



MATERIAL SAFETY DATA SHEET (MSDS) — Spindle Oil

Product Name: Basekim Spindle Oil

Supplier / Manufacturer: Basekim Chemical Production Co. (UAE / Turkey)

Intended Use: Lubricant for high-speed spindles, precision bearings, CNC machines, grinding, milling, and similar machinery.

Section 1: Identification

Item	Details
Product	Spindle Oil
Synonyms	Precision Spindle Lubricant
Supplier	Basekim Chemical Production Co.
Address / Contact	Turkey & UAE offices (per Basekim)
Emergency Contact	Basekim technical / safety department / local medical emergency line

Section 2: Hazard Identification

GHS Classification (anticipated):

- Skin Irritation — Category 2
- Eye Irritation — Category 2A
- Aspiration Hazard — Category 1 (if misted or aerosolized and large quantities)
- Hazardous to aquatic life — Acute Category 2 / Chronic Category 2 (depending on additive biodegradability)

Signal Word: WARNING

Hazard Statements:

- Causes skin irritation.
- Causes serious eye irritation.
- May be harmful if inhaled (in mist or vapour form).
- Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Avoid contact with skin and eyes.
- Do not breathe mist or vapours.
- Use only outdoors or in well-ventilated areas.



- Wear protective gloves, eye/face protection.
- Keep away from release to the environment.

Section 3: Composition / Information on Ingredients

Component	CAS No.*	Approximate Concentration (%)
Refined mineral oil base	~ mixture of hydrocarbons	90-98%
Anti-rust / corrosion inhibitors	proprietary	~1-5%
Oxidation stabilizers	proprietary	<1%
Additives for film strength, anti-foaming, heat resistance	proprietary blends	<1%

* Exact CAS numbers depend on the base oil type and specific additives. Must be provided by manufacturer.

Section 4: First Aid Measures

- **Eye Contact:** Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if irritation continues.
- **Skin Contact:** Wash with soap and water. Remove contaminated clothing. If irritation or rash develops, seek medical advice.
- **Inhalation:** Move to fresh air. If breathing is difficult or symptoms occur, seek medical attention.
- **Ingestion:** Do NOT induce vomiting. Rinse mouth. Seek medical attention immediately.

Section 5: Firefighting Measures

- **Flash Point:** Likely high ($\geq 150-200$ °C) depending on base oil. (Obtain actual from lab.)
- **Auto-ignition Temp.:** As per oil base specification.
- **Extinguishing Media:** Foam, CO₂, dry chemical powder.
- **Unsuitable Media:** High-pressure water jets (could spread oil).
- **Special Hazards:** Burning oil may generate smoke, carbon monoxide, carbon dioxide, possibly other toxic fumes.



- **Protective Equipment:** Firefighters should use self-contained breathing apparatus and flame-resistant protective clothing.

Section 6: Accidental Release Measures

- **Personal Precautions:** Wear protective gloves and eye protection. Avoid skin contact. Avoid inhalation of vapour or mist.
- **Environmental Precautions:** Prevent entry into drains, groundwater or surface water. Contain spill to avoid spreading.
- **Methods for Cleanup:** Absorb spill with inert material (sand, earth, vermiculite). Collect used absorbent in appropriate containers. Clean remaining residue with detergent if needed. Dispose of waste in compliance with local regulations.

Section 7: Handling and Storage

- **Handling:** Use in well-ventilated area. Avoid generating mist. Keep containers closed when not in use. Prevent contact with incompatible materials.
- **Storage:** Store in a cool, dry, well ventilated place. Avoid exposure to excessive heat, direct sunlight. Store away from strong oxidizing agents.
- **Recommended Temp Range:** (e.g.) 5-40 °C (adjust as per product spec).

Section 8: Exposure Controls / Personal Protection

- **Occupational Exposure Limits:**
Use limits for mineral oil mist (if applicable), local country OELs.
- **Engineering Controls:** Local exhaust ventilation or closed systems if mist is generated.
- **PPE:**
 - Eye protection: safety goggles or face shield
 - Skin protection: gloves resistant to oils (e.g. nitrile) and protective clothing
 - Respiratory protection: if vapour/mist exceeds exposure limits, use appropriate respirator
- **Hygiene:** Wash hands after handling. Avoid eating, drinking in work areas.



Section 9: Physical and Chemical Properties

Property	Typical Value / Range*
Appearance	Clear to slightly amber liquid
Odor	Mild petroleum / hydrocarbon odor
Density @ 15 °C	~ 0.85 - 0.88 g/cm ³ (depending on base oil)
Kinematic viscosity @ 40 °C	Low viscosity: e.g. 10-30 cSt (verify exact sample)
Viscosity at 100 °C	corresponding lower value (e.g. ~2-5 cSt)
Flash Point (Closed Cup)	≥ around 150-200 °C (actual lab test needed)
Pour Point	e.g. -15 to 0 °C depending on formulation
Solubility	Insoluble in water; miscible with hydrocarbons/organic solvents
Oxidation Stability	Good; resists sludge/gum formation under recommended conditions

* Values to be confirmed in lab tests for the specific oil grade.

Section 10: Stability and Reactivity

- **Stability:** Stable under recommended storage & usage conditions.
- **Reactivity:** Non-reactive with many materials; avoid strong oxidizing agents.
- **Hazardous Decomposition Products:** Smoke, CO, CO₂, possibly light volatile hydrocarbons under high heat.
- **Conditions to Avoid:** Excessive heat, open flame, contamination with water or dust, long storage under oxidizing atmosphere.

Section 11: Toxicological Information

- **Acute Toxicity:** Low for ingestion or dermal exposure (in small amounts).
- **Skin Contact:** Prolonged or repeated contact may lead to irritation.
- **Eye Contact:** Can cause irritation.
- **Inhalation:** Inhalation of mists or vapors may irritate respiratory tract.
- **Chronic Effects:** Repeated exposure to used oil (with contaminants) may pose extra risk; monitor for dermatitis.



Section 12: Ecological Information

- **Aquatic Toxicity:** Likely harmful to aquatic organisms due to hydrocarbons and additives.
- **Persistence and Degradability:** Base oil is not readily biodegradable; additives may vary.
- **Bioaccumulation:** Some components may bioaccumulate.
- **Environmental Fate:** Oil films may reduce oxygen transfer in water.

Section 13: Disposal Considerations

- Dispose of in accordance with local regulations.
- Avoid release to soil or water.
- Used oil might be regulated hazardous waste.

Section 14: Transport Information

- **UN Number:** Typically non-hazardous for transport (but depends on flash point and other properties).
- **Proper Shipping Name:** Spindle Oil or Lubricating Oil, N.O.S. (if additives)
- **Hazard Class:** Usually 3 (Flammable Liquids) if flash point is low; otherwise non-hazardous classification might apply.
- **Packing Group:** Based on flash point and other properties.
- **Marine Pollutant:** Possibly yes depending on additives.

Section 15: Regulatory Information

- Must comply with applicable local, national, and international regulations (OSHA, GHS, REACH, etc.).
- Safety labeling as per GHS.

Section 16: Other Information

- **Revision Date:** (e.g. current date)
- **Prepared by:** Basekim Technical / Safety Team
- **Disclaimer:** Information is provided in good faith but without warranty. Users should verify properties for their specific sample.

