

Technical Data Sheet (TDS)

- Hydroxyisohexyl-3-Cyclohexen

Revision Date: 20 February 2026 **Product Number:** HICH-20260220 **CAS Number:** 31906-04-

4Molecular Formula: C₁₂H₂₂O **Molecular Weight:** 182.30 g/mol

1. Product Overview

Hydroxyisohexyl-3-Cyclohexen is a high-purity synthetic fragrance intermediate and flavor & fragrance raw material. It features a mild, long-lasting floral and wooden aroma, with excellent stability and compatibility with other fragrance ingredients. It is widely used in the formulation of perfumes, cosmetics, household care products, and industrial fragrances, and can also be used as a modifier for food flavors (food grade grade available). The product has good thermal stability and low volatility, ensuring a sustained fragrance release effect.

2. Technical Specifications

Item	Specification (Industrial Grade)	Specification (Food Grade)
Appearance	Colorless clear liquid	Colorless clear liquid
Assay (GC)	≥ 98.0%	≥ 99.0%
Odor	Characteristic floral/wooden scent	Neutral characteristic scent, no off-odor
Boiling Point	190-200°C	192-198°C
Refractive Index (25°C)	1.4600-1.4700	1.4620-1.4680
Relative Density (25/25°C)	0.920-0.930	0.922-0.928
Water Content	≤ 0.5%	≤ 0.3%
Heavy Metals (Pb)	≤ 10 ppm	≤ 5 ppm
Heavy Metals (As)	≤ 1 ppm	≤ 0.5 ppm
Residue on Evaporation	≤ 0.1%	≤ 0.05%
Flash Point (Closed Cup)	≥ 70°C	≥ 75°C
Solubility	Miscible with ethanol, ether, vegetable oil; slightly soluble in water	Miscible with ethanol, propylene glycol; slightly soluble in water

3. Product Advantages

- High Purity:** Assay ≥98% (industrial grade) / ≥99% (food grade), low impurities, no adverse effect on formula stability.
- Excellent Aroma:** Mild floral-wooden note, long-lasting fragrance, suitable for various fragrance systems.
- Good Compatibility:** Miscible with most organic solvents and fragrance raw materials, easy to formulate.
- Stable Performance:** Resistant to high temperature (≤100°C) and normal pH (4.0-9.0), no aroma loss or degradation.



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5. **Dual Grade Available:** Industrial grade for daily chemicals/industry; food grade compliant with food additive standards for flavor formulation.

4. Application Fields

- **Perfume & Cosmetics:** Perfumes, eau de toilette, skin care products, hair care products, body wash, soap.
- **Household Care:** Laundry detergent, fabric softener, air freshener, dish soap, household cleaner.
- **Food Flavors:** Modifier for bakery, beverage, candy, dairy product flavors (food grade only).
- **Industrial Fragrances:** Plastic products, rubber products, coating, textile printing and dyeing fragrance addition.

5. Usage Methods

- **Dosage:** Adjust according to application scenario and formula requirements; general addition amount: 0.1-5.0% (by weight) for daily chemicals; 0.01-0.5% (by weight) for food flavors (food grade).
- **Mixing Method:** Add directly to the formula system under room temperature (20-30°C), stir evenly for 5-10 minutes to ensure full dissolution.
- **Optimal Conditions:** Store the diluted product in a sealed container; avoid high temperature (>80°C) and strong light during use to prevent aroma degradation.

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 grade) / stainless steel drum (food grade)
- 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 contamination; separate from strong acids, strong bases and oxidizing agents.
- **Shelf Life:** 24 months (unopened, under specified storage conditions) for industrial grade; 18 months for food grade.

Transportation

- Classified as **non-hazardous goods** for transport; transport by ordinary closed vehicles.
- Avoid collision, leakage, direct sunlight and high temperature during transportation; food grade products shall be transported separately from non-food grade chemicals.

7. Safety & Protection

- The product is non-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; no special treatment needed for mild contact.
- Do not ingest; if accidentally swallowed, rinse mouth with water and consult a doctor if discomfort occurs.