



Material Safety Data Sheet (MSDS) — Turbine Oil

Product Name: Basekim Turbine Oil

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

Intended Use: Lubricant for steam, gas, and hydraulic turbines; also for bearings, circulatory systems, industrial rotating equipment.

Emergency Contact: Basekim Technical / Safety Department / Local Emergency Services

Section 1: Identification

Field	Information
Product Identifier	Basekim Turbine Oil
Synonyms	Turbine Lubricant, Turbine Bearing Oil
Chemical Family	Refined hydrocarbon oil with additives
Uses	Turbine lubrication to reduce friction, manage heat, prevent corrosion, and control deposits / sludging
Supplier	Basekim Chemical Production Co., Turkey & UAE
Address / Contact	As per Basekim “Turbine Oil” product page Basekim

Section 2: Hazard Identification

GHS Classification (anticipated):

Skin Irritation – Category 2

Eye Irritation – Category 2A

Aspiration Hazard – Category 1 (if ingested or aerosol inhaled)

Hazardous to aquatic life – Acute Category 2 / Chronic Category 2

Signal Word: WARNING

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May be fatal if swallowed and enters airways.

Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Avoid contact with skin and eyes.

Do not breathe mist/vapour.

Keep out of reach of children.

Use only in well-ventilated area.

Wear protective gloves, eye protection, protective clothing.

Prevent release to the environment.

Section 3: Composition / Information on Ingredients



Component	CAS Number	Approximate Concentration (%)
Refined Mineral / Hydrocarbon Base Oil	Mixture of hydrocarbons	~ 85-98%
Oxidation Inhibitors	Proprietary additive	~ 0.5-3%
Anti-wear / Anti-rust / Corrosion Inhibitors	Proprietary additive(s)	~ 0.5-5%
Demulsifiers / Water Separation Agents	Proprietary	~ 0.1-1%
Foam Inhibitors / Anti-foam Agents	Proprietary	~ 0.05-1%

Actual composition depends on the specific turbine oil grade; percentages are illustrative.

Section 4: First Aid Measures

Eye Contact: Rinse immediately with water for at least 15 minutes. Remove contact lenses if present. Seek medical attention if irritation persists.

Skin Contact: Wash skin thoroughly with soap and water. Remove contaminated clothing. If irritation or rash appears, seek medical advice.

Inhalation: Move the person to fresh air. If breathing difficulty or symptoms occur, seek medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Seek medical attention immediately. Avoid aspiration.

Section 5: Firefighting Measures

Flash Point: Likely $\geq 180-220$ °C (Closed Cup) (confirm by lab test)

Auto-ignition Temperature: As per base oil / additive package (e.g., $\sim 250-300$ °C)

Suitable Extinguishing Media: Foam, dry chemical, CO₂

Unsuitable Media: Fine water jets (can spread the oil)

Hazards in Fire: Burning oil can produce carbon monoxide (CO), carbon dioxide (CO₂), smoke, possibly sulfur oxides and other harmful fumes

Protective Equipment for Firefighters: Self-contained breathing apparatus (SCBA), full firefighting gear

Section 6: Accidental Release Measures

Personal Precautions: Use protective gloves and eye protection. Avoid skin contact. Ensure proper ventilation.

Environmental Precautions: Prevent oil entering drains, water courses or soil. Oil may be harmful to aquatic life and cause long-term environmental damage.

Methods for Cleanup: Contain spill with absorbent material (sand, earth, vermiculite). Collect into suitable, labelled waste containers. Clean residual with detergent and water. Dispose of waste per local regulations.

Section 7: Handling and Storage



Handling: Avoid spills, leaks. Use clean equipment. Minimize aerosol / mist. Avoid contact with skin and eyes.

Storage: Store in a cool, dry, well-ventilated place. Protect from direct sunlight and heat. Keep containers tightly closed when not in use.

Temperature Range: Recommended storage temperatures ~5-40 °C (or as per product specification)

Incompatibilities: Strong oxidizing agents.

Section 8: Exposure Controls / Personal Protection

Occupational Exposure Limits: For mineral oil mists (if generated), follow local OELs. Where applicable, consider limits for any volatile compounds in the additive package.

Engineering Controls: Local exhaust ventilation especially where mist / aerosol may be produced.

PPE:

Eye/Face Protection: Safety goggles or face shield

Skin Protection: Oil-resistant gloves (e.g. nitrile), protective clothing

Respiratory Protection: If vapors/mists exceed exposure limits, use appropriate respirator

Hygiene Measures: Wash hands after handling; avoid eating/drinking in work areas

Section 9: Physical & Chemical Properties

Property	Typical Value / Range*
Appearance	Clear to light amber liquid
Odor	Mild hydrocarbon / petroleum odor
Density @ 15 °C	~0.85 - 0.89 g/cm ³
Kinematic Viscosity @ 40 °C	~20-50 cSt (depends on grade)
Viscosity @ 100 °C	Correspondingly lower (e.g. ~4-10 cSt)
Viscosity Index	~90-110
Flash Point (Closed Cup)	~180-220 °C
Pour Point	e.g. -10 to -20 °C depending on base oil and grade
Water Separation / Demulsibility	Good water separation (fast demulsibility)
Oxidation Stability	High resistance to oxidation under service conditions
Solubility	Insoluble in water; miscible with hydrocarbon solvents

These are typical values. Actual values must be provided by lab test for each batch.

Section 10: Stability and Reactivity

Stability: Stable under normal storage and operation conditions.

Conditions to Avoid: Excessive heat, contamination (oxidizers, water, particles), prolonged exposure to air/oxygen at elevated temperature.

Incompatible Materials: Strong oxidizers, acids.

Hazardous Decomposition Products: Smoke, CO, CO₂, possibly sulfur oxides depending on



additives.

Section 11: Toxicological Information

Acute Toxicity: Likely low via dermal / oral routes for refined base oil and tested additive package.

Skin Contact: May cause irritation; prolonged contact may dry skin or lead to dermatitis.

Eye Contact: May cause irritation.

Inhalation: Mists / vapors may irritate respiratory tract.

Chronic Effects: Prolonged or repeated exposure may lead to skin sensitization; inhalation of mists may have more serious respiratory effects.

Section 12: Ecological Information

Aquatic Toxicity: Harmful to aquatic organisms; potential long-term effects.

Persistence and Degradability: The refined oil and many additives are not readily biodegradable.

Additive biodegradability may vary.

Bioaccumulation Potential: Some hydrocarbon components may accumulate in organisms.

Environmental Fate: Oil films on water may reduce oxygen transfer; soil contamination possible.

Section 13: Disposal Considerations

Dispose of in accordance with local, regional, national, and international regulations.

Used oil may be classified as hazardous waste depending on contamination and additive content.

Do not discharge into drains or waterways.

Section 14: Transport Information

UN Number: Depends on flash point; many turbine oils are not classified as flammable if flash point is high enough; if classified → UN 3082 or similar (for environment hazardous liquids) or flammable liquid UN 1993 etc. Confirm with lab data.

Proper Shipping Name: Turbine Oil or Lubricating Oil, N.O.S. (with additive)

Transport Hazard Class: Typically "Not regulated" for many turbine oils; but if flammable, then Class 3

Packing Group: Based on flash point and other hazards

Marine Pollutant: Possibly yes (if toxic to aquatic life)

Section 15: Regulatory Information

Must comply with GHS labeling, local occupational safety laws, environmental protection regulations.

Label to reflect hazard for skin/eye irritation, aspiration, aquatic toxicity.

Section 16: Other Information

Revision Date: [Insert date]

Prepared by: Basekim Technical / Safety Team

Disclaimer: Provided in good faith based on known data; users must verify specific values and



comply with regulations in their jurisdiction.