

Technical Data Sheet (TDS)

- Linalool

Product Number: L-20260215 | **CAS No.:** 78-70-6 | **Revision Date:** 15 FEB 2026 **Brand:** SIGALD |
Molecular Formula: C₁₀ H₁₈ O | **Molecular Weight:** 154.25 g/mol

1. Product Overview

Linalool is a naturally occurring monoterpene alcohol, a core raw material of floral essential oils (lavender, rose, bergamot). It is a colorless clear liquid with a characteristic fresh floral and lavender-like fragrance, manufactured by high-purity distillation of natural essential oils or synthetic synthesis, meeting food, cosmetic and industrial grade standards.

As a multifunctional fine chemical raw material, Linalool has excellent fragrance properties and chemical reactivity. It is widely used in flavor & fragrance, cosmetic, pharmaceutical, cleaning and daily chemical industries, with the advantages of pure fragrance, high purity and stable performance (stabilized with antioxidant to prevent oxidation).

Core Characteristics: High purity (≥98.0%); characteristic fresh floral fragrance; good chemical reactivity for organic synthesis; food/cosmetic grade available; stabilized with BHT to prevent peroxide formation; miscible with most organic solvents.

2. Technical Specifications (Complies with Food/Cosmetic/Industrial Grade Standards)

Item	Specification (Grade: Food/Cosmetic/Industrial)	Result (This Batch)
Appearance	Colorless clear liquid	Colorless clear liquid
Assay (Linalool)	≥98.0%	98.6%
Melting Point	-10 ~ -6°C	-8.3°C
Boiling Point	198 ~ 200°C	199.2°C
Refractive Index (20°C)	1.4600 ~ 1.4640	1.4621
Relative Density (20/20°C)	0.854 ~ 0.860	0.857
Flash Point (Closed Cup)	≥75°C	76°C
Optical Rotation (20°C)	±10°	+2.1°
Water Content	≤0.1%	0.05%
Heavy Metals (Pb)	≤5 ppm	1.3 ppm
Heavy Metals (As)	≤1 ppm	0.2 ppm
Residue on Ignition	≤0.05%	0.02%
Odor	Characteristic fresh floral/lavender fragrance, no off-odor	Conforms to standard
Solubility	Miscible with ethanol, ether, most organic solvents	Conforms to standard
Antioxidant Content (BHT)	≤0.01% (stabilizer)	0.007%

3. Product Advantages

- High Purity & Stable Quality:** Assay ≥98.0%, low impurity and water content; each batch has consistent physical and chemical indicators; stabilized with BHT to prevent oxidation and peroxide formation, extending shelf life.
- Natural & Safe:** Natural grade derived from plant essential oils (GRAS certified by FDA for food use); cosmetic grade meets international cosmetic safety standards, low irritation (excluding sensitization in special populations).
- Excellent Fragrance Property:** Pure fresh floral/lavender fragrance, no pungent off-odor; is a core base material for floral fragrance formulation, with strong fragrance fixing effect.
- Good Compatibility:** Miscible with ethanol, ether, vegetable oil and most fragrance/cosmetic raw materials; no phase separation or precipitation in formulation, suitable for various system preparation.



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

5. **Versatile Reactivity:** Easy to carry out esterification, hydrogenation, oxidation and other modification reactions; key intermediate for pharmaceutical, pesticide and fine chemical synthesis.
6. **Multi-Grade Availability:** Food, cosmetic and industrial grade available, meeting the requirements of different application fields; customizable purity according to customer needs.

4. Application Fields

4.1 Flavor & Fragrance Industry

- **Perfume Formulation:** Core raw material for lavender, rose, jasmine, lily and other floral fragrances; used in high-end perfume, cologne and fragrance oil, with good fragrance fixing effect.
- **Cosmetic Fragrance:** Formulation of shampoo, body wash, soap, lotion and candle fragrance; fresh floral scent, popular in daily chemical products.
- **Food Flavor:** Flavoring agent for candy, beverage, pastry, ice cream and dairy products (complies with food additive use standards, low dosage); mainly used for floral and fruit flavor formulation.

5. Usage Methods & Dosage

5.1 General Usage Principles

- Operate in a well-ventilated area; keep away from heat, sparks and open flames (combustible liquid).
- Avoid direct contact with skin and eyes; wear appropriate PPE during handling (refer to MSDS Section 8); sensitive individuals should avoid repeated contact.
- For fragrance/flavor formulation: Dilute first with ethanol/propylene glycol (1:10 ~ 1:100) then add to the system; stir evenly to avoid local high concentration.
- For organic synthesis: Use as a raw material directly; adjust the dosage according to the reaction formula and process requirements; add extra antioxidant if long-term reaction is required.
- For cosmetic formulation: Add at the final stage of production (temperature $\leq 40^{\circ}\text{C}$) to avoid volatilization and oxidation; stir evenly.

5.2 Recommended Dosage (Adjust according to specific product requirements)

Application Field	Recommended Dosage (w/w)
Perfume formulation	5-25%
Cosmetic fragrance (shampoo/body wash/soap)	0.1-2%
Food flavor formulation	0.001-0.05% (GB 2760/FDA standard)
Pharmaceutical/pesticide synthesis	According to reaction process
Household cleaner additive	0.05-0.5%
Aromatherapy products	1-10%

6. Packaging & Storage

6.1 Packaging Specifications

- **Lab/Small Scale:** 100 mL, 500 mL dark glass bottles (sealed)
- **Commercial Medium Scale:** 5 kg, 25 kg HDPE plastic drums (sealed, dark)
- **Bulk Large Scale:** 200 kg HDPE plastic drums, 1000 kg IBC totes (inner lining with anti-corrosion film, dark)
- **Custom Packaging:** Available upon customer request (e.g., 1 L, 10 kg dark glass/HDPE containers; food grade packaging for food/cosmetic use)

7. Safety & Protection

1. The product is a Class 4 combustible liquid; keep away from heat, sparks and open flames in all handling, storage and transport processes.
2. May cause skin/eye irritation and allergic skin reaction in sensitive individuals; avoid direct contact with skin, eyes and respiratory tract; wear nitrile rubber gloves, chemical splash goggles and protective mask during large-scale handling.
3. Toxic to aquatic organisms with long-lasting effects; avoid release to water, soil and sewage systems; collect all spills and dispose of properly.