TECHNICAL DATA SHEET

Kerosene - K1 Clean Burning Fuel

Revised: 02/20/2026

PRODUCT IDENTIFICATION

Product Name: Kerosene - K1 Clean Burning Fuel
CAS Number: 8008-20-6
Molecular Formula: $C_{10}H_{22}$ to $C_{16}H_{34}$
Molecular Weight: 142.28 g/mol
Grade: Laboratory Grade
Purity / Concentration: Not Available
Synonyms: Kerosene Oil, Coal Oil

PRODUCT OVERVIEW

Alliance Chemical's Kerosene - K1 Clean Burning Fuel is a Laboratory Grade solvent, characterized by its light amber, transparent appearance and a flash point of 38.56 °C. Primarily used as a heating fuel in residential systems, this kerosene is ideal for applications requiring a high-quality, clean-burning fuel. Its verified properties ensure consistent performance in demanding laboratory and industrial settings.

Grade Significance: Laboratory Grade Kerosene signifies a high level of purity and quality control, ensuring minimal contaminants that could interfere with sensitive applications. This grade guarantees reliable and consistent performance in laboratory research, critical cleaning processes, and other demanding applications where precision is paramount.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Specific Gravity (20°C)	g/mL	0.8045	0.78	0.84	Hydrometer @ 25°C
Flash Point	°C	38.56	38	—	Per specification
Smoke Point	mm	21.32	21	—	Per specification
Sulfur	%	0.01	—	0.04	Per specification

Values based on 1 batch tested. ND = Not Detected.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Light amber liquid, transparent, low viscosity	**Odor**	Characteristic petroleum odor
Form	Liquid	**Boiling Point**	175°C (347°F)
Melting / Freezing Point	-40°C (-40°F)	**Flash Point**	38°C (100°F)
Solubility	Low water solubility, dissolves in petroleum	**Molecular Formula**	$C_{10}H_{22}$ to $C_{16}H_{34}$
Molecular Weight	142.28 g/mol	**Vapor Pressure (20°C)**	0.5 mmHg
Viscosity (25°C)	1.5 cP	**Refractive Index (20°C)**	1.440
Density (25°C)	0.800 g/mL		

APPLICATIONS

1. **Residential Heating** — Kerosene serves as a reliable primary heating fuel in residential heating systems, providing efficient and consistent warmth during colder months. Its clean-burning properties minimize soot and emissions, contributing to cleaner indoor air quality.
2. **Aviation** — In the aviation industry, kerosene is a crucial fuel component for jet engines, powering aircraft across various distances. Its energy density and stable combustion characteristics make it an ideal choice for jet propulsion.
3. **Industrial Cleaning** — Kerosene is utilized as a solvent in numerous industrial cleaning applications, effectively removing grease, oil, and other contaminants from machinery and equipment. Its solvency power ensures thorough cleaning and maintenance.
4. **Illumination** — Commonly used in oil lamps, kerosene provides a source of illumination in areas without electricity or during power outages. Its consistent burning properties and readily available nature make it a practical lighting solution.
5. **Laboratory Research** — Laboratory grade kerosene is used as a solvent and reagent in various research and development processes. Its controlled purity and consistent properties ensure reliable results in scientific experiments.
6. **Manufacturing** — Kerosene is employed as a process solvent in manufacturing, aiding in the production of various materials and products. Its ability to dissolve and mix with other substances makes it a valuable component in industrial manufacturing processes.

STORAGE & HANDLING

Proper storage of Kerosene - K1 Clean Burning Fuel is essential to maintain its quality and prevent hazards. As a flammable liquid, it should be stored in tightly closed containers in a cool, well-ventilated area, away from heat, sparks, and open flames. This minimizes the risk of fire and ensures the kerosene remains stable and effective for its intended use.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of HDPE or stainless steel to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE, including gloves and goggles, are worn during handling.
- Regularly inspect storage containers for leaks or signs of degradation.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning

Hazard Statements:

- H226: Flammable liquid and vapor

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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