# Material Safety Data Sheet (MSDS)

## Section 1: Chemical and Company Identification

Chinese Name: API SQ/ILSAC GF-7A（Esters+Full Synthetic）0W-20 Engine oil

English Name: API SQ/ILSAC GF-7A（Esters+Full Synthetic）0W-20 Engine oil

Manufacturer Name: Shandong Ribang New Energy Technology Co., Ltd.

Address: No. 777-3, Yuxing Road, Tianqiao District, Jinan City, Shandong Province

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Product Recommendations and Restricted Applications: It is a fully synthetic automotive engine oil suitable for China VI b emission-compliant gasoline engine systems equipped with GPF (Gasoline Particulate Filter), featuring low ash content, shear resistance and good fuel economy, and performing the functions of lubrication, cooling, sealing and rust prevention.

## Section2: Hazard Overview

Hazard Category: Not classified under GB13690 criteria

Health Hazards: No specific hazards under normal use conditions. Prolonged or repeated exposure may cause dermatitis. Used oil may contain harmful impurities.

Symptoms and Signs: Under normal use, no serious effects are anticipated.

Environmental Hazards: Not classified as environmentally hazardous.

Fire Hazard: Not classified as flammable, but will burn.

## Section3: Ingredient/Composition Information

It is a mixture composed of highly refined synthetic base oils and additives, including anti-wear agents, detergents, dispersants, antioxidants, pour point depressants and viscosity index improvers.

| Chemical Composition | CAS Number | Weight (%) |
|---|---|---|
| Distillate oil, petroleum, heavy paraffinic distillate, solvent-dewaxed, hydrotreated (contains PAO) | 64742-54-7, 68037-01-4 | ≦75-90 |
| Additive package | Trade secret | ≦15 |
| Pour point depressant | No data | ≦0. 5 |

## Section 4: First Aid Measures

General Information: Under normal conditions of use, this product should not pose a health hazard.

Inhalation: Dizziness or nausea are unlikely. If they occur, move the affected person to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Remove contaminated clothing, including footwear. Rinse exposed areas with running water and wash with soap. If irritation persists, seek medical attention. When using high-pressure equipment, there is a risk of subcutaneous injection. If this occurs, seek immediate medical attention without delay to prevent worsening symptoms.

Eye Contact: Immediately lift upper and lower eyelids and thoroughly flush eyes with running water. Seek medical attention if irritation persists.

Ingestion: Rinse mouth with water and seek medical attention. Do not induce vomiting.

Medical Advice: Treat symptomatically. Inhalation into the lungs may cause chemical pneumonia. Prolonged or repeated exposure may cause dermatitis. High-pressure injection injuries require immediate surgical intervention or steroid treatment to minimize tissue damage and functional loss.

## Section 5: Firefighting Measures

Evacuate all non-emergency personnel from the fire area.

Hazardous Properties: Flammable in contact with open flames or high heat.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, and unspecified organic and inorganic compounds.

Firefighting Methods: Move containers away from the fire to an open area if possible. Spray water to cool containers in the fire area until extinguishing is complete. Immediately evacuate if containers in the fire area change color or emit sounds from safety relief devices. Use foam, dry powder, or carbon dioxide extinguishers. Sand or earth may be used only for small fires.

Firefighting Precautions: Firefighters must wear full-body fire-resistant and toxic-gas protective suits and operate from the upwind position. When approaching the fire source in confined spaces, breathing apparatus must be worn.

## Section 6: Leak Emergency Response

Emergency Action: Immediately evacuate personnel from the contaminated area to a safe zone. Isolate the area and strictly restrict access. Eliminate all ignition sources. Emergency responders should wear self-contained positive-pressure breathing apparatus and anti-static work clothing. Attempt to shut off the leak source. Prevent entry into sewers, storm drains, or confined spaces. If containment is impossible, notify local government authorities. Small Leaks: Absorb with sand, vermiculite, or other inert materials.Large Leak: Construct containment dikes or dig pits. Cover with foam to reduce vapor hazards. Transfer using explosion-proof pumps to tank trucks or specialized collectors for recycling or disposal at waste treatment facilities.

## Section 7: Handling, Processing, and Storage

Precautions for Handling and Use: Operate in a closed system with full ventilation. Operators must be specially trained and strictly follow operating procedures. Operators are advised to wear antistatic work clothing and oil-resistant rubber gloves. Keep away from sources of ignition and heat; smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Prevent vapors from escaping into the workplace air. Avoid contact with oxidizing agents. Control flow rates during loading and unloading, and ensure grounding is in place to prevent static electricity buildup. Handle with care to prevent damage to packaging and containers. Provide appropriate types and quantities of firefighting equipment and emergency spill response equipment. Empty containers may contain residual hazardous substances.

Storage Precautions: Store in a cool, well-ventilated warehouse. Keep away from sources of ignition and heat. Keep containers tightly sealed. Store separately from oxidizing agents; do not store together. Use explosion-proof lighting and ventilation equipment. Do not use machinery or tools that may generate sparks. The storage area should be equipped with emergency leak response equipment and suitable containment materials.

Recommended materials: For containers or inner liners, use mild steel or high-density polyethylene.

Inappropriate materials: For containers or inner liners, avoid using polyvinyl chloride (PVC).

## Section 8: Exposure Controls/Personal Protection

Maximum Allowable Concentration:

Oil mist, mineral oil MAC ($mg/m^3$): -

TLV-TWA ($mg/m^3$): 5
TLV-STEL ($mg/m^3$): 10
Exposure Controls: The required level of protection and type of control measures vary depending on potential exposure conditions. Control measures should be selected based on a risk assessment of local conditions. Appropriate measures include: Adequate ventilation sufficient to control gas concentrations.

This product is more likely to accumulate in the air when heated, sprayed, or atomized.

Respiratory Protection: Under normal conditions of use, respiratory protection is generally not required. If oil mist cannot be controlled, wear a safety respirator. Select a filter cartridge suitable for particulate/organic gas and vapor mixtures.

Eye Protection: Special protection is generally not required. If splashes are possible, wear chemical safety goggles or a face shield.

Body Protection: Generally, no special skin protection measures are required beyond standard work clothing.

Hand Protection: Wear oil-resistant rubber gloves.

Other precautions: Smoking is strictly prohibited in the work area. Avoid prolonged or repeated exposure.

Environmental Exposure Controls: Minimize emissions to the environment. Conduct environmental assessments to ensure compliance with local environmental regulations.

## Section 9: Physical and Chemical Properties

Appearance and Physical State: Light yellow, liquid at room temperature.

Odor: Characteristic of mineral oil.

| | |
|---|---|
| pH: No data available | Melting Point (°C): No data available |
| Relative Density (Water = 1): <1 | Boiling point (°C): No data |
| Relative vapor density (air = 1): >1 (estimated) | Octanol/water partition coefficient: No data |
| Flash point (°C) Open cup: >200°C | Upper/lower flammability limits: No data |
| Autoignition temperature: No data | Decomposition temperature: No data |
| Solubility: Negligible. | Kinematic Viscosity (Typical Value) (100°C): 8.52 cSt |

## Section 10: Stability and Reactivity

Stability: Stable.

Materials to Avoid: Strong oxidizing agents, flammable or combustible materials, organic substances.

Conditions to Avoid: Extreme temperatures and direct sunlight.

Hazardous polymers: Not applicable.

Hazardous Chemical Decomposition: Under normal storage conditions, no hazardous decomposition products are formed.

## Section 11: Toxicological Information

Acute Toxicity:

Oral Acute Toxicity: Low toxicity expected: LD50 > 5000 mg/kg

Acute dermal toxicity: Low toxicity expected: LD50 > 5000 mg/kg

Acute Inhalation Toxicity: No inhalation hazard is expected under normal conditions of use.

Skin Irritation or Corrosion: Mild irritation is expected. Prolonged or repeated skin contact without proper cleansing may clog pores, potentially leading to conditions such as sebaceous acne/folliculitis.

Eye irritation or corrosion: Expected to cause mild irritation.

Respiratory or eye sensitization: Inhalation of vapors or mists may cause irritation.

Germ cell mutagenicity: Not considered mutagenic.

Carcinogenicity: Human carcinogenicity is not yet known.

Reproductive toxicity: Not expected to be a harmful substance.

Inhalation hazards: Inhalation of vapors or mists may cause irritation.

Additional Information: Used oil contains harmful impurities accumulated during use and may pose risks to health and the environment during disposal. All used oil should be handled with care, and skin contact should be avoided whenever possible.

## Section 12: Ecological Information

Acute Toxicity: Poorly soluble mixture. May cause foul odors in aquatic organisms.

Mobility/Migration in Soil: Liquid under most conditions. Floats on water surfaces; if entering soil, will be absorbed by soil particles and become immobile.

Persistence/Degradability: Not readily biodegradable. Primary components are inherently biodegradable, but contains residual components that may persist in the environment.

Bioaccumulation: Contains components with bioaccumulation potential.

## Section 13: Disposal

Waste Characteristics: Waste mineral oil.

Chemical Product Disposal: Recycle or reuse whenever possible. Identify the toxicity and physical properties of the material generated to develop appropriate handling procedures. Do not dispose of in the environment, drains, or sewers.

Container Disposal: Dispose of containers in accordance with current regulations, preferably through an authorized waste collector or contractor.

Local Regulations: Disposal methods must comply with national laws and local regulations.

## Section 14:Transport Information

UN Classification: Not classified as dangerous goods.

Modes of Transport: The applicable rules for the transport of goods must be followed for rail, road, air, sea, and inland waterway transport.

Transportation Precautions: Before transport, inspect packaging containers to ensure they are intact and sealed. During transport, ensure containers do not leak, collapse, fall, or become damaged. Strictly prohibited from being mixed or transported together

with oxidizers, food-grade chemicals, etc. Transport vehicles and vessels must be thoroughly cleaned and disinfected; otherwise, they must not be used to transport other goods. Keep away from high temperatures and sources of ignition during loading. Follow designated routes.

## Section 15:Regulatory Information

China: GB 30000 (GHS), GB 15258,

Regulations on the Safe Management of Hazardous Chemicals.

Other: Complies with local environmental protection and occupational health regulations.

## Section 16:Additional Information

This data and these recommendations apply only when the product is sold for its stated purpose. The product must not be sold as a substitute for other purposes.Using the product for purposes not listed in this manual may result in risks not mentioned herein.It is strictly prohibited to use the product for any purpose other than its stated use without our professional advice.

If you purchase this product for supply to third parties for occupational use, you shall be responsible for taking all necessary measures to ensure that persons handling or using this product have access to the information contained in this Safety Data Sheet.

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