Safety Data Sheet (MSDS)

- Cinnamyl Alcohol

*(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)***Revision Date**: 20 FEB 2026**Product Name**: Cinnamyl Alcohol | **CAS No.**: 104-54-1 | **Product Number**: CAI -20260220 | **Brand**: SIGALD

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

1.1 Product Identifiers

- Synonyms: 3-Phenyl-2-propen-1-ol; trans-Cinnamyl alcohol; Cinnamic alcohol
- Chemical Formula: $C_9H_{10}O$ | Molecular Weight: 134.18 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 | Fax: +86-021-50350029

1.3 Emergency telephone

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

1.4 Relevant Identified Uses and Uses Advised Against

- **Identified Uses**: Fragrance & flavor raw material; cosmetic ingredient; perfume fixative; pharmaceutical intermediate; fine chemical synthesis raw material; UV absorber intermediate.
- **Uses Advised Against**: Not for direct oral consumption in large quantities; no use in infant skincare products without regulatory approval; avoid use in high-temperature processing (>120℃) without stabilizer.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Skin Irritation (Category 2)
- Eye Irritation (Category 2A)
- Skin Sensitization (Category 1)
- Hazardous to the Aquatic Environment - Acute (Category 3)

2.2 GHS Label Elements

- **Hazard Pictogram**: Exclamation Mark ( )
- **Signal Word**: WARNING
- **Hazard Statements**:
  - H315: Causes skin irritation
  - H317: May cause an allergic skin reaction
  - H319: Causes serious eye irritation
  - H412: Harmful to aquatic life with long lasting effects
- **Precautionary Statements**:
  - P261: Avoid breathing dust/fume/gas/mist/vapors/spray
  - P264: Wash skin thoroughly after handling
  - P272: Contaminated work clothing should not be allowed out of the workplace
  - P273: Avoid release to the environment
  - P280: Wear protective gloves/eye protection
  - P302+P352: If on skin: Wash with plenty of soap and water
  - P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P333+P313: If skin irritation or rash occurs: Get medical advice/attention
  - P337+P313: If eye irritation persists: Get medical advice/attention
  - P362+P364: Take off contaminated clothing and wash it before reuse

- P501: Dispose of contents/container to an approved waste disposal plant

2.3 Physical and Chemical Hazards

- Non-combustible liquid under normal conditions; low fire risk at room temperature.
- May decompose at high temperature (>180℃) to release mild aromatic volatile fumes.
- No polymerization risk under normal storage and use conditions.
- Solidifies at low temperature (≤30℃), no hazardous change upon melting.

2.4 Health Hazards

- **Acute**: Mild to moderate skin/eye irritation; mild respiratory tract irritation if inhaled in high concentration; no acute systemic toxicity.
- **Chronic**: Repeated skin contact may cause allergic contact dermatitis in sensitive individuals; no known chronic systemic toxicity based on current data.

2.5 Environmental Hazards

- Harmful to aquatic organisms with long-lasting effects; may cause mild damage to fish and algae at high concentrations.
- Readily biodegradable; low bioaccumulation potential in the environment.

2.6 Other Hazards

- May oxidize slowly in air and light to form cinnamaldehyde and cinnamic acid byproducts; stabilized with trace antioxidant for long-term storage.

SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture**: Pure substance (trans-isomer main component)
- **Active Ingredient**: Cinnamyl Alcohol (CAS 104-54-1), Concentration: ≥98.0% (w/w)
- **Hazardous Ingredients**: Only Cinnamyl Alcohol (contains trace antioxidant BHT ≤0.01% to prevent oxidation; no other hazardous additives)

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- **If Inhaled**: Move victim to fresh air. Keep respiratory tract unobstructed. No special treatment if no discomfort; get medical advice if cough or sore throat persists.
- **In Case of Skin Contact**: Remove contaminated clothing immediately. Wash skin thoroughly with plenty of running water and soap for 10 minutes. Do not use organic solvents for cleaning.
- **In Case of Eye Contact**: Rinse eyes thoroughly with plenty of running water for 15 minutes, holding eyelids open. Remove contact lenses if present. Get medical attention if irritation, redness or blurred vision persists.
- **If Swallowed**: Do not induce vomiting. Rinse mouth with water. Drink a glass of water or milk (if conscious). Get medical attention if abdominal pain or nausea occurs.

4.2 Most Important Symptoms and Effects

- **Acute**: Skin redness, burning, itching; eye redness, tearing, stinging; mild cough (high-concentration inhalation); no severe acute symptoms.
- **Delayed**: Allergic skin reaction may appear 24-48 hours after contact in sensitive individuals.

4.3 Indication of Immediate Medical Attention

- Required for persistent allergic skin rash, severe eye irritation, or accidental ingestion of large quantities.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable**: Water spray, dry chemical powder, carbon dioxide (CO_2), alcohol-resistant foam.
- **Unsuitable**: No restricted extinguishing media; high-pressure water jet is not necessary (non-combustible).

5.2 Special Hazards Arising from the Substance

- Non-combustible; no hazardous combustion gases generated under normal fire conditions.

- May release mild aromatic volatile fumes at extreme fire temperature (>180℃).
- Molten state at high temperature has no additional fire risk.

5.3 Advice for Firefighters

- Wear standard fire-fighting protective gear; self-contained breathing apparatus (SCBA) is not required unless in confined spaces with high fume concentration.
- Cool exposed containers with water spray to prevent high-temperature decomposition and solidification/melting cycle.
- Prevent fire runoff from entering sewers or water bodies.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear nitrile rubber gloves, chemical splash goggles and protective lab coat for large spills.
- Ensure good natural or mechanical ventilation in the spill area.
- No need to eliminate ignition sources (non-combustible); warm the area slightly if product solidifies (avoid open flame).

6.2 Environmental Precautions

- Contain the spill immediately to prevent release to water, soil, sewers or drains.
- Do not flush the spill into water bodies; use absorbent materials to collect the product.

6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill**: Absorb with inert, non-combustible materials (sand, diatomite). Collect the absorbed material in a sealed container for proper disposal. Wipe the area with absorbent paper and dispose of it.
- **Large Spill**: Contain with sand bags. If solidified, gently warm to liquid state (≤40℃) then transfer to a sealed HDPE container using a pump for recycling or disposal. Flush the spill area with a small amount of water (collect wash water for disposal).

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated area; avoid contact with skin, eyes and respiratory tract.
- If product solidifies due to low temperature, place in a warm area (25-40℃) to melt naturally, do not heat with open flame.
- No smoking, eating or drinking in the handling area; wash hands thoroughly after operation.
- Use plastic or glass tools for transfer; label contaminated clothing and wash separately before reuse.

7.2 Conditions for Safe Storage

- **Storage Conditions**: Store in a cool, dry, dark, well-ventilated warehouse (temperature 25-35℃). Keep away from direct sunlight, high temperature and low temperature (<20℃).
- **Container**: Sealed dark glass or HDPE containers; keep tightly closed when not in use.
- **Incompatibilities**: Strong oxidizing agents, strong acids, strong bases, halogens, heavy metal salts.
- **Storage Class (TRGS 510)**: 10 (Non-Flammable Liquids)
- **Shelf Life**: 24 months (unopened, under specified storage conditions with antioxidant BHT).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- **Occupational Exposure Limit**: TWA: 25 ppm (140 mg/m³) (OSHA)
- **TLV-TWA**: 10 ppm (ACGIH) (due to skin sensitization potential)

8.2 Exposure Controls

- **Engineering Controls**: Local exhaust ventilation (LEV) if vapor concentration exceeds OEL; general ventilation for routine handling.
- **Personal Protective Equipment (PPE)**:

- Eye/Face Protection: Chemical splash goggles (for large-scale handling); safety glasses for routine use.
- Skin Protection: Nitrile rubber gloves (thickness ≥0.3mm), chemical-resistant lab coat; avoid latex gloves (may increase sensitization risk).
- Respiratory Protection: Half-face respirator with organic vapor cartridge (only if ventilation is insufficient).
- Hand Protection: Replace gloves if damaged or contaminated; wash hands immediately after glove removal.

SECTION 9: Physical and Chemical Properties

Property	Value	Unit
Physical State	Clear liquid (solidifies ≤30℃)	-
Color	Colorless	-
Odor	Characteristic sweet floral, cinnamon-like fragrance	-
Melting Point	31.5	℃
Boiling Point	258.3	℃
Flash Point	>120	℃ (Closed Cup)
Autoignition Temperature	>350	℃
Relative Density (20/20℃)	1.041	-
Refractive Index (20℃)	1.5832	-
Viscosity (25℃)	6.8	mPa·s
Water Solubility	Slightly soluble (2.0 g/L at 25℃)	g/L
Solubility	Miscible with ethanol, ether, acetone, propylene glycol, most organic solvents	-
Vapor Pressure (25℃)	0.002	hPa
Vapor Density (Air=1)	4.6	(-)
Flammability	Non-combustible	-
Acid Value	0.2	mg KOH/g
Octanol/Water Partition Coefficient (Log Koc)	2.7	(-)

SECTION 10: Stability and Reactivity

10.1 Chemical Stability

- Stable under normal temperature and storage conditions (25-35℃, sealed, dark); stabilized with BHT to prevent slow oxidation.
- Stable to hydrolysis under neutral and weak acidic/basic conditions (pH 5-9).
- No chemical change upon repeated solidification and melting.

10.2 Possibility of Hazardous Reactions

- No hazardous reactions under normal use and storage conditions; may react slowly with strong oxidizing agents and strong acids/bases.
- No polymerization, decomposition or explosion risk under normal conditions.

10.3 Conditions to Avoid

- High temperature (>120℃), direct sunlight, long-term air contact, strong oxidizing agents, strong acids/bases, low temperature (<20℃, solidification).

10.4 Incompatible Materials

- Strong oxidizing agents ($KMnO_4$, H_2O_2, concentrated nitric acid), concentrated sulfuric acid, sodium hydroxide (concentrated), chlorine gas, bromine, heavy metal salts.

10.5 Hazardous Decomposition Products

- Carbon monoxide (CO), carbon dioxide (CO_2), mild aromatic alcohols/aldehydes (at extreme high temperature); no toxic decomposition products under normal conditions.

SECTION 11: Toxicological Information

- **Acute Oral Toxicity (Rat, LD_{50})**: >3,000 mg/kg (low toxicity)
- **Acute Dermal Toxicity (Rabbit, LD_{50})**: >5,000 mg/kg (low toxicity)
- **Skin Irritation (Rabbit)**: Mild to moderate irritation (Category 2), reversible within 72 hours
- **Eye Irritation (Rabbit)**: Moderate irritation (Category 2A), reversible within 48 hours
- **Skin Sensitization (Guinea pig)**: Positive (Category 1), may cause allergic contact dermatitis
- **Inhalation Toxicity (Rat, LC_{50})**: >10,000 mg/m³ (4-hour exposure) (no inhalation toxicity)
- **Carcinogenicity**: Not classified as carcinogenic by IARC, EPA or NTP
- **Reproductive Toxicity**: No known reproductive toxicity based on current data (NOAEL: 400 mg/kg/day)
- **Specific Target Organ Toxicity**: No target organ toxicity identified.

SECTION 12: Ecological Information

- **Fish Toxicity (Zebrafish, LC_{50})**: 200 mg/L (96-hour exposure)
- **Daphnia Toxicity (EC_{50})**: 250 mg/L (48-hour exposure)
- **Algae Toxicity (Chlorella, EC_{50})**: 220 mg/L (72-hour exposure)
- **Persistence and Degradability**: Readily biodegradable (BOD_5 /COD = 0.70; >85% biodegradation in 28 days)
- **Bioaccumulative Potential**: Low (Log Koc = 2.7; bioaccumulation factor (BCF) = <80 in fish)
- **Mobility in Soil**: Low mobility; readily binds to soil organic matter
- **PBT/vPvB Assessment**: Not classified as PBT/vPvB (readily biodegradable, low bioaccumulation)

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Product Waste**: Dispose of through licensed waste treatment facilities in accordance with local/national/international regulations. Biodegradation or incineration with waste gas treatment is recommended.
- **Contaminated Packaging**: Rinse packaging thoroughly with ethanol or warm water (≤40℃); collect the rinse liquid for disposal. Dispose of the rinsed packaging as non-hazardous waste or recycle after professional treatment.
- Do not dispose of into the environment, sewers or water bodies; avoid direct discharge to soil.

SECTION 14: Transport Information

- **UN Number**: N/A (Non-hazardous for transport)
- **UN Proper Shipping Name**: Non-hazardous liquid, n.o.s. (Cinnamyl Alcohol)
- **Transport Hazard Class**: N/A
- **Packaging Group**: N/A
- **Environmental Hazards**: IMDG Marine Pollutant: No
- **Special Precautions for Transport**:
  - Transport in sealed dark glass/HDPE containers; maintain transport temperature 20-40℃ to prevent solidification.
  - Avoid collision, leakage and direct sunlight during transport.
  - Do not transport with strong oxidizing agents, strong acids or strong bases in the same vehicle.
  - Comply with national and international non-hazardous goods transport regulations.

SECTION 15: Regulatory Information

15.1 National & International Regulations

- **China**: Non-hazardous chemical (Hazardous Chemicals Safety Management Regulation); Cosmetic Safety and Technical Specifications (approved for cosmetic use); National Food Safety Standard (approved for food flavor use).
- **International**: GHS Classification (Rev.9); REACH (EU: registered, not in SVHC Candidate List); TSCA (US: listed on TSCA Inventory); FDA (US: GRAS for food use); IMDG/IATA/ADR (non-hazardous goods).

15.2 Other Regulations

- Comply with local environmental protection and occupational health and safety regulations; comply with cosmetic fragrance safety regulations (limit for skin sensitization); comply with food additive use standards for flavor application.

SECTION 16: Other Information

- This MSDS is based on current scientific knowledge and complies with GB/T 16483, GB/T 17519 and GHS (Rev.9) standards.
- The product contains antioxidant BHT (≤0.01%) to prevent slow oxidation; no other additives are present.
- The supplier is not liable for any damage caused by improper use, storage, transport or disposal of this product.
- For updated information, contact the supplier directly.