

# Material Safety Data Sheet

Trade Name

SHL EDM 32

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**Trade Name** SHL EDM 32  
**General Characteristics** Petroleum hydrocarbon mixture  
**Hazard Classification** Irritation  
**Application** Electrical Discharge Machining 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  
56, Taejanggungdan-gil, Wonju-si, Kangwon-do, Korea  
TEL (+82-33) 734-5060 FAX (+82-33) 734-5034  
**Supplier's Name** SHL CO., LTD.  
**Department** Technical Institute

## 2. HAZARD IDENTIFICATION

### HAZARD CLASSIFICATION

Dermal Irritation. Category 2  
Eye Irritation. Category 2  
Aspiration toxicant. Category 1

### GHS Pictogram.



**Signal Words** Danger

### Hazard statements

H304: May be fatal if swallowed and enters airways  
H315: Causes skin irritation  
H319: Causes serious eye irritation

### Precautionary statements

#### Prevention

P233: Keep container tightly closed.  
P264: Wash your hands and body thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

#### Countermeasure

P314: Get medical advice/attention if you feel unwell.  
P331: Do NOT induce vomiting.  
P362: Take off contaminated clothing and wash before reuse.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P332+P313: If skin irritation occurs: Get medical advice/attention.  
P337+P313: If eye irritation persists: Get medical advice/attention.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

#### Storage

P405: Store locked up.

#### Disposal

P501: Dispose of contents/container according to the current rules and regulations.

### OTHER HAZARDS

#### Physical / Chemical Hazards:

Material can accumulate static charges which may cause an ignition.

#### Health Hazards:

May be irritating to the eyes, nose, throat, and lungs.  
Repeated exposure may cause skin dryness or cracking.

**NFPA Index** : Public health :1, Fire : 2, Reaction : 0

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical identity	Synonyms	CAS No.	Concentration (%)
Hydrotreated light distillate	Distillate (petroleum), hydrotreated	64742-47-8	≥ 99
Secret	Secret	Secret	< 1

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### 4. FIRST AID MEASURES

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#### Eye Contact

Flush thoroughly with water.  
If irritation occurs, get medical assistance.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
If the eye is bloodshot and the congestion maintains continuously, receive medical treatment.

#### Skin Contact

Wash contact areas with soap and water.  
Remove contaminated clothing.  
Launder contaminated clothing before reuse.  
If the irritation maintains on the skin continuously, receive medical treatment.

#### Inhalation

Remove from further exposure.  
For those providing assistance, avoid exposure to yourself or others.  
Use adequate respiratory protection.  
If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance.  
If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

#### Ingestion

Seek immediate medical attention.  
If irritation occurs, get medical assistance.  
Prevent vomiting. If vomiting occurs, keep head below hips to prevent obstruction of the airway.

#### MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Headache, dizziness, drowsiness, nausea and other CNS effects.  
Redness, dry cracking of skin.

#### INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis.  
Treat appropriately.

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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

#### FIRE FIGHTING INSTRUCTIONS

Evacuate area.  
Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.  
Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA).  
Shut off all sources of fuel if possible  
Use water spray to cool fire exposed surfaces and to protect personnel.

#### FIRE FIGHTING INSTRUCTIONS

**Flash Point [Method]:** 80 °C (ASTM D-93)

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

**Autoignition Temperature:** About 240°C

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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. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice.

See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the judgment of the emergency responders. For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H<sub>2</sub>S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

**ENVIRONMENTAL PRECAUTIONS**

**Large Spills:** Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

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

**Land Spill:** Stop leak if you can do so without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Recover by pumping or with suitable absorbent. **Water Spill:** Stop leak if you can do so without risk. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

**7. HANDLING AND STORAGE**

**PRECAUTIONS FOR SAFE HANDLING**

Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation.

**Loading/Unloading Temperature:** Ambient

**Transport Temperature:** Ambient

**Transport Pressure:** Ambient

**CONDITIONS FOR SAFE STORAGE**

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be earthed and bonded to prevent accumulation of static charge. 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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**OCCUPATIONAL EXPOSURE LIMIT**

Chemical identity	Exposure limit in korea	ACGIH control acts	Biological exposure limit
Hydrotreated light distillate	No data	TWA : 200 mg/m <sup>3</sup> (skin)	No data

**ENGINEERING CONTROLS**

Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment. Check if the exposure is proper within the exposure criteria.

**PERSONAL PROTECTION**

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection**

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

**Eye Protection**

Wear face shield that enables wearing two safety goggles, which protect from scattering materials or harmful liquids. Install spray washing system for eyes and emergency washing system in the shower

type 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>	Colorless liquid
<b>Odor</b>	Unique hydrocarbon odor
<b>pH</b>	N/A
<b>Melting Point</b>	< -30 °C
<b>Boiling point</b>	200 ~ 260 °C
<b>Flash Point</b>	80 °C (ASTM D93)
<b>Oxidation</b>	Stable
<b>Flammability</b>	Flammable over Flash Point
<b>Explosion</b>	Stable
<b>Vapor Pressure</b>	Below than 0.5 mmHg at 20°C
<b>Solubility In Water</b>	Insoluble in water
<b>Vapor Density</b>	> 1 (Air=1)
<b>Specific Gravity</b>	0.805 (15/4°C)
<b>Distribution Coefficient</b>	No data
<b>Autoignition Temp.</b>	About 240°C
<b>Dissolution Temp.</b>	No data
<b>Viscosity</b>	1.95 cSt (40°C)
<b>Molecular weight</b>	No data

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### **10. STABILITY AND REACTIVITY**

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#### **CHEMICAL STABILITY**

Material is stable under normal conditions. Material does not decompose at ambient temperatures.

#### **POSSIBILITY OF HAZARDOUS REACTIONS**

Not expected.

#### **CONDITIONS & MATERIALS TO AVOID**

Open flames and high energy ignition sources.

#### **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**

##### **Inhalation**

Inhalation of vapors may cause irritation of the respiratory tract and the eyes, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects.

##### **Eye Contact**

May cause irritation.

##### **Skin Contact**

May cause slight irritation. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.

##### **Ingestion**

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

#### **TOXICOLOGICAL INFORMATION**

<b>Acute Oral Toxicity</b>	LD50 > 5000 mg/kg Rat
<b>Acute Dermal Toxicity</b>	LD50 > 2000 mg/kg Rabbit
<b>Acute Inhalation Toxicity</b>	LC50 > 3 mg/l 4 hr Rat (mist)
<b>Dermal Irritability</b>	Irritant
<b>Eye Irritability</b>	Irritant
<b>Respiratory Sensitization</b>	Not expected to be a respiratory sensitizer.
<b>Skin Sensitization</b>	Not expected to be a skin sensitizer.
<b>Subacute Toxicity</b>	No data
<b>Repeated Dose Toxicity</b>	No data
<b>Mutagenicity</b>	Not expected to be a germ cell mutagen.

<b>Effect on Next Generation</b>	Not expected to be a reproductive toxicant. Based on test data for
<b>Carcinogenicity</b>	Not expected to cause cancer.
<b>Aspiration</b>	May be fatal if swallowed and enters airways.
<b>Additional Advice</b>	Repeated exposure may decrease the fat of skin and result in dermatitis.

## 12. ECOLOGICAL INFORMATION

### AQUATIC TOXICITY AND ECOTOXICITY

#### Chronic and Aquatic Toxicity

It is expected that this substance is not toxic to fish, invertebrates, algae and microorganisms within the range of water soluble

#### MOBILITY IN SOIL

Low solubility and floats and is expected to migrate from water to the land.

#### BIODEGRADABILITY

Not expected to be readily biodegradable.

#### POSSIBILITY OF BIOACCUMULATION : No data

## 13. DISPOSAL CONSIDERATION

### 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.

### 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.

## 14. TRANSPORT INFORMATION

### 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 Transportation

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

## 15. REGULATORY INFORMATION

**Toxic Substance Control Act** N/A

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

**Wastes Control Act** Classified as specified wastes.

### Act on Safety Management of Dangerous Goods

The third class of petroleum of the fourth class of hazardous substance in Korea

#### Regulation According to Foreign Laws

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

OSHA(29CFR1910.119) : 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

EU : Classification information : Xn

Risk Phrases : R65 Harmful: may cause lung damage if swallowed.

Safety Phrases : S2 Keep out of the reach of children.

S23 Do not breathe gas/fumes/vapour/spray

S24 Avoid contact with the skin.

S62 If swallowed, do not induce vomiting: seek medical advice immediately and

show this container or label.

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## 16. OTHER INFORMATION

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### Source

Material's data of our laboratories and Korea Occupational Safety & Health Agency

**Written Date** 23-Feb-99

**Revision Count. Final Revision Date** Rev.# 9 23-Apr-15

### Other References

The information and recommendations contained herein are, to the best of our's knowledge and belief, accurate and reliable as of the date issued. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. 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.