

S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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

1.1. Product identifier

Product name S-OIL SEVEN GOLD #9 A5/B5 5W-30

Pure substance/mixture Mixture

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

Recommended Use lubricant

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 E-mail Address

1.4. Emergency telephone number

Korea + 82 2 3772-5655

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 Precautionary Statements

Prevention Not Classified

Response Not Classified

Storage Not Classified

Disposal Not Classified

2.4. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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 ~ 83.0
Mixed Performance Additive	-	-	10.0 ~ 15.0
Viscosity Modifier Additive	-	-	3.0 ~ 8.0
Polymer Esters of Methacrylic Acid and Mixed Mixed long chain Alcohols	-	-	< 0.5
Polymerized dimethyl silicone fluid	-		< 0.1

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.

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

Notes to physician Treat symptomatically.



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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 maybe highly dangerous if inhaled in confined spaces or at

high concentration.

5.3. Advice for fire-fighters

Other information

Special protective equipment for fire-

Wear self-contained breathing apparatus and protective suit.

fighters

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.

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



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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.

7.3. Specific end uses

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits oil mist: 10mg/m3, for 15 minutes; oil mist: 5mg/m3, 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.

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

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.

Eye Protection If splashes are likely to occur, wear:. Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

Hand Protection Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. Please observe the



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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 Characteristic

<u>Property</u> <u>Values</u> <u>Remarks</u> <u>Method</u>

pH Not applicable
Boiling point/boiling range Not applicable

Flash point No information available Cleveland Open Cup (COC)

@ 100 °C

Evaporation rate

Flammability Limits in Air

Vapor Pressure

Vapor density

No information available
No information available
No information available

Vapor densityNo information availableDensity856.2 kg/m3@ 15 °C

Water solubility Negligible Insoluble
Solubility in other solvents No information available

logPow
No information available
Autoignition temperature >250 °C

Viscosity, kinematic9.99 mm2/sExplosive propertiesNot explosiveOxidizing PropertiesNot applicablePossibility of hazardous reactionsNot 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.

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.



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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 . LD50 > 5000mg/kg (Rat, Oral), Practically non-toxic.

. LD50 > 5000mg/kg (Rabbit, Dermal), Practically non-toxic.

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Severely hydrogenated heavy paraffinic distillate	LD50 > 5000mg/kg(Rat)	LD50 > 5000mg/kg(Rabbit)	-
Mixed Performance Additive	LD50 > 2600mg/kg / LD50 > 5000mg/kg(Rat, OECD 401)	LD50 > 3160mg/kg(OECD 402) / LD50 > 2000mg/kg(Rat, OECD 402)	-
Viscosity Modifier Additive	LD50 > 5000mg/kg	LD50 > 5000mg/kg	LC50 > 50mg/L
Polymer Esters of Methacrylic Acid and Mixed Mixed long chain Alcohols	LD50 > 2000mg/kg(Rat)	LD50 > 2000mg/kg(Rabbit)	-

Sensitization

Sensitization Not classified as a sensitizer.

Specific effects

CarcinogenicityThis product is not classified carcinogenic.MutagenicityThis product is not classified as mutagenic.

Reproductive toxicityThis 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.



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish
Severely hydrogenated heavy paraffinic distillate	EC50 > 1000mg/L (96hr Scenedesmus subspicatus)	EC50 > 1000mg/L (48hr, Daphnia magna)	LC50 > 5000mg/L (96hr Oncorhynchus mykiss)
Mixed Performance Additive	EbC50 > 2.1mg/L (96hr Selenastrum capricornutum - OECD 201) / EbC50 > 100mg/L (72hr Desmodesmus subspicatus- OECD 201)	EC50 > 5.4mg/L (48hr, Daphnia magna - OECD 202) / EC50 > 100mg/L (48hr, Daphnia magna - OECD 202)	LC50 > 4.5mg/L (96hr Pimephales promelas - OECD 203) / LC50 > 100mg/L (96hr Danio rerio- OECD 203)
Viscosity Modifier Additive	-	-	LC50 > $100^{\text{mg}}/\ell$ (Acute)

Effects on terrestrial organisms

No information available.

12.2. Persistence and degradability

General Information

No information available.

12.3. Bioaccumulative potential

Product InformationNo information available.logPowNo information availableComponent InformationNo 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



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

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

15. REGULATORY INFORMATION

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

International Inventories

EINECS/ELINCS

TSCA

KECL

<u>Legend</u>

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

Further information

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

16. OTHER INFORMATION

Abbreviations, acronyms

Legend Section 8

+ Sensitizer * Skin designation

* Hazard Designation C: Carcinogen



S-OIL SEVEN GOLD #9 A5/B5 5W-30

Date of the previous version: 2019-06-19 Revision Date: 2019-06-19 Version 1

M: Mutagen R: Toxic to reproduction

Revision Date: 2019-06-19

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 theuser 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