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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	HCA / alpha-Hexylcinnamaldehyde	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	HCA / alpha-Hexylcinnamaldehyde
Synonyms	HCA; α-Hexylcinnamaldehyde; 2-Hexyl-3-phenyl-2-propenal; 2-Hexyl-3-phenylacrylaldehyde
CAS No.	101-86-0
EC No.	202-983-3
Molecular formula	C15H20O
Molecular weight	216.32 g/mol
Relevant identified uses	Fragrance and aroma raw material, including floral/jasmine fragrance formulation applications.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
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SECTION 2: Hazards identification

GHS Classification	Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 2; Skin sensitization Category 1
Pictogram(s)	GHS07
Signal word	Warning
Hazard statement(s)	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H317 May cause an allergic skin reaction.
Precautionary statement(s)	P261 Avoid breathing mist, vapours or spray.; P272 Contaminated work clothing should not be allowed out of the workplace.; P264 Wash hands and face thoroughly after handling.; P280 Wear protective gloves and eye protection.; P302+P352 IF ON SKIN: wash with plenty of soap and water.; P333+P313 If skin irritation or rash occurs: get medical advice/attention.; P362+P364 Take off contaminated clothing and wash it before reuse.; 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.
Other hazards	IMAP assessments - Amyl and hexyl cinnamaldehyde: Human health tier II assessment

SECTION 3: Composition/information on ingredients	
Component	HCA / alpha-Hexylcinnamaldehyde
CAS No.	101-86-0
EC No.	202-983-3
Classification	Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 2; Skin sensitization Category 1
Concentration	min. 90.0% (GC), TCI H0685

SECTION 4: First-aid measures	
If inhaled	Remove to fresh air and keep at rest in a position comfortable for breathing; get medical advice/attention if unwell.
In case of skin contact	Remove contaminated clothing immediately, gently wash with plenty of soap and water, and get medical advice/attention if irritation or rash occurs.
In case of eye contact	Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing and get medical advice/attention if irritation persists.
If swallowed	Rinse mouth and get medical advice/attention if unwell.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Dry chemical, foam or carbon dioxide.
Unsuitable extinguishing media	Water, because it may scatter and spread fire.
Special hazards arising from the chemical	Carbon dioxide and carbon monoxide.
Advice for firefighters	Extinguish from upwind using a method appropriate to surroundings; evacuate uninvolved persons, remove movable containers if safe and wear personal protective equipment.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Use personal protective equipment, keep people away and upwind, ensure ventilation and control entry of non-involved personnel.
Environmental precautions	Prevent product from entering drains.
Methods for containment and cleaning up	Absorb with rag, dry sand, earth or sawdust; bund large spills; promptly dispose of collected material according to applicable laws and regulations.

SECTION 7: Handling and storage	
Precautions for safe handling	Handle in a well-ventilated place with suitable protective equipment; prevent vapour or mist generation; use local exhaust if vapour or aerosol may be generated; avoid skin, eye and clothing contact and wash hands and face after handling.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a cool, dark place; store under inert gas and away from oxidizing agents; air-sensitive.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	Mubychem states that the product does not contain hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Install a closed system or local exhaust where possible to avoid direct exposure; install safety shower and eye bath.
Eye/face protection	Use safety eyewear appropriate to the risk of exposure.
Skin and body protection	Protective clothing and protective boots if the situation requires.
Respiratory protection	Vapour respirator; follow local and national regulations.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	Liquid at 20 °C; clear
Colour	Slightly pale yellow to yellow
Odour	Sweet
Melting point / freezing point	4 °C
Boiling point / boiling range	175 °C / 2.0 kPa
Flammability	Combustible liquid, NFPA class IIIB; it will burn at high temperatures (Mubychem).
Explosion / flammability limits	No data available
Flash point	113 °C, closed cup
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	Liquid; yellow
Viscosity	No data available
Solubility	0.005 g/L at 25 °C, negligible
Partition coefficient n-octanol/water	log Pow 4.686 (ChemicalBook public SDS). Kao separately reports CLogP 4.82, which is a calculated value.
Vapour pressure	<0.000534 mmHg at 25 °C (Kao). Mubychem reports <0.02 mmHg at 20 °C; the source values and temperatures are retained separately.
Density and/or relative density	No data available
Relative vapour density	No data available
Particle characteristics	Not applicable (liquid).
Melting freezing point	No data available
Relative density	0.96
Water solubility	Insoluble
Other solubility	Soluble in alcohols; insoluble in glycerol and propylene glycol.
Other properties	No data available for evaporation rate, flammability, explosive limits, vapour pressure, vapour density, partition coefficient, auto-ignition temperature, decomposition temperature and viscosity.
Refractive index	1.547-1.553

SECTION 10: Stability and reactivity	
Reactivity	The product can oxidize. Mubychem recommends minimizing air contact and nitrogen-padding opened containers; TCI identifies the product as air sensitive and specifies storage under inert gas.
Chemical stability	Stable under proper conditions.
Possibility of hazardous reactions	No special reactivity has been reported.
Conditions to avoid	Excessive heat and ignition sources; protect from sunlight and minimize air exposure during storage.
Incompatible materials	Oxidizing agents and strong bases.
Hazardous decomposition products	Carbon monoxide and carbon dioxide may be formed during combustion or thermal decomposition.

SECTION 11: Toxicological information	
Acute oral toxicity	Oral rat LD50: 3,100 mg/kg.
Acute dermal toxicity	Skin rabbit LD50: >3,000 mg/kg.
Acute inhalation toxicity	Inhalation rat LC: >5,000 mg/m³/4 h.
Skin corrosion irritation	Skin rabbit, 100 mg/24 h: severe.
Carcinogenicity	IARC: no data available; NTP: no data available.
Rtecs	GD6560000
Sensitization	GHS classification: Skin sensitization Category 1
Serious eye damage irritation	GHS classification: Skin corrosion/irritation Category 2; Serious eye damage/eye irritation Category 2; Skin sensitization Category 1; H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.

SECTION 12: Ecological information	
Toxicity	Fish, crustacea and algae: no data available.
Persistence degradability	87% by BOD; 99% by HPLC.
Mobility in soil	Log Pow, Koc and Henry's Law constant: no data available.
Pbt vpvb	PBT: not applicable; vPvB: not applicable.

SECTION 13: Disposal considerations	
Product disposal methods	Recycle to process if possible and consult local/regional authorities; may be burned in a chemical incinerator equipped with afterburner and scrubber; observe all federal, state and local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information	
UN Number (ADR/RID, IMDG, IATA)	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (α-Hexylcinnamaldehyde)

SECTION 14: Transport information

Transport hazard class(es)	9
Packing group	Not applicable in the selected SDS
Environmental hazards / Marine pollutant	ADR/RID: yes; IMDG Marine pollutant: yes; IATA-DGR: yes
Special precautions for user	Keep containers closed and secured during transport. Follow applicable dangerous goods regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	Water_Hazard_Class_WGK: Class 2 — hazard to waters.; REACH_SVHC: Not listed.; chemical_safety_assessment: A chemical safety assessment has not been carried out.

SECTION 16: Other information

Full text of H-Statements	H315 Causes skin irritation.; H319 Causes serious eye irritation.; H317 May cause an allergic skin reaction.
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: alpha-Hexylcinnamaldehyde — PubChem CID 1550884: https://pubchem.ncbi.nlm.nih.gov/compound/1550884 | alpha-Hexylcinnamaldehyde, H0685: https://www.tcichemicals.com/US/en/p/H0685 | Safety Data Sheet H0685 — alpha-Hexylcinnamaldehyde: https://www.tcichemicals.com/BE/en/sds/H0685_EU_6N.pdf | Fragrances and Aromas business fields: https://chemical.kao.com/cn/en/business-fields/fragrances-and-aromas/ | HCA — technical data, CAS 101-86-0: https://chemical.kao.com/global/fragrances-and-aromas/products/hca/ | alpha-Hexylcinnamaldehyde — Safety Data Sheet, CAS 101-86-0: https://www.chemicalbook.com/msds/alpha-hexylcinnamaldehyde.htm | Hexyl Cinnamic Aldehyde — manufacturer SDS and specifications: https://www.mubychem.com/Cinnamic-Aldehyde-Cinnamyl/Hexyl-Cinnamic-Aldehyde.htm | KALAMA Hexyl Cinnamic Aldehyde — product information: https://lanxess.com/en/products-and-brands/products/k/kalama--hexyl-cinnamic-aldehyd | Hexyl Cinnamic Aldehyde (HCA) — pure substance SDS: https://www.perfumersworld.com/document-list.php?pro_id=3JJ00217&ifra=defaultOpen | alpha-Hexylcinnamaldehyde, product H0685 — storage and safety information: https://www.tcichemicals.com/GB/en/p/H0685
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.