



# NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.  
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## Safety Data Sheet (MSDS)

### - Benzyl Cinnamate

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards) **Product**

**Name:** Benzyl Cinnamate **Revision Date:** 22 FEB 2026

### SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product Identifiers

- Product Name: Benzyl Cinnamate
- Synonyms: Benzyl 3-phenylpropenoate; Cinnamic acid benzyl ester
- Product Number: BC-20260222
- Brand: SIGALD
- CAS-No.: 103-41-3
- MDL Number: MFCD00004469
- Formula: C<sub>16</sub> H<sub>14</sub>O<sub>2</sub>
- Molecular Weight: 238.28 g/mol

#### 1.2 Details of the supplier of the safety data sheet

- Company: NEWAY SINOPHC TECH. LIMITED
- Address: RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE
- Telephone: +86-021-50350029
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#### 1.3 Emergency telephone

- Emergency Phone #: +86-021-50350029 (CHEMTREC)

#### 1.4 Relevant Identified Uses and Uses Advised Against

- **Identified Uses:** Fragrance & flavor industry raw material; cosmetic formulation ingredient; soap & candle fragrance; pharmaceutical intermediate; plastic rubber softener.
- **Uses Advised Against:** Direct oral consumption in large quantities; unapproved medical injection use; use in infant cosmetics (0-3 years old) without formulation approval.

### SECTION 2: Hazards Identification

#### 2.1 GHS Classification

- Eye Irritation, Category 2 (H319)
- Aquatic Acute Toxicity, Category 3 (H402)
- Aquatic Chronic Toxicity, Category 3 (H412)

#### 2.2 GHS Label Elements

- **Hazard Pictograms:** (Exclamation mark)
- **Signal Word:** Warning
- **Hazard Statements:**
  - H319: Causes serious eye irritation
  - H402: Harmful to aquatic life
  - H412: Harmful to aquatic life with long-term effects
- **Precautionary Statements:**
  - P264: Wash hands thoroughly after handling
  - P273: Avoid release to the environment
  - P280: Wear protective gloves/eye protection
  - P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P337+P313: If eye irritation persists: Get medical advice/attention
  - P391: Collect spillage
  - P501: Dispose of contents/container to an approved waste disposal plant

## 2.3 Physical and Chemical Hazards

Non-flammable under normal conditions; no explosive, corrosive or oxidizing hazards; no polymerization risk.

## 2.4 Health Hazards

- Acute: Causes serious eye irritation; inhalation of high-concentration dust may cause mild respiratory tract irritation; no skin irritation for normal contact.
- Chronic: No known chronic toxic effects with normal industrial and cosmetic use; no target organ damage.

## 2.5 Environmental Hazards

Harmful to aquatic organisms with acute and long-term effects; low bioaccumulation potential in aquatic food chains; no obvious harm to soil microorganisms.

## 2.6 Other Hazards

No additional hazards identified.

## SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture:** Pure substance
- **Active Ingredient:** Benzyl Cinnamate (100%, CAS 103-41-3)
- **Hazardous Ingredients:** Benzyl Cinnamate (only hazardous ingredient, concentration 98.5-99.5%)

## SECTION 4: First Aid Measures

### 4.1 Description of First-Aid Measures

- **If Inhaled:** Move victim to fresh air, keep at rest in a comfortable breathing position. If cough or chest tightness occurs, consult a doctor.
- **In Case of Skin Contact:** Rinse skin with plenty of running water for 5 minutes; remove contaminated clothing and wash before reuse. No special treatment for normal contact.
- **In Case of Eye Contact:** Rinse eyes thoroughly with plenty of running water for 15-20 minutes; remove contact lenses if present and easy to do. Consult a doctor immediately if irritation persists.
- **If Swallowed:** Rinse mouth with water; do not induce vomiting. Call a poison center or doctor if gastrointestinal discomfort (nausea, abdominal distension) occurs.

### 4.2 Most Important Symptoms and Effects

- Acute: Eye redness, pain, tearing; mild cough (high-concentration dust inhalation); no obvious skin reaction.
- Delayed: No known delayed toxic effects with normal exposure.

### 4.3 Indication of Immediate Medical Attention

Seek medical attention for severe eye irritation, persistent respiratory symptoms or accidental large-volume ingestion.

### 4.4 Notes to Physician

Treat symptomatically; inform the physician of the product name and CAS number (103-41-3).

## SECTION 5: Firefighting Measures

### 5.1 Extinguishing Media

- **Suitable:** Water spray, dry powder, carbon dioxide (CO<sub>2</sub>), foam.
- **Unsuitable:** No limitations of extinguishing agents.

### 5.2 Special Hazards Arising from the Substance

High-temperature combustion may produce carbon oxides (CO, CO<sub>2</sub>) and slight aromatic fumes; no other hazardous combustion products.

### 5.3 Advice for Firefighters

- Wear standard fire-fighting gear (helmet, fire suit, self-contained breathing apparatus) to avoid inhalation of combustion fumes and dust.



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- Cool containers with water spray if exposed to fire; fight fire from a safe distance.

## SECTION 6: Accidental Release Measures

### 6.1 Personal Precautions

- Wear nitrile rubber gloves, chemical safety goggles and disposable dust mask when cleaning up spills.
- Ensure good ventilation in the spill area; avoid inhalation of dust and eye contact.

### 6.2 Environmental Precautions

- Prevent spilled powder from entering drains, sewers, rivers or other water bodies; cover spilled powder to avoid spreading with wind.

### 6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill:** Sweep up with a clean brush/spatula, transfer to a sealed dry container for reuse or disposal; wipe the area with a damp cloth to avoid dust.
- **Large Spill:** Contain with inert material (sand, vermiculite), collect into sealed drums, and dispose of in accordance with local regulations; do not flush with water directly.

### 6.4 Reference to Other Sections

For disposal, see Section 13.

## SECTION 7: Handling and Storage

### 7.1 Precautions for Safe Handling

- Operate in a well-ventilated area; use dust-free operation to avoid inhalation of crystalline powder.
- Wear personal protective equipment (PPE) as recommended in Section 8; avoid eye contact.
- Do not eat, drink or smoke during handling; wash hands thoroughly with soap and water after operation.
- Avoid contact with strong oxidizing agents and strong acids to prevent product degradation.

### 7.2 Conditions for Safe Storage

- **Storage Conditions:** Store in a cool, dry, well-ventilated warehouse at 15-25°C; keep container tightly sealed to prevent moisture absorption and dust contamination; avoid direct sunlight and high temperature (>30°C).
- **Incompatibilities:** Strong oxidizing agents (hydrogen peroxide, potassium permanganate), concentrated mineral acids, strong bases.
- **Storage Class (TRGS 510):** 11 (Non-flammable Solids)
- **Shelf Life:** 24 months (unopened, under specified storage conditions)

## SECTION 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters

- **Occupational Exposure Limit (OEL):** No national/international unified OEL; TWA: 10 mg/m<sup>3</sup> (respirable dust, recommended value)

### 8.2 Exposure Controls

- **Engineering Controls:** Install local exhaust ventilation and dust collection equipment at operation points; use closed-loop equipment for large-scale production.
- **Personal Protective Equipment (PPE):**
  - Eye/Face Protection: Chemical safety goggles (prevent powder from entering eyes)
  - Skin Protection: Nitrile rubber gloves (thickness ≥ 0.11 mm), ordinary protective clothing
  - Respiratory Protection: N95 dust mask for routine handling; no respiratory protection needed under well-ventilated conditions
  - Hand Protection: Nitrile rubber gloves (replace if damaged or contaminated)

### 8.3 Hygiene Measures

- Provide eye wash facilities in the workplace; wash hands with soap and water after handling.



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- Avoid touching eyes, mouth and nose with contaminated hands; change contaminated clothing immediately.

## SECTION 9: Physical and Chemical Properties

1. Physical State: White crystalline powder/flakes
2. Color: White to off-white
3. Odor: Mild, sweet floral (jasmine-like) fragrance with balsamic notes
4. Melting Point: 34.0-38.0°C
5. Boiling Point: 350°C (760 mmHg); 200°C (10 mmHg)
6. Flash Point: > 180°C (Closed Cup)
7. Autoignition Temperature: > 450°C
8. Relative Density (25/25°C): 1.10 g/cm<sup>3</sup> (solid)
9. Solubility: Soluble in ethanol, ether, benzene, vegetable oil; slightly soluble in water (<0.01 g/100 mL at 25°C)
10. Vapor Pressure (25°C): < 0.0001 hPa
11. Particle Size: 60-80 mesh (standard grade, customizable)
12. Acid Value: ≤ 1.0 mg KOH/g
13. Decomposition Temperature: > 300°C (slight thermal decomposition)
14. Hardness: Soft crystalline solid

## SECTION 10: Stability and Reactivity

### 10.1 Chemical Stability

Stable under normal storage and handling conditions (cool, dry, sealed).

### 10.2 Possibility of Hazardous Reactions

No hazardous reactions under normal use conditions; no polymerization occurs.

### 10.3 Conditions to Avoid

High temperature (>30°C), direct sunlight, prolonged contact with strong oxidizing agents/acids, high humidity (moisture absorption).

### 10.4 Incompatible Materials

Concentrated sulfuric acid, nitric acid, hydrogen peroxide, potassium permanganate, concentrated sodium hydroxide solution.

### 10.5 Hazardous Decomposition Products

Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) (high-temperature combustion); no other toxic decomposition products.

## SECTION 11: Toxicological Information

### 11.1 Information on Toxicological Effects

- **Acute Toxicity:**
  - Oral (Rat, LD<sub>50</sub>): 5000 mg/kg
  - Dermal (Rabbit, LD<sub>50</sub>): > 10000 mg/kg
  - Inhalation (Rat, LC<sub>50</sub>): > 10 mg/m<sup>3</sup> (4-hour exposure, dust)
- **Skin Corrosion/Irritation:** No skin irritation (Rabbit, 4-hour exposure)
- **Serious Eye Damage/Eye Irritation:** Category 2, causes serious eye irritation (Rabbit, 24-hour exposure)
- **Skin/Respiratory Sensitization:** No sensitizing effects (Guinea pig test)
- **Germ Cell Mutagenicity:** Negative (Ames test, in vitro)
- **Carcinogenicity:** Not classified as carcinogenic (IARC Group 3)
- **Reproductive Toxicity:** No reproductive toxicity (Rat test, normal dosage)
- **Specific Target Organ Toxicity:** No target organ toxicity with normal exposure

## SECTION 12: Ecological Information

## 12.1 Toxicity

- Fish (Zebrafish, LC<sub>50</sub>): 38 mg/L (96-hour exposure)
- Daphnia (EC<sub>50</sub>): 25 mg/L (48-hour exposure)
- Algae (EC<sub>50</sub>): 42 mg/L (72-hour exposure)

## 12.2 Persistence and Degradability

Biodegradable (BOD<sub>5</sub>/COD = 0.59) in natural aquatic environments; degradation rate > 65% in 28 days.

## 12.3 Bioaccumulative Potential

Low bioaccumulation potential (BCF < 180, fish test); no biomagnification in aquatic food chains.

## 12.4 Mobility in Soil

Low mobility in soil; binds to soil organic matter (K<sub>oc</sub> = 450).

## 12.5 PBT/vPvB Assessment

Not classified as PBT/vPvB (meets biodegradability criteria).

## 12.6 Other Adverse Effects

Harmful to aquatic invertebrates; no adverse effects on soil microorganisms and plants at normal dosage.

## SECTION 13: Disposal Considerations

### 13.1 Waste Treatment Methods

- **Product Waste:** Unused or contaminated benzyl cinnamate shall be disposed of to licensed waste treatment facilities in accordance with local/national/international regulations; do not dump into the environment.
- **Packaging Waste:** Rinse packaging with ethanol for residual removal, then dispose of as non-hazardous packaging waste or recycle after professional decontamination.
- **Spilled Waste:** Collect all spilled material and dispose of as product waste; do not mix with domestic waste.

### 13.2 Disposal Notes

Comply with China's Solid Waste Pollution Control Law and EU REACH waste disposal regulations; avoid environmental release during disposal.

## SECTION 14: Transport Information

### 14.1 UN Number

ADR/RID: -; IMDG: -; IATA-DGR: -

### 14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods; IMDG: Not dangerous goods; IATA-DGR: Not dangerous goods

### 14.3 Transport Hazard Class(es)

ADR/RID: -; IMDG: -; IATA-DGR: -

### 14.4 Packaging Group

ADR/RID: -; IMDG: -; IATA-DGR: -

### 14.5 Environmental Hazards

ADR/RID: No; IMDG Marine Pollutant: No; IATA-DGR: No

### 14.6 Special Precautions for User

- Transport in sealed, moisture-proof HDPE plastic drums or paper composite bags with plastic lining; mark product information and hazard warnings clearly on the package.
- Avoid collision, extrusion, rain, moisture and direct sunlight during transport; keep away from strong oxidizing agents and acids.
- Transport by ordinary vehicles; no mixed transport with food, beverages, drugs and infant products.

## SECTION 15: Regulatory Information

### 15.1 National and International Regulations

- **China:** GB 2760-2021 (approved food flavor additive); Cosmetic Safety Technical Specification (2015 version, approved for cosmetic use); GB/T 16483-2008 (MSDS compliance)
- **EU:** REACH (registered); CLP (GHS classification as H319, H402, H412); Cosmetics Regulation (EC 1223/2009, approved for cosmetic use)
- **US:** TSCA (listed on inventory); FDA (approved for food flavor use)
- **International:** GHS Rev.9 (classification compliance); IFRA (International Fragrance Association) standards (approved for fragrance use)

### 15.2 Other Regulations

Comply with local fragrance and cosmetic raw material safety standards; comply with aquatic environmental protection regulations.

## SECTION 16: Other Information

- **Further Information:** This MSDS is based on current scientific and regulatory information, complying with GB/T 16483, GB/T 17519, GHS, IMDG and IATA standards. It is for safe handling, storage, transport and disposal of the product. The supplier is not liable for damage caused by improper use or non-compliance with safety precautions.
- **Revision Note:** This is the first revision of the MSDS for Benzyl Cinnamate (CAS 103-41-3) of brand SIGALD.