

# CINNAMALDEHYDE

## Safety Data Sheet

Supersedes: 25/09/2024

Revision: 1.5

Revision date: 17/02/2025

### SECTION 1: Identification

#### 1.1 Identification

|                  |   |  |
|------------------|---|--|
| Product form     | : | Substance                              |
| Substance name   | : | Cinnamaldehyde                         |
| CAS No           | : | 104-55-2                               |
| EC/ List No      | : | 203-213-9                              |
| Formula          | : | C <sub>9</sub> H <sub>8</sub> O        |
| Molecular weight | : | 132.15 g/mol                           |
| Synonyms         | : | 3-phenyl-2-propenal, cinnamic aldehyde |

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

|                              |   |   |
|------------------------------|---|---|
| Use of the substance/mixture | : | As flavoring ingredient and fragrance additive. |
|------------------------------|---|---|

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

Godavari Biorefineries Ltd.  
45/47, Somaiya bhavan,  
Mahatma Gandhi Road,  
Fort, Mumbai -400001, INDIA.  
T 0091 22 22048272  
Email: [alka@somaiya.com](mailto:alka@somaiya.com)  
[www.somaiya.com](http://www.somaiya.com)

#### 1.4 Emergency telephone Number

|                  |   |   |
|------------------|---|---|
| Emergency number | : | 0091 2423 279308  |
|                  |   | 0091 22 22048272 (Monday – Friday - 09.30 hrs to 18.00 hrs) |

### SECTION 2: Hazard(s) identification

#### GHS classification

##### 2.1 Classification of the substance or mixture

|                        |   |  |
|------------------------|---|--|
| Skin Sens. Category 1  | : | H315 causes skin irritation              |
| Skin Irrit. Category 2 | : | H317 may cause an allergic skin reaction |
| Eye Irrit. Category 2  | : | H319 causes serious eye irritation       |

##### 2.2 GHS labeling

#### Hazard pictograms (GHS)



GHS07

#### Signal word (GHS)

: Warning

#### Hazard statements (GHS)

:

H315

: Causes skin irritation

H317

: May cause an allergic skin reaction

H319

: Causes serious eye irritation

#### Precautionary statements (GHS)

:

P302+P352

: IF ON SKIN: wash with plenty of water

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|----------------|---|--|
| P333+P313      | : | IF SKIN irritation or rash occurs: Get medical advice/attention.   |
| P321           | : | Specific treatment (see ... on this label).  |
| P362+P364      | : | Take off contaminated clothing and wash it before reuse.   |
| P332+P317      | : | If skin irritation occurs: Get medical help.   |
| 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+P317      | : | If eye irritation persists: Get medical help.  |

### 2.3 Other hazards

Other hazards not contributing to the Classification : None.

### 2.4 Unknown acute toxicity (GHS US)

Not applicable.

## SECTION 3: Composition/Information on ingredients

### 3.1 Substance

Substance type : Mono-constituent

| Name                               | Product Identifier<br>CAS No.<br>EC No. | Concentration % | GHS Classification   |
|------------------------------------|---|-----------------|--|
| Cinnamaldehyde<br>(Sum of Isomers) | 104-55-2<br>203-213-9                   | Min. 99.00%     | Skin Sens 1 . H317,<br>Skin Irrit. 2 ,H315,<br>Eye Irrit. 2 H319 |

### 3.2 Mixture

Not Applicable.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                     |   |  |
|---------------------|---|--|
| General description | : | Do not leave the victim unattended. Consult Physician. Show this safety data sheet to doctor in attendance.  |
| Inhalation          | : | Supply fresh air. If required, provide artificial respiration. Keep patient warm. In case of unconsciousness place patient stably in side position for transportation. |
| Skin contact        | : | Remove contaminated clothing. Immediately wash with water and soap and rinse thoroughly. If irritation occurs , consult a doctor.                                      |
| Eye contact         | : | Check for and remove any contact lenses. Protect unharmed eye. Rinse opened eye for several minutes under running water.   |
| Ingestion           | : | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.   |

### 4.2 Most important symptoms and effects, both acute and delayed

|                                      |   |  |
|--------------------------------------|---|--|
| Symptoms/injuries after inhalation   | : | Vapours may cause headache, fatigue, dizziness and nausea. |
| Symptoms/injuries after skin contact | : | May cause allergic skin reaction.                          |
| Symptoms/injuries after eye contact  | : | Causes eye irritation.                                     |
| Symptoms/injuries after ingestion    | : | Nausea, vomiting.  |

### 4.3 Indication of any immediate medical attention and special treatment needed

Seek medical assistance.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water spray, carbon dioxide, alcohol resistant foam, dry chemical powder.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

### 5.2 Special hazards arising from the substance or mixture

- Explosion hazard : In combustion emits toxic fumes of carbon monoxide.
- Reactivity : No further relevant information known.

### 5.3 Advice for firefighters

- Firefighting instructions : Avoid breathing fire gases or vapours.
- Protection during firefighting : Wear self-contained respiratory protective device.

### 5.4 Additional information

No Data Available.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

- Protective equipment : Wear protective clothing as described in Section 8.
- Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop nearby engines and no smoking. No naked flames or sparks. Use Spark- and explosion-proof appliances and lighting equipment

#### For emergency responders

- Protective equipment : wear appropriate protective equipment and self-contained breathing apparatus.
- Emergency procedures : Evacuate personnel to safe areas, shut off all ignition sources.

### 6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and material for containment and cleaning up

- For containment : Use compatible material of containers.
- Methods for cleaning up : Absorb with liquid binding material (sand, diatomite, acid binder, universal binders, sawdust)

### 6.4 Reference to other sections

No additional information available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking.

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### 7.2 Conditions for safe storage, including any incompatibilities

|                               |   |   |
|-------------------------------|---|---|
| Storage temperature           | : | Not available.  |
| Heat-ignition                 | : | KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.   |
| Prohibitions on mixed storage | : | KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) bases.  |
| Storage area                  | : | Store in a dry area. Ventilation at floor level. Keep out of direct sunlight. Fireproof storeroom. Keep receptacle tightly sealed. Meet the legal requirements. |
| Special rules on packaging    | : | SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements.   |
| Packaging materials           | : | No further relevant information available   |

### 7.3 Specific end uses




Manufacturing of substances

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Not required.

### 8.2 Exposure controls

|                                   |   |   |
|-----------------------------------|---|---|
| Appropriate engineering controls  | : | Material should be handled safely.  |
| Personal protective equipment     | : | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Protective goggles.</p> </div> <div style="text-align: center;">  <p>Gloves.</p> </div> <div style="text-align: center;">  <p>Protective clothing.</p> </div> </div> |
| Materials for protective clothing | : | Butyl rubber or nitrile rubber. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.   |
| Hand protection                   | : | Gloves.   |
| Eye protection                    | : | Protective goggles ,Eyewash fountains and safety showers.   |
| Skin and body protection          | : | Head/neck protection.   |
| Respiratory protection            | : | In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.   |
| Thermal hazard protection         | : | None.   |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                |   |                          |
|----------------|---|--------------------------|
| Physical state | : | Liquid                   |
| Appearance     | : | Oily Liquid              |
| Colour         | : | Yellow                   |
| Odour          | : | Strong odour of cinnamon |
| pH             | : | No data available        |
| Melting point  | : | Not applicable           |
| Freezing point | : | -7.5 °C                  |

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|   |   |  |
|---|---|--|
| Initial boiling point/boiling range         | : | 253 °C   |
| Flash Point                                 | : | 105 °C - Pensky-Martens closed cup - ASTM D 93 |
| Relative evaporation rate                   | : | No Data Available                              |
| Relative vapour density at 20°C             | : | No Data Available                              |
| Specific gravity/ density                   | : | 1.045 to 1.053 g/cm <sup>3</sup> at 25°C       |
| Molecular mass                              | : | 132.15 g/mol                                   |
| Flammability [Solid/Gas]                    | : | No Data Available                              |
| Solubility                                  | : | 2865 mg/l at 25°C                              |
| Vapour pressure                             | : | 3.85 Pa at 25°C                                |
| Evaporation Rate                            | : | No Data Available                              |
| Partition coefficient n-octanol/water       | : | 1.9  |
| Auto-ignition temperature                   | : | No Data Available                              |
| Decomposition temperature                   | : | No Data Available                              |
| Dynamic Viscosity                           | : | 22.12 mPa.s at 20°C                            |
| Explosive Limits (Upper/lower flammability) | : | No Data Available                              |
| Oxidizing properties                        | : | Not oxidizing                                  |

### 9.2 Other information

|                 |   |                   |
|-----------------|---|-------------------|
| Surface Tension | : | 39 mN/m (25°C)    |
| VOC content     | : | No data available |

## SECTION 10: Stability and reactivity

|  |   |   |
|--|---|---|
| <b>10.1 Reactivity</b>                         | : | No further relevant information available.                        |
| <b>10.2 Chemical Stability</b>                 | : | Stable at ambient temperature and under normal conditions of use. |
| <b>10.3 Possibility of hazardous reactions</b> | : | No potentially hazardous reactions known.                         |
| <b>10.4 Conditions to avoid</b>                | : | Extremely high or low temperatures. Incompatible materials.       |
| <b>10.5 Incompatible materials</b>             | : | Strong acids and bases , strong oxidizing agents.                 |
| <b>10.6 Hazardous decomposition products</b>   | : | carbon monoxide.  |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

|                           |   |            |
|---------------------------|---|------------|
| Likely routes of exposure | : | Skin , eye |
| Acute toxicity            | : | None       |

| Cinnamaldehyde (104-55-2) |   |  |
|---------------------------|---|--|
| LD50 oral toxicity        | : | 2200 mg/kg bw (rat)                        |
| LD50 dermal toxicity      | : | No further relevant information available. |
| LC50 inhalation toxicity  | : | No further relevant information available. |

|                                   |   |  |
|-----------------------------------|---|--|
| Skin corrosion/irritation         | : | Irritating.                                |
| Serious eye damage/irritation     | : | Irritating.                                |
| Respiratory or skin sensitisation | : | causes skin sensitization.                 |
| Germ cell mutagenicity            | : | No further relevant information available. |
| Carcinogenicity                   | : | No further relevant information available. |

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|  |   |  |
|--|---|--|
| Reproductive toxicity                              | : | No further relevant information available. |
| Specific target organ toxicity (single exposure)   | : | No further relevant information available. |
| Specific target organ toxicity (repeated exposure) | : | No further relevant information available. |
| Aspiration hazard                                  | : | No further relevant information available. |

### SECTION 12: Ecological information

|                   |   |                 |
|-------------------|---|-----------------|
| Ecology - general | : | Not classified. |
| Ecology - air     | : | Not classified. |
| Ecology – water   | : | Not classified. |

#### Cinnamaldehyde (104-55-2)

| Toxicity to Fish |   | Toxicity to aquatic invertebrates | Toxicity to aquatic plants     | Toxicity to Microorganisms |
|------------------|---|-----------------------------------|--------------------------------|----------------------------|
| Value            | - | EC 4.22 mg/L (48 h)               | EC50 - 4.07 to 6.87 mg/L(72 h) | -                          |
| Species          |   | Daphnia magna                     | Green algae                    |                            |

#### 12.2 Persistence and degradability

##### Cinnamaldehyde (104-55-2)

Persistence and degradability : No further relevant information available.

#### 12.3 Bio accumulative potential

Bio-accumulative potential : No further relevant information available.

#### 12.4 Mobility in soil

Ecology – soil : No further relevant information available

#### 12.5 Other adverse effects

No additional information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Waste disposal recommendations : Disposal should be in accordance with all applicable regional & national laws and regulations. Check the quality, if it is off spec then redistill, recycle & its residual mass send to authorized licensed professional waste disposal service for incineration. Do not discharge into drains or the environment.

### SECTION 14 : Transport Information

#### Marine transport (IMDG)

|                                      |   |                 |
|--------------------------------------|---|-----------------|
| UN number                            | : | Not regulated.  |
| Proper shipping name and description | : | Not regulated.  |
| Class                                | : | Not regulated.  |
| Packaging group                      | : | Not regulated.  |
| Hazard Identification Number         | : | Not applicable. |
| EmS code                             | : | Not applicable. |
| Marine pollutant                     | : | No.             |

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### Air transport ICAO/IATA

UN number : Not regulated.  
 Proper shipping name and description : Not regulated.  
 Class : Not regulated.  
 Packaging group : Not regulated.  
 Hazard Labels : Not applicable.  
 Environmentally hazardous : No.

### Department of Transportation (DOT)

UN number : Not regulated.  
 Proper shipping name : Not regulated.  
 Hazard class : Not regulated.  
 Packaging group : Not regulated.  
 Quantity limitations (QL) : Not regulated.  
 Poison Inhalation Hazard : No.  
 Hazard labels : Not regulated

## SECTION 15: Regulatory information

### 15.1 National regulations

#### Cinnamaldehyde (104-55-2)

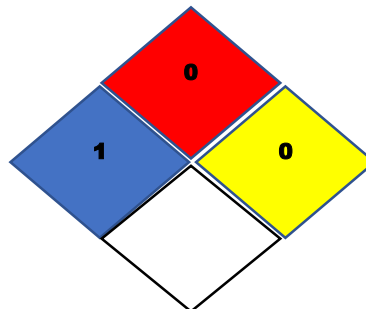
| Country    | National Inventories | Listing |
|------------|----------------------|---------|
| CANADA     | DSL                  | Listed  |
| EUROPE     | EC                   | Listed  |
| NEWZEALAND | NZIoC                | Listed  |
| TAIWAN     | TCSI                 | Listed  |
| USA        | TSCA                 | Listed  |

## SECTION 16: Other information

### 16.1 Hazard Statement

H315 : Causes skin irritation  
 H317 : May cause an allergic skin reaction  
 H319 : Causes serious eye irritation

### 16.2 NFPA Rating



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### 16.3 Abbreviations and acronyms

- : PBT = Persistent , bioaccumulative , toxic
- vPvB= Very Persistent and Very Bioaccumulative
- SCBA= Self Contained Breathing Apparatus
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit
- OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit
- OELTWA= Occupational Exposure Limit Time Weighted Averages
- IDLH= Immediately Dangerous to Life or Health
- UEL= Upper Explosive Limit
- LEL= Lower Explosive Limit
- RTECS= Registry of Toxic Effects of Chemical Substances
- NTP=National Toxicology Programm
- IARC= International Agency for Research on Cancer
- EPA=Environmental Protection Agency
- TSCA= Toxic Substances Control Act
- NFPA= National Fire Protection Association
- CSR=Chemical Safety Report
- BCF = Bio Concentration Factor
- DNEL = Derived No Effect Level
- PNEC = Predicted No Effect Concentration
- TLV = Threshold Limit Value
- ACGIH = American Conference of Governmental Industrial Hygienist
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- CLP = Classification, Labelling and Packaging
- LD / LC = Lethal Doses / Lethal Concentration
- GHS = Globally Harmonised System
- ADR = Accord europeen relative au transport international de marchandises
- IMDG-Code = International Maritime Code for Dangerous Goods
- EmS = Emergency measures on Sea
- ICAO = International Civil Aviation Organization
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

### 16.4 Further information:

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