

## Technical Data Sheet (TDS)

### - Isoeugenol

**Product Number:** IE-20260222 | **CAS No.:** 97-54-1 | **Revision Date:** 22 FEB 2026 **Brand:** SIGALD |

**Molecular Formula:** C<sub>10</sub> H<sub>12</sub>O<sub>2</sub> | **Molecular Weight:** 164.20 g/mol

### 1. Product Overview

Isoeugenol is a naturally occurring phenylpropene compound and a structural isomer of eugenol. It is a pale yellow clear liquid with a rich, warm clove, woody, and floral aroma. Manufactured to a purity of ≥99.0%, it is a high-value raw material widely used in the fragrance, flavor, pharmaceutical, and chemical industries. It is particularly valued for its fixative properties in perfumery and as a key intermediate for the synthesis of vanillin.

**Core Characteristics:** High purity (99.3%); strong clove/woody odor; excellent fragrance fixative; low volatility; good chemical reactivity; GRAS status for food use; stabilized with BHT to prevent oxidation.

### 2. Technical Specifications

Item	Specification	Test Result
Appearance	Pale yellow clear liquid	Conforms
Assay (Isoeugenol)	≥99.0%	99.3%
Eugenol Content	≤0.5%	0.2%
Refractive Index (20°C)	1.5730 - 1.5770	1.5751
Relative Density (20/20°C)	1.083 - 1.089	1.086
Acid Value	≤1.0 mg KOH/g	0.3 mg KOH/g
Water Content	≤0.1%	0.04%
Flash Point	≥120°C	128°C
Heavy Metals (Pb)	≤5 ppm	0.6 ppm

### 3. Product Advantages

- Superior Fragrance Profile:** Possesses a deeper, less pungent clove aroma compared to eugenol, with excellent fixative properties that extend the longevity of fragrances.
- High Purity & Consistency:** Low eugenol content ensures a stable odor profile, critical for high-end fragrance and flavor applications.
- Versatile Reactivity:** Serves as a key intermediate for the industrial synthesis of vanillin, the world's most popular flavor compound.
- Safety & Compliance:** Meets strict global standards (FDA GRAS, EU REACH) for use in food, cosmetics, and fragrances.
- Oxidation Resistant:** Stabilized formulation prevents darkening and degradation during storage.

### 4. Application Fields

#### 4.1 Flavor & Fragrance

- Perfumery:** A staple in oriental, spicy, woody, and chypre fragrances. Used as a base note and fixative in perfumes, soaps, and candles.
- Food Flavors:** Approved for use in food (FEMA GRAS 2468). Imparts clove, nutmeg, and cinnamon notes to baked goods, confectionery, and beverages.

#### 4.2 Pharmaceutical & Cosmetics



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- **Pharmaceuticals:** Intermediate for the synthesis of various drugs and as an ingredient in dental care products for its mild antiseptic properties.
- **Cosmetics:** Used in skincare and haircare products for its fragrance and potential antioxidant benefits (use levels strictly controlled due to sensitization potential).

### 4.3 Chemical Synthesis

- **Vanillin Production:** The primary industrial raw material for the synthesis of vanillin, used globally in food and beverage flavors.
- **Fine Chemicals:** Precursor for the synthesis of other valuable aromatic compounds.

### 5. Usage Methods & Dosage

- **General:** Always pre-dissolve in ethanol or propylene glycol before adding to water-based formulations to ensure homogeneity.
- **Recommended Dosage (w/w):**
  - **Perfume Formulation:** 1-10%
  - **Cosmetic Fragrance:** 0.05-0.5%
  - **Food Flavor:** 0.001-0.01% (strictly follow FEMA/GB limits)
  - **Chemical Synthesis:** As per reaction stoichiometry

### 6. Packaging & Storage

- **Packaging:**
  - Small Scale: 100mL, 500mL dark glass bottles.
  - Commercial: 5kg, 25kg HDPE drums.
  - Bulk: 200kg HDPE drums, 1000kg IBC totes.
- **Storage:** Store in a cool, dry, dark warehouse at  $\leq 25^{\circ}\text{C}$ . Keep containers tightly sealed and protected from light and heat.
- **Shelf Life:** **24 months** unopened. Use within 6 months of opening and store under nitrogen if possible.
- **Transport:** Class 9 Miscellaneous Dangerous Good. Protect from freezing and direct sunlight during transit. Do not ship with oxidizers or food.

### 7. Quality Assurance

- Manufactured under **ISO 9001** and **ISO 14001** certified systems.
- Each batch is tested by **Gas Chromatography (GC)** and accompanied by a **Certificate of Analysis (COA)**.
- Complies with FDA (GRAS), EU (REACH), and Chinese National Standards for food and cosmetic ingredients.

### 8. Contact Information

- **Supplier:** NEWAY SINOPHC TECH. LIMITED
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- **Tel:** +86-021-50350029 | **Fax:** +86-021-50350029
- **Technical Support:** Our team of chemists provides formulation support and regulatory guidance for all applications.