

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 Technical Grade is a high-purity, 100% natural solvent derived from citrus peels, offering excellent degreasing capabilities. With a refined assay of 95% and a refractive index of 1.472, this clear liquid is a versatile and effective component for industrial cleaning and formulation.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and manufacturing utility where high performance is required, rather than strictly for pharmaceutical or food-grade 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	0.8402	0.8382	0.8422	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

1. **Industrial Cleaning** — Utilized as a powerful solvent in degreasers and heavy-duty cleaners to effectively break down oils, grease, and adhesives.
2. **Paints and Coatings** — Serves as an effective solvent in the formulation of paints and protective coatings to ensure proper consistency and application.
3. **Fragrance and Cosmetics** — Incorporated into perfumes and personal care products to provide a fresh, natural citrus scent profile.
4. **Food and Beverage** — Acts as a natural flavoring agent, delivering a characteristic citrus profile to various food products.

STORAGE & HANDLING

Due to its classification as a flammable liquid, D-Limonene must be stored in a cool, well-ventilated area away from heat sources and open flames. Proper containment is essential to prevent ignition risks and to maintain the chemical integrity of the product over time.

- 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 vapour
- H304: May be fatal if swallowed and enters airways
- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H410: Very toxic to aquatic life with long lasting effects

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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