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Chemical Production Co.Ltd

Technical Data Sheet

Liquid Paraffin

Product Name: Liquid Paraffin
Chemical Name: Highly Refined Mineral Oil / Paraffinic Oil
CAS Number: 8042-47-5
Appearance: Clear, colorless, oily liquid
Product Type: Refined hydrocarbon oil
Grade: Industrial / Cosmetic / Pharmaceutical grade available upon request
Recommended Use: Industrial processing, lubrication, cosmetics, pharmaceuticals, plastics, rubber, textiles, polishes, and chemical formulations

1. Product Description

Liquid Paraffin is a highly refined, transparent, odorless mineral oil produced from selected petroleum fractions through advanced purification and refining processes. It consists mainly of saturated hydrocarbons and offers excellent chemical stability, low reactivity, smooth texture, and reliable performance in a wide range of industrial and commercial applications.

This product is widely used as a lubricant, softening agent, carrier oil, release agent, protective coating, processing aid, and formulation base. Due to its neutral nature, low odor, and high purity, liquid paraffin performs well in applications where consistency, cleanliness, and long-term stability are required.

2. Typical Properties

Property	Unit	Typical Value
Appearance	—	Clear, bright liquid
Color	Saybolt	+25 to +30
Odor	—	Odorless / Mild
Density at 20°C	g/cm³	0.820 – 0.880
Kinematic Viscosity at 40°C	cSt	10 – 70
Flash Point	°C	Min. 160
Pour Point	°C	Max. -6
Boiling Range	°C	Above 300
Refractive Index at 20°C	—	1.460 – 1.480

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Property	Unit	Typical Value
Water Content	%	Max. 0.05
Acidity	mg KOH/g	Max. 0.05
Sulfur Content	%	Low / Trace
Solubility in Water	—	Insoluble
Solubility in Organic Solvents	—	Soluble in many hydrocarbons
Stability	—	Stable under normal storage conditions

Note: The values above are typical specifications and may vary slightly depending on grade, viscosity range, manufacturing process, and customer requirements.

3. Chemical Characteristics

Liquid paraffin is composed mainly of saturated aliphatic hydrocarbons. It has low chemical reactivity and does not easily oxidize under normal storage and handling conditions. Its hydrophobic nature makes it suitable for moisture-resistant formulations and protective applications.

Chemical Property	Description
Chemical Family	Saturated hydrocarbons
Reactivity	Low
Oxidation Resistance	Good
Water Solubility	Insoluble
Compatibility	Compatible with many oils, waxes, and hydrocarbon solvents
Incompatibility	Strong oxidizing agents

4. Available Grades

Liquid paraffin can be supplied in different grades depending on the final application and required specification.

Grade	Description	Common Applications
Light Liquid Paraffin	Lower viscosity, easier flow, smooth texture	Cosmetics, light lubrication, sprays, pharmaceuticals, polishes
Heavy Liquid Paraffin	Higher viscosity, stronger film formation	Rubber, plastics, coatings, industrial lubrication, leather treatment
Industrial Grade	Suitable for general manufacturing and processing	Textiles, rubber, plastics, chemicals, polishes
Cosmetic Grade	Higher purity for personal care use	Creams, lotions, ointments, skin-care products
Pharmaceutical Grade	High-purity grade meeting stricter quality requirements	Medicinal and pharmaceutical formulations

5. Main Applications

Liquid paraffin is used in many industries because of its stability, lubricity, purity, and non-reactive behavior.

Common applications include:

Industry	Application
Rubber Industry	Processing oil, softener, lubricant
Plastic Industry	Additive, release agent, processing aid
Cosmetics	Emollient, skin-conditioning agent, carrier oil
Pharmaceuticals	Base oil, lubricant, formulation ingredient
Textiles	Fiber lubricant, softening agent
Polishes	Gloss enhancer, protective film former
Leather Industry	Softener, finishing agent
Agriculture Chemicals	Carrier oil for formulations
Metalworking	Protective oil, anti-rust support
Printing Inks	Binder support and processing aid

6. Key Benefits

Liquid paraffin offers dependable performance across many production environments. Its refined structure gives manufacturers a clean, stable, and versatile raw material that can improve both product quality and processing efficiency.

Key advantages include:

- Clear and colorless appearance
- Low odor and clean handling
- Excellent chemical stability
- Good lubricating properties
- Water-resistant performance
- Low volatility under normal conditions
- Compatible with many oils, waxes, and additives
- Available in light and heavy viscosity grades
- Suitable for bulk industrial supply
- Long shelf life when stored properly

7. Handling and Storage

Store liquid paraffin in a cool, dry, and well-ventilated area. Keep containers tightly closed when not in use to prevent contamination from dust, water, or other materials. Avoid exposure to excessive heat, open flames, and strong oxidizing substances.

Recommended storage conditions:

Storage Requirement	Recommendation
Storage Temperature	Ambient temperature
Container Condition	Keep tightly closed
Storage Area	Cool, dry, ventilated place
Keep Away From	Strong oxidizers, heat, flames
Contamination Control	Avoid water, dust, and foreign materials
Shelf Life	Typically 24 months under proper storage conditions

8. Safety Information

Liquid paraffin is generally stable and safe to handle under normal industrial conditions. However, standard chemical handling practices should always be followed. Avoid prolonged skin contact, eye contact, and inhalation of oil mist. Use appropriate personal protective equipment during handling, transfer, and processing.

Recommended protective measures:

Protection Type	Recommendation
Eye Protection	Safety glasses or goggles
Hand Protection	Chemical-resistant gloves
Skin Protection	Protective work clothing
Respiratory Protection	Use ventilation if mist is generated
Hygiene	Wash hands after handling

For complete safety, transport, disposal, and emergency information, always refer to the official **Liquid Paraffin MSDS / SDS**.

9. Packaging Options

Liquid paraffin can be supplied in different packaging types based on order volume and customer requirements.

Packaging Type	Common Capacity
Plastic Drum	160–170 kg
Steel Drum	160–180 kg
IBC Tank	900–1,000 kg
Flexitank	20–22 MT
ISO Tank	Bulk quantity
Road Tanker	Bulk delivery

Packaging availability may vary depending on destination, grade, and order quantity.

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10. Quality and Documentation

Each batch of liquid paraffin can be supplied with quality and technical documents upon request. These documents help buyers confirm product suitability before use in industrial, cosmetic, or pharmaceutical applications.

Available documents may include:

- **Certificate of Analysis / COA**
- **Technical Data Sheet / TDS**
- **Material Safety Data Sheet / MSDS**
- **Product Specification Sheet**
- **Batch Number and Traceability Details**
- **Compliance Documents**, depending on grade and market requirements

11. Transport Information

Liquid paraffin is normally transported as a non-dangerous product under standard conditions, depending on local transport regulations and grade specification. Containers should remain sealed during transport and protected from physical damage, leakage, contamination, and excessive heat.

Transport Item	Information
Transport Name	Liquid Paraffin / Mineral Oil
Hazard Classification	Usually not classified as dangerous goods
Packaging Condition	Sealed and leak-free
Transport Mode	Road, sea, or bulk tanker
Special Precaution	Avoid heat, contamination, and container damage

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12. Specification Summary

Item	Specification
Product	Liquid Paraffin
Appearance	Clear, colorless oily liquid
Odor	Odorless or mild
Density	0.820 – 0.880 g/cm³
Viscosity	Available in light and heavy grades
Boiling Point	Above 300°C
Flash Point	Min. 160°C
Water Solubility	Insoluble
Main Function	Lubricant, carrier oil, softener, processing aid
Shelf Life	Up to 24 months under proper storage
Packaging	Drum, IBC, flexitank, ISO tank, bulk tanker