylhexyl)]bis(dithiophosphate)	4259-15-8	224-235-5	< 1.0

**Additional information**

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

### 4. FIRST AID MEASURES

#### **4.1. Description of first-aid measures**

**General advice**

Not data available.

**Eye contact**

If it gets on your eyes, wash it carefully with water for a few minutes.  
If possible, remove contact lenses. Continue to wash.  
If eye irritation persists get medical advice/attention.

**Skin contact**

If skin irritation occurs: Get medical advice/attention.  
For hot substances, soak or flush affected area with large amounts of cold water to dissipate heat.  
Remove contaminated clothing and shoes and isolate contaminated areas.  
Rinse skin and eyes immediately with plenty of water for at least 20 minutes when in contact with the material.  
Prevent spread of contamination on mild skin contact.

**Inhalation**

If exposed or concerned about exposure: Get medical advice/attention.  
If exposed to excess dust or fume, remove it with clean air and take medical

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	measures if you have cough or other symptoms.
<b>Ingestion</b>	If exposed or concerned about exposure: Get medical advice/attention. If the substance is ingested or inhaled, do not perform mouth-to-mouth artificial respiration and use appropriate respiratory medical equipment.
<b>Protection of First-aiders</b>	In case of exposure, contact medical staff and take special emergency measures such as follow-up. Instruct medical personnel to be aware of the substance and to take protective measures.

#### **4.2. Most important symptoms and effects, both acute and delayed**

<b>Eye contact</b>	Not data available.
<b>Skin contact</b>	Not data available.
<b>Inhalation</b>	Not data available.
<b>Ingestion</b>	Not data available.

#### **4.3. Indication of immediate medical attention and special treatment needed, if necessary**

<b>Notes to physician</b>	Not data available.
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### **5. FIRE-FIGHTING MEASURES**

#### **5.1. Extinguishing media**

<b>Suitable extinguishing media</b>	Water spray, foam, dry powder or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this spread the fire.

#### **5.2. Special hazards arising from the substance or mixture**

<b>Special Hazard</b>	Vapors may travel to a source of ignition and ignite. Fire may produce irritating and/or toxic gases. Inhalation of material may be harmful. Some liquids produce vapors that may cause dizziness or suffocation.
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#### **5.3. Advice for fire-fighters**

<b>Special protective equipment for fire-fighters</b>	Use personal protective equipment as required.
<b>Other information</b>	Evacuate area and fight fire from a safe distance. Move containers from fire area if you can do it without risk. Fire involving Tanks; Do not direct water at source of leak or safety devices; icing may occur. Fire involving Tanks; Cool containers with flooding quantities of water until well after fire is out. Fire involving Tanks; Always stay away from tanks engulfed in fire. Some may be transported hot. Contact may cause burns to skin and eyes. Fire involving Tanks; For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Fire involving Tanks; Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

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Fire involving Tanks; Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

<b>General Information</b>	<p>Wipe off any spills immediately and follow all protective precautions.          Isolate the contaminated area.          Do not enter if you do not need to enter or are not equipped with protective equipment.          Remove all ignition sources.          Stop the leak if it is not dangerous.          Do not touch a damaged container or spill without adequate protection.          Cover with plastic sheet to prevent diffusion.          Be aware of the materials and conditions to avoid.</p>
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**6.2. Environmental precautions**

<b>General Information</b>	Prevent entry into waterways, sewers, basements, and confined spaces.
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**6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Absorb the liquid and scrub the area with detergent and water.
<b>Methods for cleaning up</b>	Use control tools to collect spillage and place it into loosely covered plastic containers.

**6.4. Reference to other sections**

<b>Personal Protective Equipment</b>	See Section 8 for more detail.
<b>Waste treatment</b>	See section 13.

**7. HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

<b>Advice on safe handling</b>	<p>Do not handle all safety precautions until you read and understand them.          Wash thoroughly after handling.          Use only outdoors or in a well-ventilated area.          Follow all MSDS / label precautions as product residues may remain after emptying containers.          Please use care in handling / storage.          Carefully open the stopper before opening.          Avoid prolonged or repeated skin contact.          Be aware of the materials and conditions to avoid.</p>
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<b>Prevention of fire and explosion</b>	Not data available
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<b>Hygiene measures</b>	Wash the handling area thoroughly after handling.
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**7.2. Conditions for safe storage, including any incompatibilities**

<b>Technical measures/Storage conditions</b>	<p>Store locked up.          Store in a well-ventilated place. Keep container tightly closed.</p>
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Keep container tightly closed in a well-ventilated place.  
The empty drum should be completely drained, properly blocked and immediately returned to the drum regulator or properly positioned.

**Materials to Avoid** Strong oxidizing agents.

### 7.3. Specific end uses

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Exposure limits Not data available

Legend Not data available

### 8.2. Exposure controls

#### Occupational Exposure Controls

**Engineering Measures** Use engineering controls such as process enclosures, local exhaust ventilation or control of airborne levels below recommended exposure limits. Facilities for storing or utilizing this material should be equipped with an eye wash facility and a safety shower.

#### Personal Protective Equipment

**General Information** Adequate ventilation systems may be needed to control airborne contaminant concentrations above permissible threshold limits. Setting up safety showers and face-washing facilities is recommended.

**Respiratory protection** Avoid direct contact and wear an anti dust mask.

**Eye Protection** Avoid direct contact and wear protective glasses.(safety goggles)

**Skin and body protection** Avoid direct contact and wear suitable chemical resistant clothing.

**Hand Protection** Avoid direct contact and wear safety gloves. (chemical-resistant gloves)

#### Environmental exposure controls

**General Information** The product should not be allowed to enter drains, water courses or the soil.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Color	Yellow
Physical State @20°C	Semi-solid
Odor	Slight odor

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not data available	
Boiling point/boiling range		Not data available	
Flash point		Not applicable	
Evaporation rate		Not data available	
Flammability Limits in Air		Not data available	

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Vapor Pressure		Not data available
Vapor density		Not data available
Specific gravity	0.85	@ 15 /4°C
Water solubility		Not data available
Solubility in other solvents		Not data available
logPow		Not data available
Autoignition temperature		Not data available
Viscosity, kinematic		Not data available
		Not data available
Explosive properties		Not data available
Oxidizing Properties		Not data available
Possibility of hazardous reactions		Not data available

**9.2. Other information**

- Not data available

<b>10. STABILITY AND REACTIVITY</b>
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**10.1. Reactivity**

General Information                      No specific reactivity hazards associated with this product..

**10.2. Chemical stability**

Stability.                                      Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous Reactions                      Under normal conditions of storage and use, hazardous reactions will not occur...

**10.4. Conditions to Avoid**

Conditions to Avoid                      Ignition sources (heat, sparks or flames)

**10.5. Incompatible Materials**

Materials to Avoid                      Flammable material

**10.6. Hazardous Decomposition Products**

Hazardous Decomposition Product                      Material may produce irritating and highly toxic gases from decomposition by heat and combustion during burning Irritating and/or toxic gases

<b>11. TOXICOLOGICAL INFORMATION</b>
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**11.1. Information on toxicological effects**

Acute toxicity Local effects Product Information

Skin contact	Not classified. Skin contact May cause skin irritation.
Eye contact	Not classified. Eye contact Direct contact with eyes may cause temporary irritation, eye damage, vision loss
Inhalation	Not classified. Inhalation May cause lung irritation, dizziness, drowsiness, numbness

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**Ingestion**

Not classified. Ingestion May cause vomiting, diarrhea, stomachache, arrhythmias, headache, changing blood pressure

**Acute toxicity - Component Information**

Chemical name	Oral	Dermal	Inhalation
Hydrotreated (mild) heavy paraffinic distillate	LD50 > 15,000 mg/kg Rat	LD50 > 5,000 mg/kg Rabbit	No data available
Residual oils (petroleum), hydrotreated	LD50 > 5,000 mg/kg Rat (No Deaths, OECD Guideline 401 (Acute Oral Toxicity), GLP)	LD50 > 2,000 mg/kg Rabbit (No Deaths, OECD Guideline 402 (Acute Dermal Toxicity), GLP)	Dust LC50> 2.18 mg/l 4 hr Rat (OECD Guideline 403 (Acute Inhalation Toxicity), GLP)
Lithium Hydroxystearate	No data available	No data available	No data available
Dilithium Azelate	No data available	No data available	No data available
Zinc bis[O,O-bis(2-ethylhexyl)]bis(dithiophosphate)	LD50 > 2000 mg/kg Mouse	LD50 > 5000 mg/kg Rabbit	LD50 > 7940 mg/kg Rabbit

**Sensitization**

**Sensitization**

Not classified.

**Specific effects**

**Carcinogenicity**

Not data available

**Mutagenicity**

Not data available

**Reproductive toxicity**

Not data available

**Repeated Dose Toxicity**

**Subchronic toxicity**

Not data available

**Target Organ Effects (STOT)**

**Target Organ Effects (STOT)**

Not data available

**Other information**

**Other adverse effects**

Not data available

**12. ECOLOGICAL INFORMATION**

**12.1. Toxicity**

1) Acute toxicity

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Chemical name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish
Hydrotreated (mild) heavy paraffinic distillate	EC50 > 1000 mg/l 96 hr Scenedesmus subspicatus	EC50 > 1,000 mg/l 48 hr Daphnia magna	LC50 > 5,000 mg/l 96 hr Oncorhynchus mykiss
Residual oils (petroleum), hydrotreated	No data available	Poorly soluble substance, water solubility is less than 1mg/L, so acute toxicity is not classified.	Poorly soluble substance, water solubility is less than 1mg/L, so acute toxicity is not classified.
Lithium Hydroxystearate	No data available	No data available	No data available
Dilithium Azelate	No data available	No data available	Not classified as a poorly soluble substance with a water solubility of less than 1 mg/L
Zinc bis[O,O-bis(2-ethylhexyl)]bis(dithiophosphate)	EL50 410 mg/l 72 hr (OECD TG 201, EU Method C.3 (Algal Inhibition test), static formula, freshwater, GLP)	EL50 75 mg/l 48 hr Daphnia magna (OECD TG 202, static formula, fresh water, GLP)	LL50 4.4 mg/l 96 hr Oncorhynchus mykiss (OECD TG 203, semi-static, fresh water, GLP)

2) Chronic Toxicity Not data available

**Effects on terrestrial organisms** Not data available

### **12.2. Persistence and degradability**

#### **General Information**

Chemical name	Persistence	Degradability
Hydrotreated (mild) heavy paraffinic distillate	log Kow 3.9 ~ 6 (estimate)	No data available
Residual oils (petroleum), hydrotreated	log Kow 8.81	BOD5/COD (No data on degradability)
Lithium Hydroxystearate	log Kow 2.60	No data available
Dilithium Azelate	No data available	No data available
Zinc bis[O,O-bis(2-ethylhexyl)]bis(dithiophosphate)	log Kow 3.59 (log Pow, 22°C)	No data available

### **12.3. Bioaccumulative potential**

**Product Information** Not data available

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logPow Not data available

Component Information Not data available

#### **12.4. Mobility in soil**

Soil Not data available

Air Not data available

Water Not data available

#### **12.5. Results of PBT and vPvB assessment**

PBT and vPvB assessment Not data available

#### **12.6. Other adverse effects**

General Information Not data available

### **13. DISPOSAL CONSIDERATIONS**

#### **13.1. Waste treatment methods**

Waste from Residues / Unused Products Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Contaminated packaging Dispose of contents/container in accordance with relevant regulation.

Other information Not data available

### **14. TRANSPORT INFORMATION**

**ADR/RID** Not applicable

**IMDG/IMO** Not applicable

**ICAO/IATA** Not applicable

**ADN** Not applicable

### **15. REGULATORY INFORMATION**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **International Inventories**

EU regulations : Authorisations: Not regulated  
: Restrictions on use: Not regulated

Other EU regulations

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Substance of Rotterdam Convention : Not regulated  
Substance of Stockholm Convention : Not regulated  
Substance of Montreal Protocol : Not regulated  
SVHC list : Not regulated

Harmonized classification – Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation) : Not available

#### Further information

##### 15.2. Chemical Safety Assessment

Chemical Safety Assessment

No information available

#### 16. OTHER INFORMATION

##### Abbreviations, acronyms

ACGIH = American Conference of Government Industrial Hygienists

CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1278/2008

CAS No. = Chemical Abstracts Service number

EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)

EU = European Union

OSHA = European Agency for Safety and Health at work

PBT = Persistent, Bioaccumulative and Toxic substance

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 2020/878

SVHC = Substances of Very High Concern

vPvB = Very Persistent and Very Bioaccumulative

UN = United Nations

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Revision Note Rev.0

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the safety data sheet