SAFETY DATA SHEET

Methyl n-Propyl Ketone (2-Pentanone)

Revised: 07/01/2026

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Methyl n-Propyl Ketone (2-Pentanone)
Synonyms: pentan-2-one
CAS Number: 107-87-9
Grade/Purity: Technical
Product Type: Flammable Solvent (Liquid)
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger
GHS Pictograms:



Hazard Statements:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary Statements:

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 action to prevent static discharges.
P280	Wear protective gloves, protective clothing and eye/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use dry chemical, CO2, alcohol-resistant foam, or water fog to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents and container in accordance with all applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	% MIN	% MAX	CAS #	EINECS# / ELINCS#	FORMULA	MOLECULAR WEIGHT
Methyl n-Propyl Ketone (2-Pentanone)	99	99	107-87-9	203-528-1	$C_5H_{10}O$	86.13 g/mol

4. FIRST-AID MEASURES

Eyes	Immediately flush eyes with plenty of water for at least 15 minutes, lifting eyelids occasionally. Remove contact lenses if present and easy to do. Get medical attention if irritation persists.
Skin	Remove contaminated clothing. Wash affected area with soap and water. Get medical attention if irritation develops or persists. Launder clothing before reuse.
Inhalation	Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration; if breathing is difficult, give oxygen. Get medical attention if symptoms (drowsiness, dizziness, headache) occur.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed - get immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Media	Alcohol-resistant foam, CO2, dry chemical powder. Water spray may be used to cool fire-exposed containers.
Unsuitable Media	Do not use a solid water stream — may scatter and spread fire.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Combustion Products	May include carbon oxides and other toxic fumes. See Section 10.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental	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: Strong oxidizers, strong acids and bases, reducing agents, amines, halogens, aldehydes. Keep containers tightly closed. Ground and bond containers when transferring material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

AGENCY	EXPOSURE LIMIT
OSHA PEL	200 ppm
ACGIH TLV	150 ppm
NIOSH REL	150 ppm
IDLH	1500 ppm

Eyes	Wear chemical safety goggles or face shield.
Skin	Wear chemical-resistant gloves and protective clothing.
Inhalation	Use a NIOSH-approved respirator with organic vapor cartridges. For confined spaces or exposures above the OEL, use supplied-air respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid
Odor	Sharp, acetone-like/fruity ethereal odor
Median Particle Size	Not Applicable

Particle Size Distribution	Not Applicable
Particle Shape	Not Applicable
Surface Area	Not Applicable
Dustiness	Not Applicable
Hygroscopicity	Not Applicable
pH	Not applicable (non-aqueous liquid)
Melting Point	~-77 C
Boiling Point	~102 C
Flash Point	~7 C
Vapor Pressure	~27 mmHg at 25 C
Specific Gravity	~0.809
Solubility	Slightly soluble in water (~4.3 g/100 mL at 20 C); miscible with most organic solvents
Molecular Formula	$C_5H_{10}O$
Molecular Weight	86.13 g/mol

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Hazardous Reactions	Vapours may form explosive mixtures with air. Reacts vigorously with strong oxidizers; contact with strong acids/bases and amines may cause exothermic reaction. No hazardous polymerization.
Conditions to Avoid	Heat, sparks, open flame, and incompatible materials.
Incompatible Materials	Strong oxidizers, strong acids and bases, reducing agents, amines, halogens, aldehydes
Decomposition Products	May produce carbon oxides and other toxic fumes when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See below for route-specific data.

ROUTE	VALUE
LD50 Oral	~2130 mg/kg (rat, oral)
LD50 Dermal	>2000 mg/kg (rabbit, dermal)
LC50 Inhalation	~5820 ppm (rat, 4 h)

IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish LC50: ~1150 mg/L (fathead minnow, 96 h, est.); Daphnia EC50: ~1250 mg/L (48 h, est.) [PubChem]
Persistence	Readily biodegradable
Bioaccumulation	BCF: Low (~3; no significant bioaccumulation expected)
Mobility in Soil	High mobility in soil (Log Kow < 1)

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

US DOT	UN1249, Methyl propyl ketone, 3, PG II
IMDG	UN1249, Methyl propyl ketone, 3, PG II
IATA/ICAO	UN1249, Methyl propyl ketone, 3, PG II
Marine Pollutant	No

15. REGULATORY INFORMATION

TSCA: listed. SARA 313 (TRI): not listed. CERCLA: no reportable quantity. California Proposition 65: not listed. State Right-to-Know: listed. US DOT: Class 3, UN1249, PG II.	
SARA 311/312	See Section 2 for hazard classifications.

16. OTHER INFORMATION

Revision Date: 07/01/2026

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