



Material Safety Data Sheet

KunLun KI25X Transformer Oil

Version: A1

Release Date: January 1st, 2017

Section 1 Product and Company Identification

Product Name: KI25X transformer oil IEC60296-2003 (General specifications)

Product Type: Electrical Insulating Oil

Trade Name: KunLun KI25X Transformer Oil

Recommended Use: Transformers, switchgear and similar electrical equipment in which oil is required as an insulating and for heat transfer.

Service Call: 400-810-3000 800-810-3001

Website: <http://www.kunlunlube.com.cn>

Manufacturer: PetroChina Lubricant Company

Address: 17/F Building A, PetroChina KunLun Plaza, No.8 Taiyanggong Jinxingyuan, Chaoyang District Beijing, China

Fax: 0086-10-63592290

Emergency Call: 0086-10-62095168

Section 2 Composition/Information of Ingredient

This product is mixture of hydrotreating light naphthenic-base fraction and the additive, the composition content is listed by weight

Generic Composition: Severe treat min. oils & additives

Ingredient	Value(%)	CAS No.
Distillates (petroleum), solvent-refined light naphthenic	80-70	64741-97-5
Hydrotreated Light Paraffinic-base Distillates	20-30	64742-55-8

Section 3 Hazards Identification

This Product is Class B Combustible Liquid according to National Standard "Fire Prevention Code of Petro-Chemical Enterprise Design".

This product is not classified as dangerous goods according to "List of Dangerous Goods" (GB12268), The product does not exist the unpredictable risk under normal condition of use.

Physical / chemical hazard class: Not classified as hazardous waste.

Health risk categories: no significant hazards.

Health hazards: This product may generate oil mist to cause skin and eye irritation, excessive exposure to liquid and oil mist may cause respiratory irritation and damage, and aggravate existing asthma and other respiratory diseases. The inadvertent large amounts are ingested severe damage to the digestive system; it is timely to take rescue measures.

Environmental Hazards: Be harmful to the environment, should prevent the pollution of soil, water.

Section 4 First Aid measures

Inhalation: Rapidly take away to fresh air, keep ventilation. Seeking immediate medical assistance if dizziness, nausea or unconsciousness.

Ingestion: Induce vomiting by drinking enough water, a large number of swallow should be immediately sent to hospital for treatment to induce vomiting or other rescue measures under the guidance of a physician.

Eye Contact: Immediately open the upper and lower eyelids, Flush thoroughly with water and physiological saline. If irritation occurs, get medical assistance.

Skin Contact: Remove contaminated clothing and shoes. Wash with soap and water. Handle with care and dispose of in a safe manner. Seek medical attention if skin irritation, swelling or redness develops and persists.

Section 5 Fire Fight Measures

Risk Characteristics: Flash Point $> 135^{\circ}\text{C}$, can cause combustion by fire, high temperature or oxidant.

Hazardous Combustion Products: CO/CO₂/Sulfide/ Suspended Solid Particles and Complex Combustion Mixture

Fire Fighting Instructions: Firefighters are required to wear gas masks and firefighting suits, Put out fire downwind. Take containers away from the scene to empty Department. Evacuate immediately when color change of containers or sound from the pressure relief safety devices.

Extinguishing Media: Dry chemical, carbon dioxide (CO₂), foam or sand. Do not use a direct stream of water.

Section 6 Accidental Release Measures

Emergency Treatment: When a leak is discovered, immediately cut off the source of fire, isolate combustible. After risk assessment, organize contaminated areas personnel to a safe area if necessary. Must wear personal safety protection equipment when cleaning leakage and should pay attention to prevent secondary disasters such as personal injury and environmental pollution during emergency rescue.

A small leak: collecting leaking liquid in a sealed containers much as possible, use sand, activated carbon or other inert materials to absorb the residue. Can also use non-flammable dispersant is made of latex to wash, lotion needs harmless disposal.

Large Leak: briefing to the relevant departments according to the degree of risk. Build a causeway or trenching asylum. Transferred to a sealed container with a pump and recycling or shipped to waste disposal sites.

Section 7 Handling and Storage

Handling Precautions: comply with the fire safety design specification requirements when using this product and avoid excessive oil mist generated during the operation. The operator should be subject to fire safety training, equipped with the necessary labor protective equipment to avoid inhalation of oil mist, eliminate leakage of production and operating



equipment and avoid slipping.

Storage Note: This product should be sealed storage, stored in a cool, dry, ventilated place, away from open flames and high temperature heat, strong oxidants and flammable materials, to avoid mixing with water and impurities and other foreign matter. The storage area should be equipped with the necessary fire equipment, leakage processing equipment. Empty containers may still remain product, avoid heating, cutting, welding.

Section 8 Exposure Control/Personal Protection

Exposure limits: When oil mists and smoke can occur, the following standards are recommended: 3 mg/m³15min - AFS (Sweden, 6/2005) STEL, 1 mg/m³8h - TWA.

Recommended Monitoring Procedures: If the components of the product have exposure limits, it needs to have air or biological monitoring for personal and workplace to determine the effectiveness of ventilation facilities, or take other control measures, or to use necessary respiratory protective devices. It should refer to EU EN689 assessment method standard about inhalation of chemical reagents and national guidance documents on the detection of harmful substances.

Profession Exposure Control: Forced ventilation and local exhaust can reduce the exposure concentration in the air. The operating device uses oil-resistant material. Store under the

recommended conditions. If heating, temperature control device should be used to avoid overheating.

Health Measures: Operating in accordance with the industrial hygiene and safety measures.

Respiratory Protection: If the product needs manually heating, it should choose to wear A1P2 or A2P2 filter respirator. Automatic production line with good ventilation does not need to wear a respirator.

Hand Protection: Wear suitable oil-resistant protective gloves made by Nitrile rubber or high quality PVC.

Eye Protection: If contact is likely, safety glasses should be worn.

Skin and Body Protection: Wear protective clothing if there is a risk of skin contact and change them frequently, or when contaminated.

Section 9 Physical and Chemical Properties

Items	Typical Data
Form	Viscous Liquid
Color	<0.5
Odor	Odorless
Pour Point	-35°C
Density, 20°C	886kg/m ³
Flash Point, Close	143°C
Solubility in Water	Non soluble
Solubility in Organic Solutions	Soluble
Viscosity, 40°C	10.3mm ² /s
DMSO Extraction (IP346)	<3%



Section 10 Stability and Reactivity

Stability: Stable at normal conditions

Avoid: Excessive highly oxidizing agents.

Avoid condition: Open flame, high heat resource

Hazardous Decomposition Products: Material does not decompose at ambient temperatures.

Hazardous Reaction Potential: Polymerization will not occur

Section 11 Toxicological Information

Potential Acute Health

Hazards Acute toxicity: Lower

Ingestion: May induce nausea and even vomiting and diarrhea.

Inhalation: Inhalation of oil mist or vapor produced under high temperature may cause irritation to the respiratory tract.

Skin contact: Prolonged or repeated exposure may lead to skin dryness or cracking.

Eye contact: May cause redness and transient pain.

Potential Chronic Health Hazards

Chronic Effects: Inhalation of oil mist or vapor produced under high temperature may cause irritation to the respiratory tract.

Section 12 Ecological Information

Ecotoxicity: Not expected to be harmful to aquatic organisms, but potential bioaccumulate may cause ecotoxicity.

Mobility: Non-volatilized liquid, no oil mist pollution to air; Low solubility and floats and is expected to migrate from water to the land. It will be absorbed by the soil particles and can not flow when entering into the soil.

Persistence/degradability: The base oil is expected to be inherently biodegradable with potential bioaccumulation.

Section 13 Disposal Consideration

Disposal Recommendations: Waste Mineral Oils listed in HW08 of "National Catalogue of Hazardous Wastes"

Regulatory Disposal Information: Comply with local laws and regulations. If possible, should be entrusted with the appropriate qualified hazardous waste disposal agency for product recycling. Recommended as a boiler fuel under controlled conditions and monitor the emission gases harmful substances of high-temperature combustion. Airtight container stored and the necessary identification when temporary saves.

Section 14 Transportation Information

"List of Dangerous Goods"(GB12268): The product is not classified as 9 categories of hazardous goods

China / international transport regulations: Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport

AIR (IATA): Not Regulated for Air Transport

Section 15 Regulatory Information

According to principles of hazardous substances and preparations classification in China and Europe, it is not regarded as hazardous goods. No legal identification is required.

Comply with the chemicals directory requirements of the following countries and regions: IECSC (China), DSL (Canada), EINECS (EU), on ENCS (Japan), KECI (Korea), PICCS (Philippines), TSCA (United States) and AICS (Australia).

Section 16 Other Information

This material safety data sheet is based on current knowledge and applicable laws and regulations, the description of the product from the health, safety and environmental requirements, having possibility of amendments to update existing reference standards and testing data.

The data and recommendations provided by the material Safety Data Sheet are only apply to this product. In addition to the prescribed use, China Petroleum oil company will not be held responsible due to failure to follow recommended any damage or injury caused by the views. Users can get additional information by the sales department and technical service department.