

# Material Safety Data Sheet

Trade Name	SHL VP 100
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**Trade Name** SHL VP 100  
**General Characteristics** Petroleum hydrocarbon & additives  
**Hazard Classification** N/A  
**Application** Vacuum pump oil  
**Manufacturer's Name & Address**  
SHL CO., LTD.  
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Keumwoong BLDG, 5F 298 Jungdae-ro, Songpa-gu, Seoul, Korea  
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Factory  
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**Supplier's Name** SHL CO., LTD.  
**Department** Technical Institute

## 2. HAZARD IDENTIFICATION

### HAZARD CLASSIFICATION

N/A

### LABEL ELEMENTS

#### GHS Pictogram.

N/A

**Signal Words** N/A

#### Hazard statements

Not classified as a physical hazard under GHS criteria.

#### Precautionary statement

**Prevention** No data

#### Countermeasure

Not classified as a physical hazard under GHS criteria.

#### Storage

Not classified as a physical hazard under GHS criteria.

#### Disposal

Not classified as a physical hazard under GHS criteria.

### OTHER HAZARDS

#### NFPA Index

Hydrotreated heavy paraffinic distillate : Public health :0, Fire : 1, Reaction : 0

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical identity	Synonyms	CAS No.	Concentration (%)
Hydrotreated heavy paraffinic distillate	Mineral oil	64742-54-7	> 95
Secret	Secret	Secret	< 5

## 4. FIRST AID MEASURES

### DESCRIPTION OF FIRST AID MEASURES

#### Eye Contact

Flush eyes with plenty of water for at least 20 minutes.

Get immediate medical attention.

#### Skin Contact

Get medical attention.

Immediately remove contaminated clothing and shoes.

If eating or inhaling, do not mouth to mouth artificial respiration and use to proper respiratory medical equipment

#### Inhalation

If expose to ecessive fume, remove to clean air, get medical attention if any symptom like cough Get immediate medical attention if irritation, pain or other side effects occur.

If eating or inhaling, do not mouth to mouth artificial respiration and use to proper

respiratory medical equipment

#### **Ingestion**

Get immediate medical attention.

If eating or inhaling, do not mouth to mouth artificial respiration and use to proper

#### **Advice to Physician**

If exposed, call a medical center, take a special emergency measure

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

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### **EXTINGUISHING MEDIA**

**Suitable Extinguishing Media:** Dry chemical, carbon dioxide, water fog, normal foam

**Unsuitable Extinguishing Media :** Straight streams of water

### **HAZARDOUS SUBSTANCE CREATED DURING BURNING**

Smoke, Fume, Incomplete combustion products, Oxides of carbon & toxic gas

### **FIRE FIGHTING INSTRUCTIONS**

Evacuate area.

Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

Shut off all sources of fuel if possible, and use water to cool fire-exposed materials.

Use water to cool fire-exposed tanks, containers, and structures.

Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus(SCBA).

Use water spray to cool fire exposed surfaces and to protect personnel.

Use foam if exposed to heat or flame.

### **FLAMMABILITY PROPERTIES**

**Flash Point [Method]:** 246 °C (ASTM D93)

**Upper/Lower Flammable Limits (Approximate volume % in air):** No data

**Autoignition Temperature:** No data

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## **6. ACCIDENT RELEASE MEASURES**

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### **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

#### **Notification Procedures**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

#### **Protective Measures**

Avoid contact with spilled material.

Change contaminated clothes to new one.

Wear air respirator or ventilate the air in an airtight room.

Shut off source of exposure or remove source of fire.

In case of inadequate ventilation wear respiratory protection.

### **ENVIRONMENTAL PRECAUTIONS**

Prevent water pollution.

Do not directly expose the substance to nature.

Dispose the substance as wastewater to prevent water pollution.

If the area is polluted, eliminate the substance by using absorbent.

### **METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP**

Use sand or noninflammable absorber.

Collect exposed materials in a proper container to dispose them.

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## **7. HANDLING AND STORAGE**

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### **PRECAUTIONS FOR SAFE HANDLING**

Prevent skin contact, vapor inhalation, and eye contact.

Prevent small spills and leakage to avoid slip hazard.

Empty containers may retain product residue including flammable or explosive vapors.

Thus, do not work near empty containers.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

**Loading/Unloading Temperature :** Ambient

**Transport Temperature :** Ambient

**Transport Pressure :** Ambient

### **CONDITIONS FOR SAFE STORAGE**

Keep container closed. Handle containers with care.

Store the substance according to the current rules and regulations.

Store the substance in a cool and well-ventilated area.

Seal the storage container up and do not have a physical impact on the container.

**Storage Temperature:** Ambient

**Storage Pressure:** Ambient

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### OCCUPATIONAL EXPOSURE LIMIT

Secret - TWA 2mg/m<sup>3</sup> / 8hr (Ministry of Labor)

### ENGINEERING CONTROLS

Adequate ventilation in accordance with good engineering practice must be provided to keep any oil mist concentration below the PEL.

Check if the exposure is proper within the exposure criteria.

### PERSONAL PROTECTION

#### Respiratory Protection

Respirator is needed if this liquid is frequently used or excessively exposed.

If product is handled in such a way as to create a vapor or mist, approved respirator should be used to prevent overexposure. Use either a full-face, atmospheresupplying respirator or an air-purifying respirator for organic vapors.

Respirator shall be certified by Korea Occupational Safety & Health Agency.

#### Eye Protection

Wear chemical goggles to prevent eye contact from scattering materials or harmful liquids.

Install spray washing system for eyes near the work field.

#### Hand Protection

Wear chemical-resistant gloves.

#### Body Protection

Wear chemical-resistant protective clothing.

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## 9. PHYSICAL AND CHEMICAL INFORMATION

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<b>Appearance</b>	Light yellow clear
<b>Odor</b>	Slight hydrocarbon.
<b>pH</b>	N/A
<b>Melting Point</b>	-21 °C
<b>Boiling point</b>	No data
<b>Flash Point</b>	246 °C (ASTM D93)
<b>Oxidation</b>	Stable
<b>Flammability</b>	Flammability above Flash Point
<b>Explosion</b>	Stable
<b>Vapor Pressure</b>	No data
<b>Solubility In Water</b>	Negligible
<b>Vapor Density</b>	> 1 (Air=1)
<b>Specific Gravity</b>	0.86 (15/4 °C)
<b>Distribution Coefficient</b>	No data
<b>Autoignition Temp.</b>	No data
<b>Dissolution Temp.</b>	No data
<b>Viscosity</b>	106.7 cSt (40 °C)
<b>Molecular weight</b>	Not available

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## 10. STABILITY AND REACTIVITY

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### CHEMICAL STABILITY

Stable in normal temperature and pressure, and for normal usage

### POSSIBILITY OF HAZARDOUS REACTIONS

May be exploded, if reacting with strong oxidizers

### CONDITIONS & MATERIALS TO AVOID

All sources of ignition and excessive heat, and strong oxidants.

### HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition product. Toxic carbon compounds may be included (e.g. CO).

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## 11. TOXICOLOGICAL INFORMATION

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### URGENT RISK & HARMFULNESS INFORMATION

#### Eye Contact

May cause slight eye irritation.

#### Skin Contact

May cause slight skin irritation.

## TOXICOLOGICAL INFORMATION

### Acute Oral Toxicity

Hydrotreated heavy paraffinic distillate LD50 > 5000 mg/kg Rat

Secret LD50 > 5000 mg/kg Rat

### Acute Dermal Toxicity

Hydrotreated heavy paraffinic distillate LD50 > 5000 mg/kg Rabbit

Secret LD50 > 5000 mg/kg Rat

**Acute Inhalation Toxicity** LC50 5.0 mg/l 4 hr Rat (oil mist) - Hydrotreated heavy paraffinic distillate

**Dermal Irritability** Expected to be slightly irritating.

**Eye Irritability** No irritant

**Respiratory sensitivity** Not expected (Guinea pig)

**Skin sensitivity** Not expected to be a skin sensitiser.

**Subacute Toxicity** No data

**Repeated Dose Toxicity** Not expected to be a hazard

**Mutagenicity** Negative (Ames test) - Hydrotreated heavy paraffinic distillate

Negative (Ames test) - Secret

**Effect on Next Generation** Negative (Secret)

**Carcinogenicity** Not expected (OSHA, NTP, IARC)

**Aspiration** N/A

**ADDITIONAL ADVICE** N/A

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## 12. ECOLOGICAL INFORMATION

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### AQUATIC TOXICITY AND ECOTOXICITY

#### Chronic and Aquatic Toxicity

It is expected that this substance is not toxic to aquatic life.

**Fishes** EC50 > 0.61 mg/L (Daphnia magna) - Secret

**Crustacea** No data

**Algae** LC50 >= 0.57 mg/L, 96hr (Danio rerio) - Secret

### MOBILITY IN SOIL

Float on the water

### BIODEGRADABILITY

No data

**PERSISTENCE / DEGRADABILITY** : No data

**POSSIBILITY OF BIOACCUMULATION** : No data

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## 13. DISPOSAL CONSIDERATION

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### REGULATION OF WASTE MANAGEMENT ACT

Classified as specified wastes.

### WASTE DISPOSAL METHODS

Dispose in a legal self-disposal system or through waste disposal company.

### CAUTION FOR DISPOSAL

Follow the detailed criteria of Wastes Control Act.

### EMPTY CONTAINER WARNING

Empty containers may contain residue and can be dangerous.

Do not attempt to refill or clean containers without proper instructions.

Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed.

Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION.

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## 14. TRANSPORT INFORMATION

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### Classification and Regulation According to Ship Transportation and Storage Rule of Hazardous Material of Ship Safety Act

Not Regulated

### Caution during Transport

No data

### Classification and Regulation According to Rule of Foreign Transportation

Not Regulated for transport according to UN, IMDG, ADR/RID, IATA/ICAO codes

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**15. REGULATORY INFORMATION**

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**Chemical Control Act** N/A

**High-Pressure Gas Safety Control Act** N/A

**Act on Safety Management of Dangerous Goods**

The fourth class of petroleum of the fourth class of hazardous substance

**Regulation According to Foreign Laws**

USA : CERCLA 103(40CFR302.4) : N/A

SARA 302(40CFR355.30) :N/A

SARA 304(40CFR355.40) :N/A

SARA 313(40CFR372.65) : N/A

OSHA(29CFR1910.119) : N/A

TSCA : Listed

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**16. OTHER INFORMATION**

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**Source**

Material's data of our laboratories, Korea Occupational Safety & Health Agency and raw material supplier

**Written Date** 12-Jun-18

**Revision Count. Final Revision Date** Rev. No. : 0 12-Jun-18

**Other References**

The data and advice given apply when the product is sold for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. You should not use the product other than for the stated application or applications without seeking advice from us. If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.