



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)  
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team  
Zep Inc.

## MATERIAL SAFETY DATA SHEET

## S-OIL SEVEN HKM ATF SP-IV M1

Date of the previous version: 2024-05-16

Revision Date: 2024-07-12

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**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**

Product name	S-OIL SEVEN HKM ATF SP-IV M1
Pure substance/mixture	Mixture

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

Recommended Use	ATF
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**1.3. Details of the supplier of the safety data sheet**

Supplier	S-OIL CORPORATION 192, Baekbeom-ro, Mapo-gu, Seoul 121-805, Korea
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**For further information, please contact:**

Contact Point	S-OIL
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**1.4. Emergency telephone number**

Korea	+ 82 2 1644 5151
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**2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****GHS Classification**

Hazardous to the aquatic environment-Chronic (long term) aquatic toxicity: Category 3

**2.2. Label elements****GHS label elements, including precautionary statements**

Symbol(s)	Not Classified
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Signal Words	Not Classified
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**2.3. GHS Hazard Statements**

H412 Harmful to aquatic life with long lasting effects.

**2.4. GHS Precautionary Statements**

Prevention	P273 Avoid release to the environment
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Response	Not Classified
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Storage	Not Classified
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Disposal	P501 Disposal of contents/container to... (in accordance with local/regional/national/international regulation.)
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### 2.5. Other hazards

Physical-Chemical Properties

Contaminated surfaces will be extremely slippery.

Environmental properties

Should not be released into the environment

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Mixture

Chemical Name	CAS-No	EC-No	Weight %
Severely hydrogenated heavy paraffinic distillate	64742-54-7	265-157-1	80.0 ~ 85.0
Mixed Performance Additive	-	-	5.0 ~ 10.0
Viscosity Modifier Additive	-	-	5.0 ~ 10.0
Motor Oil Additive	-	-	< 1.0
Polymer Esters of Methacrylic Acid and Mixed Mixed long chain Alcohols	-	-	< 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

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact

Rinse thoroughly with plenty of water, also under the eyelids.

Skin contact

Remove contaminated clothing and shoes. Wash skin with soap and water. Wash contaminated clothing before reuse. High pressure jets may cause skin damage. In this case, the casualty should be sent immediately to hospital.

Inhalation

Move to fresh air.

Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

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

Eye contact

Not classified.

Skin contact

Not classified. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.

Inhalation

Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion

Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Notes to physician

Treat symptomatically.

#### **5. FIRE-FIGHTING MEASURES**

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

Suitable extinguishing media

CO2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable extinguishing media

No information available

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

Special Hazard

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

##### **5.3. Advice for fire-fighters**

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information

Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### **6. ACCIDENTAL RELEASE MEASURES**

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

General Information

Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery.  
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

##### **6.2. Environmental precautions**

General Information

Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses.  
Local authorities should be advised if significant spillages cannot be contained.

##### **6.3. Methods and material for containment and cleaning up**

Methods for containment

Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g.sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Keep in suitable, closed containers for disposal.

##### **6.4. Reference to other sections**

Personal Protective Equipment

See Section 8 for more detail.

Waste treatment

See section 13.

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#### 7. HANDLING AND STORAGE

##### 7.1. Precautions for safe handling

Advice on safe handling	When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
Prevention of fire and explosion	Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment.
Hygiene measures	Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

##### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.
Materials to Avoid	Strong oxidizing agents.
Fire service Act (Japan)	Category IV; Inflammable Liquids, Class III petroleum (Non-water soluble liquid), (Designated quantity: 2,000L)

##### 7.3. Specific end uses

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### 8.1. Control parameters

Exposure limits	oil mist : 10mg/m <sup>3</sup> , for 15 minutes; oil mist : 5mg/m <sup>3</sup> , for 8 hours
Legend	See section 16.

##### 8.2. Exposure controls

###### Occupational Exposure Controls

Engineering Measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
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###### Personal Protective Equipment

General Information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use

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	appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.
<b>Eye Protection</b>	If splashes are likely to occur, wear:. Safety glasses with side-shields.
<b>Skin and body protection</b>	Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.
<b>Hand Protection</b>	Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved 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 To amber	
Physical State @20°C		liquid	
Odor		Characteristic	
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Boiling point/boiling range		Not applicable	
Flash point	214 °C 417 °F		Cleveland Open Cup (COC) Cleveland Open Cup (COC)
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Density	844 kg/m³	@ 15 °C	
Water solubility	Negligible	Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature	Not applicable		
Viscosity, kinematic	5.4 mm²/s	@ 100 °C	
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	Not applicable		

#### 9.2. Other information

### 10. STABILITY AND REACTIVITY

#### 10.1. Reactivity

**General Information** No information available.

#### 10.2. Chemical stability

**Stability.** Stable under recommended storage conditions.

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### **10.3. Possibility of hazardous reactions**

**Hazardous Reactions**                      None under normal processing.

### **10.4. Conditions to Avoid**

**Conditions to Avoid**                      Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

### **10.5. Incompatible Materials**

**Materials to Avoid**                      Strong oxidizing agents.

### **10.6. Hazardous Decomposition Products**

**Hazardous Decomposition Product**      None under normal use.

## **11. TOXICOLOGICAL INFORMATION**

### **11.1. Information on toxicological effects**

#### **Acute toxicity Local effects Product Information**

**Skin contact**                                      . Not classified. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.

**Eye contact**                                      . Not classified.

**Inhalation**                                        . Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

**Ingestion**                                        . Not classified.

#### **Acute toxicity - Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Severely hydrogenated heavy paraffinic distillate	LD50 > 5,000mg/kg (Rat)	LD50 > 5,000mg/kg (Rabbit)	
Mixed Performance Additive	LD50 > 10,000mg/kg (Rat)	LD50 > 2,000mg/kg (Rabbit)	
Viscosity Modifier Additive	LD50 > 5,000mg/kg (Rat)	LD50 > 2,000mg/kg (Rabbit)	
Motor Oil Additive	LD50 > 10,000mg/kg (Rat)	LD50 > 2,000mg/kg (Rabbit)	

#### **Eye contact**

Mixed Performance Additive                      Weak to moderate eye irritant. Does not meet Canadian D2B or EU R36 criteria. Based on data from components or similar materials. Vapors formed from heating may cause eye irritation.

Additive 1    Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.

#### **Sensitization**

**Sensitization**                                      Not classified as a sensitizer.

#### **Specific effects**

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**Carcinogenicity**

This product is not classified carcinogenic.

**Mutagenicity**

This product is not classified as mutagenic.

**Reproductive toxicity**

This product does not present any known or suspected reproductive hazards.

**Repeated Dose Toxicity**
**Subchronic toxicity**

No information available.

**Target Organ Effects (STOT)**
**Target Organ Effects (STOT)**

No information available.

**Other information**
**Other adverse effects**

Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Acute aquatic toxicity - Product Information**

No information available.

**Acute aquatic toxicity - Component Information**

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Mixed Performance Additive		EC50 10-100mg/L	LC50 10-100 mg/L	
Viscosity Modifier Additive			LC50 >1,000mg/L	EC50 >1,000mg/L
Motor Oil Additive	EC50 10-100mg/L	EC50 1-10mg/L		

**Chronic aquatic toxicity - Product Information**

No information available.

**Chronic aquatic toxicity - Component Information**

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Mixed Performance Additive		EC50 1-10mg/L		
Motor Oil Additive		EC50 10-100mg/L		

**Effects on terrestrial organisms**

No information available.

### 12.2. Persistence and degradability

Chemical Name	Biodegradation
Mixed Performance Additive	Min 25% (OECD 301)
Viscosity Modifier Additive	Min 25% (OECD 301)

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Motor Oil Additive	Min 25% (OECD 301, 302)
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**General Information** No information available.

#### **12.3. Bioaccumulative potential**

**Product Information** No information available.

**logPow** No information available

**Component Information** No information available.

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

**Soil** Given its physical and chemical characteristics, the product generally shows low soil mobility.

**Air** Loss by evaporation is limited.

**Water** Insoluble. The product spreads on the surface of the water.

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

**PBT and vPvB assessment** No information available.

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

**General Information** No information available

### **13. DISPOSAL CONSIDERATIONS**

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

**Waste from Residues / Unused Products** Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EWC Waste Disposal No.** The following Waste Codes are only suggestions: 13 01 10. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

### **14. TRANSPORT INFORMATION**

**ADR/RID** Not regulated

**IMDG/IMO** Not regulated

**ICAO/IATA** Not regulated

**ADN** Not regulated

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### 15. REGULATORY INFORMATION

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

##### International Inventories

EINECS/ELINCS	All components are listed or exempted.
TSCA	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
KECL	All intentional components are listed on the inventory, are exempted, or are supplier certified.
CSCL,ISHA,PDSCL,PRTR (JAPAN)	All components are in compliance with designated regulations.

##### Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
KECL - Korean Existing and Evaluated Chemical Substances  
CSCL - Chemical Substances Control Law  
ISHA - Industrial Safety and Health Act  
PDSCL - Poisonous and Deleterious Substances Control Law  
PRTR - Pollutant Release and Transfer Register Law

##### Further information

#### 15.2. Chemical Safety Assessment

Chemical Safety Assessment	No information available
Fire service Act (Japan)	Category IV; Inflammable Liquids, Class III petroleum (Non-water soluble liquid), (Designated quantity: 2,000L)

### 16. OTHER INFORMATION

##### Abbreviations, acronyms

Legend Section 8

+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

Revision Date: 2024-07-12  
Revision Note: \*\*\* Indicates updated section.

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

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