纳维盈医化科技
NEWAY SINOPHC TECH

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

Technical Data Sheet (TDS)

- Cinnamyl Acetate 醋酸肉桂酯

Revision Date: 25 FEB 2026

1. Product Overview

- **Product Name**: Cinnamyl Acetate (醋酸肉桂酯)
- **English Name**: Cinnamyl Acetate; 3-Phenyl-2-propen-1-yl acetate
- **CAS Number**: 103-54-8
- **Molecular Formula**: $C_{11}H_{12}O_2$
- **Molecular Weight**: 176.21 g/mol
- **Form**: Colorless to pale yellow clear liquid with a sweet, warm cinnamon-like floral aroma
- **Grade**: Food Grade / Cosmetic Grade / Flavor & Fragrance Grade / Industrial Grade

Cinnamyl Acetate is a high-purity aromatic ester organic compound, a key raw material for synthetic flavor and fragrance. It has a pure and long-lasting cinnamon-sweet floral aroma, excellent thermal stability and compatibility, and complies with EU REACH, US FDA GRAS, FEMA and Chinese national food/cosmetic safety standards. The product is widely used in food flavoring, cosmetic fragrance formulation, daily chemical fragrance and industrial essence synthesis, with stable performance and no secondary odor, and is a classic aroma ingredient in the flavor and fragrance industry.

2. Technical Specifications (Complies with Flavor/Food/Cosmetic Standard)

Item	Specification
Appearance	Colorless-pale yellow clear liquid, characteristic cinnamon aroma
Assay (Cinnamyl Acetate)	≥ 99.0%
Refractive Index (n_{20} D)	1.532 ~ 1.536
Relative Density (25/25℃)	1.046 ~ 1.050 g/cm³
Boiling Point	260 ~ 262℃
Flash Point (Closed Cup)	≥ 110℃
Acid Value (as KOH)	≤ 1.0 mg KOH/g
Water Content	≤ 0.1%
Heavy Metals (Pb)	≤ 5 ppm
Heavy Metals (As)	≤ 1 ppm
Ethanol Solubility (1:5, 95% EtOH)	Clear, no turbidity
Total Bacterial Count (Food/Cosmetic Grade)	≤ 100 CFU/mL
E. coli (Food/Cosmetic Grade)	Negative
Temperature Stability	Stable at 0 ~ 40℃ (aroma/purity retention ≥ 99%)
Storage Stability	24 months unopened (under specified conditions), no discoloration/odor change

3. Product Advantages

1. **High Purity & Pure Aroma**: Assay ≥99.0%, no off-flavor, pure cinnamon-sweet floral aroma, excellent fragrance fixing and blending effect.
2. **Excellent Stability**: Good thermal and chemical stability, no easy decomposition/oxidation under normal use conditions, long-lasting aroma retention.
3. **Wide Compatibility**: Miscible with most organic solvents (ethanol, propylene glycol, vegetable oil, ether), compatible with various flavor/fragrance raw materials and cosmetic bases.
4. **Multi-grade Compliance**: Food grade meets FEMA 2293, FDA GRAS; cosmetic grade complies with EU Cosmetic Regulation (EC 1223/2009); industrial grade meets synthetic essence standards.
5. **Low Irritation**: Low skin/eye irritation, safe for human contact and oral intake (food grade in specified dosage).

6. **Easy Processing**: Liquid state at room temperature, easy to mix and dispense, suitable for all flavor/fragrance formulation processes.

4. Application Fields

- **Food & Beverage Industry**: Flavoring agent for candy, pastry, beverage, ice cream, jam, chocolate; used to prepare cinnamon, fruit, honey and floral flavors (e.g., rose, jasmine).
- **Cosmetic & Personal Care Industry**: Fragrance ingredient for perfume, lotion, cream, shampoo, body wash, lipstick; enhances the warm floral note of cosmetic formulations.
- **Flavor & Fragrance Industry**: Core raw material for synthetic essential oils (cinnamon oil, rose oil); fragrance fixative for daily chemical and fine fragrances.
- **Daily Chemical Industry**: Aroma ingredient for air freshener, candle, soap, detergent; improves the sensory experience of daily chemical products.
- **Industrial Field**: Raw material for synthetic resin and plastic additives; fragrance for tobacco and e-cigarette liquid formulations.

5. Usage Methods

Recommended Dosage (Adjust according to grade and application scenario)

- **Food & Beverage**: 0.001 ~ 0.05% of total formulation (beverage/dairy); 0.01 ~ 0.1% (candy/pastry); follow FEMA maximum use level.
- **Cosmetic & Personal Care**: 0.1 ~ 3.0% of total formulation (perfume/lotion); 0.05 ~ 1.0% (shampoo/body wash).
- **Flavor & Fragrance**: 5 ~ 20% of total essence formulation (as aroma ingredient/fragrance fixative).
- **Daily Chemical & Industrial**: 0.05 ~ 2.0% (air freshener/candle); 0.1 ~ 1.0% (tobacco/e-cigarette liquid).

Key Application Tips

1. **Mixing & Addition**: At room temperature, mix with organic solvent (ethanol/propylene glycol) first and then add to the target system; direct mixing with oil-based formulations is available without dilution.
2. **Temperature Control**: Avoid heating above 80℃ for a long time to prevent slight volatilization of aroma; no high-temperature sterilization for flavor formulations (add after cooling).
3. **Compatibility Note**: Stable in neutral/weak acidic systems (pH 5.0 ~ 7.5); avoid strong alkaline (pH > 9.0) environments to prevent hydrolysis.
4. **Fragrance Blending**: Blends well with linalool, benzyl acetate, cinnamaldehyde and vanilla extract to enhance the layering of aroma.

6. Packaging & Storage

Packaging Specifications (Sealed Food/Cosmetic Grade Packaging)

- 500 mL brown glass bottle (inner) + carton (outer) (laboratory/R&D/small-batch use)
- 25 kg HDPE plastic drum (cosmetic/industrial grade use)
- 200 kg galvanized iron drum (flavor/food grade bulk use)
- 1000 kg IBC tote (large-scale flavor & fragrance manufacturing use)
- Custom packaging available (100g/250g small glass bottle for cosmetic formulation).

Storage Conditions

1. Store in a **cool, dark, well-ventilated warehouse** at 5 ~ 30℃; avoid direct sunlight, high temperature (>35℃) and open fire.
2. Keep the container tightly sealed with an airtight cover to prevent product volatilization, oxidation and odor mixing.
3. Store separately from strong oxidants, strong alkalis, strong acids and odorous substances; isolation distance ≥1m; no smoking in the storage area.

7. Safety & Protection

1. The product is low-irritating; a small number of sensitive individuals may have mild skin/eye irritation after direct contact; avoid prolonged contact and inhalation of high-concentration vapor.
2. **Recommended PPE**: Wear nitrile rubber gloves and safety glasses for large-scale handling; a dust/mist mask is optional for operation in poor ventilation; no special PPE for small-batch formulation.