

SPECIFICATION

Product Name: Menthol Crystal IP/BP/USP Grade
Chemical Formula: $C_{10}H_{20}O$
CAS Number: 2216-51-5
Molecular Weight: 156.27 g/mol
Appearance: Colorless, hexagonal crystals, usually needle-like; fused. masses or crystalline powder.
Odor: Strong, characteristic minty odor, Refreshing and cooling aroma

Chemical Composition

Parameter	Unit	Typical Value
Identification	-	When it is triturated with about an equal weight of camphor, of chloral hydrate, or of phenol, the mixture liquefies.
Melting Point	°C	35°C – 42°C
Congeeing range of dl-Menthol	°C	congeals at a temperature between 27°C and 28°C
Specific rotation	°C	Between -2° and +2° for dl-menthol
Nonvolatile residue	%	NMT 0.05%
Readily oxidizable substances in dl-Menthol	-	Passes the test
Organic volatile impurities	-	Passes the test
Chromatographic purity	%	NLT 97.0%

Physical Properties

- Solubility: Practically insoluble in water, very soluble in ethanol and in light petroleum. Freely soluble in fatty oils and in liquid paraffin, very slightly soluble in glycerol.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a cool, dry, and well-ventilated place. Keep container tightly closed to prevent loss by sublimation. Protect from heat and direct sunlight. Keep away from strong oxidizing agents. Prefer storage at temperature below 25°.

Applications

- Use: Used in pain relief products (balms, ointments, gels) for muscle pain and headaches. Used in toothpaste and mouthwash. Used in creams, lotions, gels, and face wash. Used in steam inhalation and essential oil blends. Used in cooling gels and insect bite products.
- Dosage: Should be optimized based on desired cooling intensity and product safety.

Packaging

- Standard Packing: 25 kg Fiber Drum, 1Kgs and 100grams, or as per customer requirement.
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.