

PRODUCT IDENTIFICATION



Product Name: Cyclohexanone Technical Grade
CAS Number: 108-94-1
Molecular Formula: $C_6H_{10}O$
Molecular Weight: 98.14 g/mol
Grade: Technical Grade
Purity / Concentration: Not Available
Synonyms: 2-Cyclohexanone, Cyclohexanone 99%

PRODUCT OVERVIEW

Cyclohexanone Technical Grade is a versatile, high-purity solvent characterized by a 99.9% assay and a very low color profile of 3 APHA. This colorless liquid is essential for industrial processes, serving as a critical chemical intermediate and a powerful solvent for various resins.

Grade Significance: Technical Grade signifies that this product is manufactured to provide a reliable, high-purity baseline suitable for demanding industrial and manufacturing applications where consistent performance is required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99.9	99	100.5	GC-FID
Color (APHA)	APHA	3	—	5	ASTM D1209
Specific Gravity (20°C)	g/mL	0.9478	0.9458	0.9498	Hydrometer @ 20°C
Non-Volatile Residue	%	0.015	0	0.05	Residue on Ignition
Water Karl Fischer	%	0.033	—	0.05	ASTM E203 / ISO 6296

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless liquid with a pungent odor	Odor	Sweet, pungent odor
Form	Liquid	Boiling Point	312.1 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	3 °F (NTP, 1992)	Flash Point	111 °F (NTP, 1992)
Specific Gravity	0.948	Solubility	Soluble in water, ethanol, ether, and other organic solvents
Molecular Formula	$C_6H_{10}O$	Molecular Weight	98.14 g/mol
Vapor Pressure (20°C)	4.4 mmHg	Viscosity (25°C)	0.9 cP
Refractive Index (20°C)	1.428	Density (25°C)	0.948 g/mL

APPLICATIONS

1. **Paints and Coatings** — It acts as a highly effective solvent for various resins and polymers, ensuring smooth application and consistent finish quality.
2. **Polymer Manufacturing** — This chemical serves as a vital intermediate in the production of nylon 6 and nylon 66, which are foundational materials for synthetic fibers and plastics.
3. **Pharmaceuticals** — It is utilized as a specialized extraction solvent to isolate and purify active pharmaceutical ingredients during complex chemical processing.
4. **Chemical Research** — Laboratory professionals use this compound as a reliable precursor for synthesizing a wide range of organic derivatives and specialty chemicals.

STORAGE & HANDLING

Due to its flash point of 111 °F, Cyclohexanone must be stored in a cool, well-ventilated area away from heat sources and open flames to mitigate fire risks. Proper containment is essential to prevent exposure, as the liquid is harmful if swallowed or absorbed through the skin.

- Store in a cool, dry, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to avoid chemical reactions.
- Keep away from strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) such as gloves and goggles are worn during handling.
- Avoid exposure to light to maintain product stability.

AVAILABLE PACKAGING

- 1 Liter
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H226: Flammable liquid and vapour
- H302: Harmful if swallowed
- H312: Harmful in contact with skin
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H332: Harmful if inhaled
- H335: May cause respiratory irritation

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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