

PRODUCT IDENTIFICATION

**Product Name:** D-Limonene Technical Grade**CAS Number:** 5989-27-5**Molecular Formula:** C₁₀H₁₆**Molecular Weight:** 136.23 g/mol**Grade:** Technical Grade**Purity / Concentration:** 100%**Synonyms:** D-Limonene, Limonene

PRODUCT OVERVIEW

D-Limonene is a colorless liquid hydrocarbon classified as a terpene. It is primarily derived from citrus fruit peels and is known for its pleasant citrus odor and solvent properties, making it a versatile compound in various industrial applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay	%	95	94.5	95.5	Application-Specific
Refractive Index 20C	—	1.472	1.471	1.474	Refractometry
Specific Gravity (25°C)	g/mL	0.84	0.838	0.845	IS: 548
Flash Point	°C	≥ 46 °C	—	—	Per specification

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear to pale yellow liquid, citrus-like odor	Odor	Citrus, orange-like
Form	Liquid	Boiling Point	348 to 349 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-142.4 °F (NTP, 1992)	Flash Point	119 °F (NTP, 1992)
Solubility	Insoluble in water, soluble in organics	Molecular Formula	C ₁₀ H ₁₆
Molecular Weight	136.23 g/mol	Vapor Pressure (20°C)	0.5 mmHg
Viscosity (25°C)	0.89 cP	Refractive Index (20°C)	1.474
Density (25°C)	0.845 g/mL	Decomposition Temp.	Not expected to decompose below 200°C under normal conditions

APPLICATIONS

- Industrial** — Used as a solvent in the formulation of paints and coatings due to its effective solvent properties.
- Household** — Utilized in cleaning products for its ability to dissolve oils and grease.
- Food and Beverage** — Employed as a natural flavoring agent in food products, providing citrus flavor.
- FrAGRANCE** — Incorporated in perfumes and fragrances for its pleasant citrus scent.
- Pharmaceutical** — Used in the extraction of essential oils and active compounds from plant materials.
- Chemical Manufacturing** — Serves as an intermediate in the synthesis of various chemicals.

STORAGE & HANDLING

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents.
- Ensure proper ventilation when handling to minimize inhalation exposure.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H226: Flammable liquid and vapor [Warning Flammable liquids]
- H304: May be fatal if swallowed and enters airways [Danger Aspiration hazard]
- H315: Causes skin irritation [Warning Skin corrosion/irritation]
- H317: May cause an allergic skin reaction [Warning Sensitization, Skin]
- H400: Very toxic to aquatic life [Warning Hazardous to the aquatic environment, acute hazard]
- H412: Harmful to aquatic life with long lasting effects [Hazardous to the aquatic environment, long-term hazard]

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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