

BFGoodrich Kalama Emergency Phone 1-360-673-2550 CHEMTREC 1-800-424-9300

**PRODUCT INFORMATION**

**PRODUCT NAME:** CINNAMIC ALDEHYDE  
**CHEMICAL NAME:** 2-Propenal, 3-phenyl  
**SYNONYMS:** Cinnamaldehyde,  $\beta$ -Phenylacrolein  
**CHEMICAL FAMILY:** Aromatic Unsaturated Aldehydes  
**MOLECULAR FORMULA:**  $C_6H_5CH=C(H)CHO$  ( $C_9H_8O$ )  
**MOLECULAR WEIGHT:** 132.2  
**CAS REG #:** 104-55-2

**SUMMARY OF HAZARDS**

**WARNING!** CAUSES SKIN IRRITATION  
CAUSES EYE IRRITATION  
MAY CAUSE ALLERGIC SKIN REACTION

**PHYSICAL PROPERTIES**

**APPEARANCE / ODOR:** Pale yellow liquid with a strong cinnamon-like odor.  
**BOILING POINT:** 487°F (253°C)      **MELTING POINT:** -8°C (17°F)  
**VAPOR PRESSURE:** 0.03 mm Hg @ 77°F      **SOLUBILITY IN WATER:** Slight  
**SPECIFIC GRAVITY:** 1.048 @ 77°F ( $H_2O=1$ )      **WEIGHT PER GALLON:** 8.7 #  
**EVAP RATE:** 0.002 (Butyl Acetate = 1)      **% VOLATILE:** 100  
**VAPOR DENSITY:** 4.6. (Air=1)

**FIRE AND EXPLOSION HAZARD INFORMATION**

**FLASH POINT (TCC):** 230°F (110°C)      **FLAMMABLE LIMITS:** Not determined  
**AUTOIGNITION TEMP:** Not determined      **DECOMPOSITION TEMP:** Not determined

**FIRE and EXPLOSION HAZARDS:** Materials used to wipe up spills of cinnamic aldehyde (such as rags or paper towels) might provide a fire hazard. See Sections IX and X for additional information. Decomposition under fire conditions will generate carbon monoxide and possibly other toxic vapors.

**FIRE FIGHTING INFORMATION:** Use CO<sub>2</sub>, foam, or dry chemical to extinguish fire. Water can be used to cool a fire, but for extinguishment, foam or dry chemical are preferred. Avoid spreading liquid and fire by water flooding. Wear self-contained, positive pressure breathing apparatus and full fire fighting protective clothing. Use water to keep containers cool.

**HAZARD RATINGS FOR CINNAMIC ALDEHYDE**

<b>H.M.I.S. RATINGS (NPCA &amp; NAPIM)</b>	<b>HEALTH FLAMMABILITY REACTIVITY</b>	<b>2</b>
		<b>1</b>
		<b>0</b>

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HEALTH HAZARD INFORMATION

LD<sub>50</sub> (ORAL RAT): 2,200 mg / kg    LD<sub>50</sub> (DERMAL RABBIT): > 1,000 mg / kg

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**THRESHOLD LIMIT VALUE (TLV):** TLV has not been established by the ACGIH.

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**CARCINOGEN ( IARC / NTP / 29 CFR ):**    No

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**NOTE:** Health studies have shown that exposures to chemicals pose potential health risks which may vary from person to person. Therefore any exposure to liquids, vapors, mists , or fumes should be minimized.

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**ACUTE HEALTH HAZARDS:**

Inhalation: Inhalation of concentrated vapor may irritate the nose and throat.

Eye Contact: Causes eye irritation.

Skin Contact: Is a skin irritant and a strong sensitizer. May cause allergic skin reaction.

Ingestion: No significant health hazard.

**CHRONIC HEALTH HAZARDS:**

Repeated skin contact may cause allergic contact dermatitis. Some workers repeatedly exposed to high concentrations of cinnamic aldehyde during the manufacture of cinnamon spice substitutes have developed sensitivity to cinnamic aldehyde. No other chronic health hazard information is available.

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**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** None known.

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**EMERGENCY FIRST AID:**

Inhalation: If overcome by exposure, remove to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.

Eye Contact: In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Skin Contact: In case of skin contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation develops. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: If swallowed, call a physician immediately. Induce vomiting only on advice of medical personnel. Never give anything by mouth to an unconscious person.

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(please see page 3 for additional data)

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VII PROTECTIVE EQUIPMENT AND EXPOSURE CONTROL METHODS

Use with adequate local exhaust ventilation. In confined or enclosed spaces, use NIOSH approved respiratory protection. Use chemical resistant apron, gloves, and other impervious clothing to avoid skin contact. Use splash goggles and face shield when eye contact may occur. Provide safety shower, equipped with an eye wash fountain in the immediate vicinity of any potential exposure.

Use good personal hygiene practices. Wash hands before eating, drinking, or smoking, or using toilet facilities. Promptly remove contaminated clothing and wash thoroughly before reuse.

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VIII REACTIVITY DATA

STABILITY: Stable HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Strong oxidizing agents; amines.

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion will produce carbon monoxide and other potentially toxic and/or poisonous vapors.

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IX SPILL OR LEAK PROCEDURES

Remove sources of ignition, stop release, and provide adequate ventilation. Prevent flow to sewer and public waters. Recover free product, if possible.

Cover spill with inert, non-combustible absorbent material and remove to disposal container. Rags or towels used to clean-up spills should be thoroughly cleaned before disposal. Report spill as per regulatory requirements.

Leaking drum should be emptied or placed into an oversized (recovery) drum.

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X ADDITIONAL PRECAUTIONS

Store as a NFPA Class IIIB liquid. Keep fire and sparks away from drums. Since empty containers retain product residue, do not cut, drill, grind, or weld on or near the container until it is thoroughly cleaned.

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Remove all ignition sources. Check atmosphere for explosiveness and oxygen deficiencies. Use adequate personal protective equipment. Comply with regulations governing confined space entry.

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(please see page 4 for additional data)

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XI

WASTE DISPOSAL

Disposal must be made in accordance with applicable governmental regulations.  
Do not contaminate any streams, lakes, or ponds.

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OSHA / SARA TITLE III / TSCA INFORMATION

We have evaluated Cinnamic Aldehyde using the criteria in OSHA's Hazard Communication Rule (29 CFR 1910.1200). Cinnamic Aldehyde is considered hazardous under this OSHA standard.

Cinnamic Aldehyde is not listed as an Extremely Hazardous Substance under Section 302 of SARA Title III.

As an OSHA Hazardous Substance, Cinnamic Aldehyde is subject to the reporting requirements of Sections 311/312 of SARA Title III.

Cinnamic Aldehyde does not contain ingredients (at a level of 1 % or more) on the List of Toxic Chemicals in Section 313 of SARA Title III.

Cinnamic Aldehyde is included in the current TSCA Inventory List.

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TRANSPORTATION INFORMATION

Under the regulations of the US Department of Transportation (DOT) and the International Maritime Dangerous Goods Code (IMDG), CINNAMIC ALDEHYDE is not classified as hazardous.

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