



Material Safety Data Sheet

Liquid Paraffin

Document Type: MSDS / SDS

Product Name: Liquid Paraffin

Chemical Name: Highly Refined Mineral Oil

CAS Number: 8042-47-5

Recommended Use: Industrial raw material, lubricant, carrier oil, processing aid, cosmetic and pharmaceutical formulation ingredient where suitable grade is approved

Restriction of Use: Use only according to product grade, local regulations, and technical recommendations

1. Identification of the Substance and Company

Item	Information
Product Name	Liquid Paraffin
Synonyms	White Mineral Oil, Paraffin Oil, Mineral Oil, Liquid Petrolatum
Chemical Family	Saturated hydrocarbons
CAS Number	8042-47-5
EC Number	232-455-8
Product Form	Clear oily liquid
Recommended Use	Lubricant, carrier oil, softener, release agent, processing aid, formulation base
Supplier	To be completed by supplier
Emergency Contact	To be completed by supplier



2. Hazard Identification

GHS Classification

Liquid paraffin is generally **not classified as hazardous** under normal conditions of use, depending on grade, purity, and local regulations.

Hazard Class	Classification
Physical Hazards	Not classified
Health Hazards	Not classified under normal handling conditions
Environmental Hazards	Not classified, but avoid release to the environment

Label Elements

Label Element	Information
Signal Word	Not required
Hazard Pictogram	Not required
Hazard Statements	Not classified as hazardous under normal use
Precautionary Statements	Avoid prolonged skin contact, eye contact, and inhalation of oil mist. Prevent spills and environmental release.

Main Hazards

Liquid paraffin has low acute toxicity under normal handling conditions. However, mist or vapor generated at high temperature may irritate the respiratory system. Prolonged or repeated skin contact may cause dryness or mild irritation. Spills can create slippery surfaces and increase the risk of falls.

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
Highly Refined Mineral Oil / Liquid Paraffin	8042-47-5	99–100%

Note: Product composition may vary slightly depending on grade, viscosity, refining level, and intended application. Pharmaceutical, cosmetic, and industrial grades may have different purity requirements.



4. First Aid Measures

Eye Contact

Rinse eyes carefully with clean water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing until discomfort stops. Get medical advice if irritation continues.

Skin Contact

Wash affected skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if redness, dryness, or irritation continues. Wash contaminated clothing before reuse.

Inhalation

Move the person to fresh air. Keep them comfortable and at rest. If breathing discomfort, coughing, or irritation continues, get medical advice. Inhalation risk is mainly possible when oil mist forms during spraying, heating, or high-pressure handling.

Ingestion

Rinse mouth with water. Do not force vomiting. Get medical advice if a large amount is swallowed or discomfort occurs. Never give anything by mouth to an unconscious person.

Most Important Symptoms

Possible symptoms may include mild eye irritation, mild skin irritation after repeated contact, nausea after ingestion, or respiratory discomfort if oil mist is inhaled.

5. Firefighting Measures

Suitable Extinguishing Media

Use foam, dry chemical powder, carbon dioxide, or water spray. Use water spray to cool exposed containers.

Unsuitable Extinguishing Media

Do not use a direct high-pressure water jet, as it may spread burning liquid.



Specific Hazards

Liquid paraffin is combustible at high temperatures. Thermal decomposition or burning may produce carbon monoxide, carbon dioxide, smoke, and irritating fumes.

Protective Equipment for Firefighters

Firefighters should wear full protective clothing and self-contained breathing apparatus. Cool nearby containers with water spray to prevent pressure buildup or rupture.

6. Accidental Release Measures

Personal Precautions

Avoid direct contact with skin and eyes. Avoid breathing mist or vapor if the product is hot. Wear suitable gloves, protective clothing, and eye protection. Spilled liquid may make floors slippery.

Environmental Precautions

Prevent product from entering drains, soil, waterways, and sewers. Inform local authorities if a large spill enters the environment.

Cleanup Methods

Contain the spill with sand, earth, or other non-combustible absorbent material. Collect into suitable labeled containers for disposal. Clean the affected area with appropriate detergent or degreasing agent to remove slippery residue.

Large Spills

Stop the leak safely if possible. Build barriers to prevent spreading. Recover product by pumping or absorbing. Dispose of collected material according to local regulations.



7. Handling and Storage

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid prolonged or repeated skin contact. Avoid eye contact. Avoid creating or breathing oil mist. Use proper ventilation when product is heated, sprayed, or used in enclosed areas.

Do not eat, drink, or smoke while handling the product. Wash hands after handling and before breaks. Keep containers closed when not in use.

Storage

Store in a cool, dry, and well-ventilated area. Keep containers tightly closed and protected from contamination. Keep away from heat, open flames, sparks, strong oxidizing agents, and direct sunlight.

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

8. Exposure Controls / Personal Protection

Occupational Exposure Limits

No specific exposure limit may be established for liquid paraffin in some regions. Where oil mist exposure limits apply, follow local occupational safety regulations.

Engineering Controls

Use general ventilation under normal handling conditions. Use local exhaust ventilation if mist, spray, or vapor forms, especially during heating or high-pressure applications.



Personal Protective Equipment

Protection Type	Recommendation
Eye Protection	Safety glasses or chemical splash goggles
Hand Protection	Nitrile, neoprene, or chemical-resistant gloves
Skin Protection	Protective work clothing
Respiratory Protection	Not normally required. Use approved respirator if oil mist exceeds exposure limits.
Hygiene Measures	Wash hands after handling. Remove contaminated clothing.

9. Physical and Chemical Properties

Property	Typical Value
Appearance	Clear, bright oily liquid
Color	Colorless
Odor	Odorless or mild petroleum odor
Physical State	Liquid
pH	Not applicable
Melting Point	Not available / varies by grade
Initial Boiling Point	Typically above 300°C
Flash Point	Usually above 160°C, depending on grade
Evaporation Rate	Low
Flammability	Combustible at high temperature
Vapor Pressure	Very low at room temperature
Vapor Density	Not available
Relative Density at 20°C	Approx. 0.820–0.880 g/cm ³
Solubility in Water	Insoluble
Solubility in Organic Solvents	Soluble in many hydrocarbon solvents
Partition Coefficient	Not available
Auto-Ignition Temperature	Not available / varies
Decomposition Temperature	Not available
Kinematic Viscosity at 40°C	Varies by grade, commonly 10–70 cSt
Explosive Properties	Not explosive
Oxidizing Properties	Not oxidizing



Note: Values are typical and may vary depending on grade, specification, and production batch.

10. Stability and Reactivity

Item	Information
Reactivity	Low reactivity under normal conditions
Chemical Stability	Stable under recommended handling and storage conditions
Possibility of Hazardous Reactions	No hazardous reaction expected under normal use
Conditions to Avoid	Excessive heat, flames, sparks, strong sunlight, contamination
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, smoke, irritating fumes during combustion

11. Toxicological Information

Likely Routes of Exposure

Liquid paraffin may enter the body through skin contact, eye contact, inhalation of mist, or accidental ingestion.

Exposure Route	Possible Effect
Eye Contact	May cause mild temporary irritation
Skin Contact	Prolonged contact may cause dryness or mild irritation
Inhalation	Mist may irritate nose, throat, or respiratory system
Ingestion	May cause stomach discomfort if swallowed

Acute Toxicity

Liquid paraffin generally has low acute toxicity. Normal industrial handling is not expected to cause serious health effects when proper precautions are followed.

Skin Corrosion / Irritation

Not expected to be corrosive. Repeated or prolonged contact may remove natural skin oils and cause dryness.



Eye Damage / Irritation

May cause mild mechanical irritation.

Respiratory Sensitization

Not expected to be a respiratory sensitizer.

Skin Sensitization

Not expected to be a skin sensitizer.

Carcinogenicity

Highly refined mineral oils are generally not classified as carcinogenic when they meet applicable refining and purity standards. Classification may depend on grade, refining history, and local regulations.

12. Ecological Information

Item	Information
Ecotoxicity	Not expected to be highly toxic, but large releases may harm the environment
Persistence and Degradability	Expected to be persistent in the environment
Bioaccumulative Potential	May have potential to bioaccumulate
Mobility in Soil	Low mobility due to low water solubility
Water Hazard	Can form a film on water surface and affect oxygen transfer

Environmental Precautions

Do not discharge into drains, rivers, soil, or public waterways. Collect spills and dispose of waste according to local environmental regulations.

13. Disposal Considerations

Dispose of liquid paraffin, contaminated absorbents, and empty containers according to local, regional, national, and international regulations. Do not pour into drains, surface water, or soil.



Empty containers may contain product residue. Do not cut, weld, puncture, or expose empty containers to heat or flame. Send empty packaging to approved recycling or disposal facilities where permitted.

14. Transport Information

Liquid paraffin is generally not classified as dangerous goods for transport under normal conditions. Transport classification may vary depending on grade, flash point, packaging, and local regulations.

Transport Information	Classification
UN Number	Not regulated
Proper Shipping Name	Not regulated
Transport Hazard Class	Not regulated
Packing Group	Not regulated
Marine Pollutant	Not normally classified
Special Precautions	Keep containers sealed and protected from heat and damage

Transport Precautions

Transport in clean, dry, sealed containers. Avoid leakage, contamination, and exposure to excessive heat. Follow all applicable transport regulations in the destination country.

15. Regulatory Information

Regulatory status depends on product grade, country, and intended use. Users must confirm compliance with local chemical, occupational safety, environmental, pharmaceutical, cosmetic, food-contact, or industrial regulations before use.

Regulation Area	User Responsibility
Industrial Use	Confirm local chemical registration and workplace safety rules
Cosmetic Use	Use only approved cosmetic grade and follow cosmetic regulations
Pharmaceutical Use	Use only approved pharmaceutical grade and follow pharmacopeia requirements
Food-Contact Use	Use only approved grade where permitted
Environmental Rules	Prevent release and follow disposal regulations



16. Other Information

Recommended Documents

Users should request and review the following documents before commercial use:

- Certificate of Analysis / COA
- Technical Data Sheet / TDS
- Product Specification Sheet
- Batch Traceability Documents
- Regulatory Compliance Documents, where applicable

Abbreviations

Abbreviation	Meaning
MSDS	Material Safety Data Sheet
SDS	Safety Data Sheet
CAS	Chemical Abstracts Service
GHS	Globally Harmonized System
COA	Certificate of Analysis
TDS	Technical Data Sheet
PPE	Personal Protective Equipment