

## Technical Data Sheet (TDS)

### - Hexylcinnamic Aldehyde

**Revision Date:** 28 February 2026 **Product Number:** HCA-20260228 **CAS Number:** 101-86-0 **Molecular Formula:** C<sub>15</sub> H<sub>22</sub>O **Molecular Weight:** 218.34 g/mol

### 1. Product Overview

Hexylcinnamic Aldehyde (also named α-Hexylcinnamaldehyde) is a high-purity synthetic floral fragrance raw material, the core component of jasmine fragrance. It features a strong, long-lasting jasmine-like floral aroma with mild woody undertones, excellent stability and compatibility with other fragrance ingredients. It is widely used in perfume, cosmetics, household care products and industrial fragrance formulation, with low volatility and sustained fragrance release. The product complies with IFRA fragrance ingredient standards and is suitable for various fragrance systems.

### 2. Technical Specifications

Item	Specification (Industrial Grade)
Appearance	Colorless to pale yellow clear liquid
Assay (GC)	≥ 98.0%
Odor	Characteristic jasmine-like floral scent
Boiling Point	290-295°C
Flash Point (Closed Cup)	≥ 130°C
Refractive Index (25°C)	1.5580-1.5620
Relative Density (25/25°C)	0.940-0.946
Water Content	≤ 0.3%
Residue on Evaporation	≤ 0.1%
Heavy Metals (Pb)	≤ 5 ppm
Heavy Metals (As)	≤ 1 ppm
Solubility	Miscible with ethanol, ether, vegetable oil, propylene glycol; insoluble in water
Stability	Stable at 0-40°C, pH 4.0-9.0

### 3. Product Advantages

- High Purity & Aroma Quality:** Assay ≥98%, pure jasmine floral aroma, no off-odor, stable fragrance performance.
- Excellent Compatibility:** Miscible with most organic solvents and fragrance raw materials, easy to formulate, no phase separation.
- Long-Lasting Fragrance:** Low volatility, sustained release, fragrance retention up to 48 hours in finished products.
- Good Stability:** Resistant to high temperature (≤100°C) and normal pH range, no aroma degradation or discoloration.
- IFRA Compliant:** Meets International Fragrance Association standards, safe for daily chemical application.

### 4. Application Fields



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- **Perfume & Cosmetics:** Perfumes, eau de toilette, skin care cream, lotion, shampoo, conditioner, body wash, soap.
- **Household Care:** Laundry detergent, fabric softener, air freshener, dish soap, household cleaner, candle.
- **Industrial Fragrances:** Plastic products, rubber products, coating, textile printing and dyeing, paper product fragrance addition.
- **Other:** Aromatherapy products, car fragrance, cosmetic raw material blending.

### 5. Usage Methods

- **Dosage:** Adjust according to application scenario and formula requirements; general addition amount: 0.5-8.0% (by weight) for daily chemicals; 1.0-10.0% (by weight) for perfume formulations.
- **Mixing Method:** Add directly to the formula system at room temperature (20-30°C), stir evenly for 5-10 minutes to ensure full dissolution; no pre-dilution required for most systems.
- **Optimal Conditions:** Avoid direct sunlight and high temperature (>80°C) during use; store the diluted product in a sealed container to prevent volatilization.

### 6. Packaging & Storage

#### Packaging Specifications

- 500 mL brown glass bottle (laboratory/small batch use)
- 5 kg brown glass drum (sample/medium batch use)
- 20 kg HDPE plastic drum (industrial use)
- 200 kg stainless steel drum (bulk use)
- Custom packaging available upon request.

#### Storage Conditions

- Store in a cool, dark, well-ventilated warehouse at **5-25°C**; avoid direct sunlight, high temperature (>30°C) and freezing (<0°C).
- Keep container tightly sealed to prevent volatilization and oxidation; separate from strong acids, strong bases, oxidizing agents and reducing agents.
- **Shelf Life:** 24 months (unopened, under specified storage conditions).

#### Transportation

- Classified as **non-hazardous goods** for transport; transport by ordinary closed vehicles.
- Avoid collision, leakage, direct sunlight and high temperature during transportation; prevent contact with incompatible materials.

### 7. Safety & Protection

- The product is low-toxic, but avoid direct contact with eyes and prolonged skin contact; mild irritation may occur in sensitive individuals.
- Wear safety glasses and nitrile rubber gloves during large-scale handling and dispensing.
- In case of eye contact: rinse with plenty of running water for 5-10 minutes; consult a doctor if irritation persists.
- In case of skin contact: rinse with soap and water; apply mild emollient if redness or itching occurs.
- Do not ingest; if accidentally swallowed, rinse mouth with water and consult a doctor if gastrointestinal discomfort occurs.