



Material Safety Data Sheet(MSDS)

HFV- ZS special oil

One • Identification of the chemical and supplier

Product Name: HFV-ZS special oil

Cat No:

Classification of chemicals: A mixture of organic compounds

Product usage recommendations and usage restrictions: lubricant

Name of manufacturer or supplier: Shanghai Huifeng Petroleum & Chemical Co.,Ltd.

Address: No. 1, lane 75, panyu road, Shanghai

Post code: 200052

Telephone number: 4009217600

Fax number: 86-21-62105356

The url: <http://www.hflube.com>

E-mail address: hfsh@hflube.com

Emergency number/fax number: 86-21-62117373

Two • Hazards identification

Hazard classification according to GHS

Label elements

symbol

unsigned

The warning word

No warning word

Hazard statements

Physical hazards: According to the GHS standard, it is not classified as hazardous substance.

Health hazards: According to the GHS standard, it is not classified as a health hazard.

Environmental hazards: According to the GHS standard, it is not classified as an environmental hazardous substance. There may be long-term adverse effects on the water and its environment.

Instructions on GHS preventive measures

Preventive measures

No words of precaution

Incident response

No words of precaution



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Safe storage	No words of precaution
Waste disposal	No words of precaution
Other hazards of classification are not affected	Not rated flammable, but it can burn.
Overview of major symptoms and emergencies	There is no strong evidence that the product causes cancer, according to animal tests. Usually, this product is not harmful to health. Excessive contact may irritate eyes, skin, breath, etc. Improper Cleaning may block skin pores and lead to oily acne, folliculitis and other diseases. The used oil may contain harmful impurities.

Three • Composition/information on ingredients

Formula	The product is a mixture consisting mainly of highly refined mineral oil and petroleum additives specially treated.		
Chemical name	CAS No.	EC No.	Concentration (weight percent, %)
Refined mineral base oil	mixture	---	> 98
Petroleum additive	trade secrets	---	<2

Four • First aid measures

Different methods of first aid exposure: When used under normal conditions, it should not be a health hazard.

Inhalation: First aid is not required. Remove the source of pollution. If dizziness occurs, we move the patient to fresh air and seek medical advice.

Skin contact : 1. First aid is not required. Do not touch the object directly and wear protective gloves as far as possible;
2. Remove contaminated clothing and get the part of the heuristic clean with fat Bi, water after cleaning.
3. Wash clothes and shoes thoroughly before reuse.
4. If the product is injected subcutaneously under high pressure equipment, please seek medical advice immediately.

Eye contact: 1. Open the eyelid immediately to ease the flow of warm water to flush the contaminated eyes for 5



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minutes or until the complete removal of contaminants;

2. Seek medical attention when necessary.

Ingestion : Medical first aid is generally not required unless large quantities are swallowed. As a precautionary measure, we suggest to seek medical.

The doctor instructions: Long-term inhalation of oil mist or steam under high temperature, it may lead to respiratory organ inflammation; long-term or repeated skin contact may lead to irritation or skin inflammation; eye contact may cause slight irritation to the eyes; massive ingestion may cause gastrointestinal inflammation, vomiting and diarrhea.

Five • Firefighting measures

Particular risk	This product is greater than 200 °C, flash point does not belong to dangerous goods. High heat, flame and strong oxidant are easy to cause combustion.
Extinguishing method and extinguishing agent	Foam fire extinguishers, carbon dioxide fire extinguishers, dry powder fire extinguishers. Sandy soil is only suitable for small fires.
Harmful substances produced by combustion	Incomplete combustion produces smoke, carbon monoxide, carbon dioxide, sulfur oxides, aldehydes, nitrogen oxides, phosphates, certain metal oxides, and other decomposition components
Prohibited fire extinguishers	Do not spray water
Special protective equipment for fire personnel	Breathing devices must be worn when approaching the point of fire in confined space.

Six • Accidental release measures

Avoid contact with spilled or released material. For personal protection, see item 8 of this manual. For information on disposal, see item 13 of the safety technical specification. Please comply with all applicable local or national regulations.

Emergency procedure. Cut off the fire. Cut off the source as much as possible. To prevent the inflow of restricted Spaces such as sewers, drain channels and water bodies. Follow the relevant fire safety procedures and refer to item 8 of the safety technical specification.

Environmental protection measures. Before the operators arrive at the site, the overflow material should be restricted as much as possible. A small amount of leakage is collected by using wood chips, sand, soil or other adsorbent and placed in a sealed, leakproof container for disposal; For large spills, build a wall or dig a pit to collect, ensuring it does not flow into sewers, rivers, water sources and lowlands. The spillage is handled in



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an appropriate container. Report any contamination of soil or plants to the relevant authorities. Refer to chapter 13 of the safety technical specification for waste disposal.

Elimination method. A large amount of leakage is pumped into the container with a vacuum pump, and a small amount of leakage can be prevented from spreading by sawdust, sand, soil, oil absorbent or other absorbent and treated in the sealed container. Land leakage, take protective measures to cut off the source of pollution, reduce the surface water pollution to the minimum. Leak in waterways, immediately use containment lines to stop lost oil, warn nearby vessels, and use appropriate dispersants if necessary. Serious spills that cannot be handled should be reported to local authorities.

Seven • Handling and storage

Handling

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| General precautions | Please Avoid prolonged or repeated contact with the skin and rinse thoroughly after contact. If there is a risk of inhaling steam, spray or smoke, use a local exhaust ventilation. Handle with care to prevent damage to packaging and containers. |
| Safety precautions | Operators must be specially trained to strictly follow the operation rules. Avoid contact with oxidants. Equipped with a corresponding number of fire equipment and emergency leakage treatment equipment. Wear protective shoes when loading and unloading 200 liters of products. An empty container may contain harmful residue. |

Storage

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| Storage conditions | Keep containers sealed and not stored in open or unlabeled containers. Storage conditions should be cool, dry and ventilated, away from strong oxidizer, fire, heat source and combustible. Room temperature storage. Empty vessels may remain some products, do not cut, welding, not exposed to high temperature, flame. |
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Eight • Exposure controls/personal protection



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Permissible concentration (ACGIH, USA)

Maximum permissible concentration					
material	provis ions	Exposure duration	Contact/exposu re limits	unit	annotat ion
Mineral oil mist	ACGIH	TWA	5	mg/m ³	
	ACGIH	STEL	10	mg/m ³	

Engineering controls: Providing exhaust ventilation or other engineering controls to ensure the concentration of the relevant substances in the air is below the standards.

Personal protection equipment: Personal protective equipment (PPE) should meet the recommended national standards, please check with PPE suppliers.

Respiratory protection: Under normal circumstances, respiratory protective gear is generally not required. When steam is generated, qualified respiratory protective equipment is required if the engineering control facility fails to maintain the air concentration at a level sufficient to protect human health. If you need to wear the safety filter mask, please select the appropriate combination of mask and filter. Choose a suitable for particle/organic gases and vapors [boiling point > 65 ° C (149 ° F)] a mixture of filter.

Eye protection: If spillage is possible, wear safety goggles, goggles or full face covers.

Hand protection : Rubber, polyvinyl alcohol, chlorinated elastomer, chlorinated elastomer, chlorinated polyethylene, chloroprene, polyvinyl chloride, polyurethane, etc.

Skin and body protection: In general, no special skin protection measures are required except for ordinary work clothes. When special circumstances, can wear rubber, polyvinyl alcohol, fluorinated elastomer, chlorinated elastomer, chlorinated polyethylene, chloroprene, polyvinyl chloride, polyurethane and other materials made of the body type protective clothing, work boots.

Health measures:

1. Remove contaminated clothing or work clothes and wash them before they are wearable or discarded.
2. After handling this substance, we should wash hands and face, and apply skin protective ointment.
3. Smoking or eating is strictly prohibited in the workplace and the workplace should be kept clean.

Nine • Physical and chemical properties

Appearance: Liquid at room temperature

Odor: properties of mineral oil

Color: colorless and transparent

Decomposition temperature: No data

Explosion limit: No data

Solubility: insoluble in water



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Flash point (open) : $\geq 215^{\circ}\text{C}$

Pour point: -30°C

Kinematic viscosity (40 $^{\circ}\text{C}$): 41.4~50.6mm²/s

Ten • Stability and reactivity

Stability: Stability

Possibility of hazardous reactions: Contact with a strong oxidizer

Conditions to avoid: Strong oxidizer, moisture, heat, flame source, extreme temperature and direct sunlight;

decomposition products: Carbon dioxide or carbon monoxide and water, under normal circumstances, do not form harmful decomposition.

Harm polymerization: inapplicability

Other information: Nothing

Eleven • Toxicological information

Evaluation basis: The information provided is based on the component and toxicity data of similar products.

Acute toxicity: Acute oral toxicity

hypotoxicity: LD50 > 5000 mg/kg

Acute toxicity of skin

hypotoxicity: LD50 > 5000 mg/kg

Respiratory acute toxicit

No risk of inhalation is considered under normal service conditions.

Skin corrosion/irritation : Mild irritation is expected. Prolonged or continuous contact with the skin without proper cleansing ,that may clog skin pores and lead to conditions such as oily acne/follitis.

eye damage/irritation: Mild irritation is expected.

Respiratory or skin sensitization: Inhaling steam or powder mist may cause irritation.

Germ cell mutagenicity: No danger of mutagenesis.

Carcinogenicity: unknown.

Reproductive toxicity: It should not be hazardous material.

Aspiration hazard: Causing discomfort in the digestive system

Note: The used oil contains harmful impurities accumulated during use. The concentration of these harmful impurities depends on the use and may pose risks to health and the environment. All used oils should be handled with care and avoided touching the skin as much as possible.

Twelve • Ecological information

There is no specific ecotoxicological data for this product. The information provided below is based on an



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understanding of the composition and ecotoxicology of similar products.

Acute toxicity: Poor solubility of mixtures may cause the sordid odor of aquatic organisms. Expected actual nontoxic: LL/EL/IL50 >100 mg/L (for aquatic organisms)

liquidity / Mobility in soil: It is liquid under most environmental conditions. Float on the water. If it enters the soil, it will be absorbed by the soil particles and will not flow.

Persistence/degradation: Biodegrade is not expected to easily. The main components are expected to have inherent biodegradability, but the product also contains components that may persist in the environment.

Biological accumulation: a potential component containing biological accumulation.

Other adverse reactions: The product is a mixture of non-volatile components and is not expected to be released into the air in large quantities. No possibility of ozone depletion, photochemical ozone formation or global warming is anticipated.

Thirteen • Disposal considerations

Chemical disposal: Recycle or recycle as much as possible. It is the responsibility of waste producers to identify the toxicity and physical characteristics of the materials produced in order to develop appropriate waste classification and disposal methods in accordance with the relevant regulations. The waste oil shall be disposed of by the designated waste oil treatment organization, and shall not be disposed of in the environment, drains or watercourses.

Disposal of containers: As far as possible, the disposal of containers shall be carried out by approved waste collectors or contractors in accordance with the regulations in force.

Local laws: Disposal methods should comply with appropriate local, national and local laws and regulations.

Fourteen • Transport information

Under the regulations of ADR, IMDG and IATA, this product was not rated as hazardous.

General means of delivery: railway tanker, tanker, tanker, barge, barrel.

Transport temperature: room temperature

Loading and unloading temperature: room temperature

Fifteen • Regulatory information

Please comply with local government laws and regulations on chemical health and safety. There is no division under GB13690.

Other information: GB 6944-2012: Classification and item number of dangerous goods
GB/T 16483-2008: Contents and sequence of chemical safety technical specification
GB 13690-2009 General rules for classification and risk of chemicals
GB 12268-2012: List of dangerous goods
GBZ 2.1-2007: Workplace hazards occupational exposure limits chemical hazards



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Sixteen • Others

This product is only used for recommendation applications, if there are other applications, please contact the manufacturer.

This information is prepared in accordance with current knowledge and it is intended only to describe the product in terms of health, safety and environmental regulations. This information is not a guarantee of the product's physical ability.