

Section 1. Product and Company Information

GHS Product Name: Cinnamaldehyde

Product Code: PHE-22-1000

CAS: [104-55-2]

Molecular Formula: C₉H₈O

(E)-3-phenylpro(E)-3-phenylprop-2-enal; Trans-Cinnamaldehyde; Cinnamic Aldehyde; Sinamaldehyda (INA)

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Section 2. Hazards Identification

2.1 GHS classification

PHYSICAL HAZARDS Not classified

HEALTH HAZARDS

Skin Irritation (Category 2), H315

Eye Irritation (Category 2A), H319

Skin Sensitisation (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

ENVIRONMENTAL HAZARDS Not classified

2.2 GHS label elements, including precautionary statements

Pictograms or hazard symbols



Signal word Warning

Hazard statements

H315 Causes skin irritation

H317 May cause an allergic

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary statements

| | |
|--------------------|--|
| P261 | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/eye protection. |
| P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for Breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312 | Call a POISON CENTER/doctor if you feel unwell. |
| P321 | Specific treatment (see supplemental first aid instructions on this label). |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/ attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

Section 3. Information on Basic Physical and Chemical Properties

| | |
|---|--|
| Physical States: | <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid |
| Melting Point: | -7.5°C (18.5°F) |
| Boiling Point: | 246.8±9.0°C at 760 mmHg |
| Flash Pt: | 71°C (159.8°F) |
| Evaporation Rate: | No data |
| Flammability (solid, gas): | No data available. |
| Explosive Limits: | LEL: No data. UEL: No data |
| Vapor Pressure (vs. Air or mm Hg): | 0.0±0.5 mmHg at 25°C |
| Vapor Density (vs. Air = 1): | 4.56 |
| Specific Gravity (Water = 1): | 1.05 |
| Solubility in Water: | 1.4 g/l at 25°C (Slightly soluble); 10 g/l at 27°C |
| Solubility Notes: | Soluble in DMSO; Alcohol |
| Autoignition Pt: | No data |
| Percent Volatile: | No data |
| Partition coefficient: | log Pow: 1.9 (n-Octanol/Water) |
| pH: | No data |

Section 4. First aid measures

Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see **section 2.2**).

Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

Suitable extinguishing

Media: Dry chemical, alcohol-resistant foam, water spray, carbon dioxide.

Do NOT use water jet.

Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

Special protective:

equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

General Information:

Use proper personal protective equipment as indicated in **Section 8**.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete.

Section 7. Handling and Storage

Precautions for safe handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

Storage:

Store in a well closed container. Store in cool place. Protected from air and light, refrigerate or freeze (2-8°C).

Store at -20°C.

Specific end uses

Use in a laboratory fume hood where possible. Refer to employer is COSHH risk assessment.

Section 8. Exposure Controls / Personal Protection

Engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Control parameters: Not set up

Personal protective equipment:

Respiratory protection: Dust respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Wear safety glasses and chemical goggles if splashing is possible.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Section 9. Stability and Reactivity

Reactivity

Stable under recommended transport or storage conditions.

Chemical Stability

Stable under normal temperatures and pressures.

Conditions to Avoid

Incompatible materials, strong oxidants, heat, flames, sparks.

Incompatibilities with Other Materials

Strong oxidising/reducing agents, strong acids/alkalis.

Hazardous Decomposition Products

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization

Has not been reported.

Section 10. Toxicological Information

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|---------------------------------------|--|
| Acute Toxicity: | LD50 Oral - Rat - 2200 mg/kg LD50 Dermal - Rabbit - Male and female - 1260 mg/kg |
| Skin corrosion/irritation: | Skin - Human Result: Severe skin irritation |
| Serious eye damage/irritation: | Eye - Rabbit Result: irritating Eye - Human Result: irritating |
| Germ cell mutagenicity: | Cytogenetic analysis (Hamster fibroblast) Morphological transformation (Hamster fibroblast) Sister Chromatid Exchange: Hamster ovary (RTECS) Micronucleus test (Rat) Micronucleus test (Mouse) |
| Carcinogenicity: | IARC = No data NTP = No data |
| Reproductive toxicity: | No data |

Section 11. Ecological Information

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|--|--|
| Toxicity: | No data |
| Persistence and degradability: | 100% - Readily biodegradable |
| Bioaccumulative potential: | No data |
| Mobility in soil: | No data |
| Results of PBT & vPvB assessment: | No data |
| Other adverse effects: | May be harmful to the aquatic environment. |

Section 12. Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 13. Transport Information

Hazards Class

Does not meet the criteria for classification as hazardous for transport.

UN proper shipping name ADR/RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

Section 14. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

no data

Chemical Safety Assessment

no data

Section 15. Additional Information

This MSDS above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

----End of safety data sheet----