Kerosene - K1 Clean Burning Fuel

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-12	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Kerosene - K1 Clean Burning Fuel
CAS Number	8008-20-6
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Kerosine; No. 1-K kerosene; K-1; Fuel oil No. 1
Recommended Use	Fuel for kerosene heaters, lamps and stoves designed for 1-K kerosene.
Restrictions on Use	Do not use in appliances designed for gasoline or other fuels. Use unvented heaters only with adequate ventilation (carbon monoxide hazard). Not for ingestion or medicinal use.

2 Hazard Identification



Flammable



Irritant / harmful



Health hazard



Environmental hazard

Classification

Flammable liquids, Category 3

Aspiration hazard, Category 1

Skin corrosion/irritation, Category 2

Carcinogenicity, Category 2

Hazardous to the aquatic environment, long-term hazard, Category 2 †

† GHS environmental hazard class; not adopted under OSHA HCS (29 CFR 1910.1200).

Signal Word

Danger

Hazard Statements

- H226 Flammable liquid and vapor
- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H351 Suspected of causing cancer
- H411 Toxic to aquatic life with long lasting effects

Precautionary Statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical, ventilating, and lighting equipment.

P242 Use non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash hands and face thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, and eye/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P308+P313 IF exposed or concerned: Get medical advice or attention.
P321 Specific treatment (see first-aid information on this label).
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice or attention.
P362 Take off contaminated clothing and wash before reuse.
P370+P378 In case of fire: Use alcohol-resistant foam, CO2 or dry chemical powder to extinguish.
P391 Collect spillage.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Kerosene (petroleum)	8008-20-6	Mixture	95-100% (w/w)
Naphthalene (constituent, varies by supplier)	91-20-3	$C_{10}H_8$	<5% (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes
Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

Skin
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

Inhalation
Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion
Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

Most Important Symptoms and Effects
Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal.

Skin contact causes irritation: redness, itching and pain; repeated contact may dry and crack the skin.

Immediate Medical Attention and Special Treatment	Aspiration hazard: if swallowed, do not induce vomiting and get medical attention immediately. Note to physician: observe for chemical pneumonitis; protect the airway before any gastric procedure.

5 Fire-Fighting Measures

Suitable Extinguishing Media	Alcohol-resistant foam, CO2, dry chemical powder. Water spray may be used to cool fire-exposed containers.
Unsuitable Extinguishing Media	Do not use a solid water stream — may scatter and spread fire.
Specific Hazards Arising from the Chemical	Vapors are heavier than air and may form explosive mixtures with air; they can travel to a source of ignition and flash back. Containers may rupture when heated.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Hazardous Combustion Products	Carbon monoxide and carbon dioxide at high temperature or in a fire; thermal decomposition may also release hydrocarbons and flammable gases.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Hazard-Specific Precautions	Eliminate all ignition sources. Use non-sparking tools and explosion-proof equipment; ground and bond containers during cleanup.
Environmental Precautions	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area away from heat, sparks, and open flame. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. Ground and bond containers when transferring material.
Specific Storage Precautions	Store in tightly closed, labeled containers in a cool, well-ventilated area away from heat, sparks, open flame and direct sunlight. Keep away from oxidizers. Static-accumulating liquid: ground and bond containers when transferring. Never siphon by mouth.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	10 ppm TWA (CAS 91-20-3)
ACGIH TLV	200 mg/m^3 TWA (CAS 8008-20-6); 10 ppm TWA (CAS 91-20-3)

Limit	Value
NIOSH REL	100 mg/m³ TWA (CAS 8008-20-6); 10 ppm TWA / 15 ppm STEL (CAS 91-20-3)
IDLH	250 ppm (CAS 91-20-3)

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Use a NIOSH-approved respirator with organic vapor cartridges. For confined spaces or exposures above the OEL, use supplied-air respiratory protection.

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

9 Physical & Chemical Properties

Appearance	Clear, bright, water-white to very pale straw liquid, free of visible suspended matter and free water
Odor	Characteristic hydrocarbon (petroleum) odor
Odor Threshold	No data available
pH	Not applicable
Melting Point / Freezing Point	-30 °C (-22 °F) max, freezing point (ASTM D2386; D3699 No. 1-K limit)
Boiling Point	150-300 °C (302-572 °F) (distillation range)
Flash Point	47 °C (116.6 °F), Tag closed cup (ASTM D56)
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	LEL 0.6–0.7% / UEL 5–8% (v/v in air)
Vapor Pressure	< 10 mmHg (< 1.3 kPa) at 20 °C
Vapor Density	4–5 (air = 1)
Relative Density	0.78–0.84 at 15.6 °C (water = 1)
Solubility	Insoluble in water
Partition Coefficient (n-octanol/water)	No data available
Auto-ignition Temperature	229–257 °C (444–495 °F)
Decomposition Temperature	No data available
Viscosity	1.0–1.9 mm²/s (cSt) at 40 °C (ASTM D445; D3699 No. 1-K limits)
Particle Characteristics	Not applicable
Form	Liquid

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage.
Chemical Stability	Stable under recommended storage conditions.

Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat, sparks, open flame, other ignition sources and direct sunlight.
Incompatible Materials	Strong oxidizing agents; strong acids.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide at high temperature or in a fire; thermal decomposition may also release hydrocarbons and flammable gases.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal. Skin contact causes irritation: redness, itching and pain; repeated contact may dry and crack the skin.
Delayed and Chronic Effects	Carcinogenicity: may cause or is suspected of causing cancer after long-term exposure (see the carcinogen classification below). Repeated skin contact may cause dermatitis (dry, cracked skin).

Route	Value
LD50 Oral (rat)	> 5000 mg/kg
LD50 Dermal (rabbit)	> 2000 mg/kg
LC50 Inhalation (rat, 4h)	> 5.28 mg/L

Carcinogen Classification

Agency	Status
IARC	Group 2B — possibly carcinogenic to humans (Naphthalene; IARC agent: Naphthalene, Vol. 82).
NTP	Reasonably anticipated to be a human carcinogen (Naphthalene; NTP listing: Naphthalene).
OSHA	No substance-specific standard in 29 CFR 1910 Subpart Z; classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200). See Section 2.

12 Ecological Information

Aquatic Hazard	H411 Toxic to aquatic life with long lasting effects
Ecotoxicity	Classified as hazardous to the aquatic environment (see Section 2); no product-specific ecotoxicity test data on file. Avoid release to the environment.
Persistence & Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

If discarded, this material may be an ignitable hazardous waste (EPA RCRA D001, 40 CFR 261.21(a)(1): flash point below 60 °C; aqueous solutions with less than 24% alcohol by volume are excluded). The waste generator must make the final hazardous-waste determination.

14 Transport Information

US DOT (49 CFR)

UN Number	UN1223
Proper Shipping Name	Kerosene
Hazard Class	3
Packing Group	III

Packaging-dependent regulation: Non-bulk packaging (≤ 119 gal, e.g. drums, pails, cans) ships as NON-REGULATED under the combustible-liquid reclassification (49 CFR 173.150(f)). Bulk packaging (totes/IBC > 119 gal) ships fully regulated under the DOT profile shown above. The combustible-liquid reclassification does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable (49 CFR 173.120(b)(2)).

Environmental Hazards	Meets GHS aquatic-hazard criteria; may be a marine pollutant under the IMDG Code (vessel transport).

IMDG / IATA classifications may differ from US DOT. Verify current regulations before international shipment.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Contains Naphthalene (constituent, varies by supplier) (CAS 91-20-3) at <5%; listed.
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Contains Naphthalene (constituent, varies by supplier) (CAS 91-20-3) at <5%; listed (de minimis 0.1%).

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-12
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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