

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 1 of 8

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

1.1. Product identifier

NATURAL CINNAMIC ALDEHYDE

Substance name: NATURAL CINNAMIC ALDEHYDE
 CAS No: 104-55-2

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

Use of the substance/mixture

For Flavour use for food and feed only

1.3. Details of the supplier of the safety data sheet

Company name:	Axxence Aromatic GmbH	
Street:	Tackenweide 28	
Place:	D-46446 Emmerich am Rhein	
Telephone:	+ 49 2822 68561 0	Telefax: + 49 2822 68561 39
E-mail:	info@axxence.com	
Contact person:	Andreas Goertz	Telephone: + 49 2822 68561 143
E-mail:	andreas.goertz@axxence.com	
Internet:	www.axxence.de	
Responsible Department:	QM - Regulatory Affairs - Safety Management	

1.4. Emergency telephone number: +49 2822 68561 99

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

UN GHS (ST/SG/AC.10/11/Rev.9)

Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Irrit. 2
 Respiratory or skin sensitisation: Skin Sens. 1
 Hazardous to the aquatic environment: Aquatic Acute 2
 Hazardous to the aquatic environment: Aquatic Chronic 3

2.2. Label elements

UN GHS (ST/SG/AC.10/11/Rev.9)

Signal word: Warning

Pictograms:



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 2 of 8

	protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P317	If skin irritation or rash occurs: Get medical help.
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+P317	If eye irritation persists: Get medical help.
P501	Dispose of contents/container to .

2.3. Other hazards

This substance has been listed as SVHC (substance of very high concern) in the Candidate List according to Article 59 of REACH. This substance is identified as SVHC (substance of very high concern) and is subject to authorisation according to Annex XIV of REACH.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:	C ₉ H ₈ O
Molecular weight:	132,16

Hazardous components

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.9))	
104-55-2	NATURAL CINNAMIC ALDEHYDE	100 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 2, Aquatic Chronic 3; H315 H319 H317 H401 H412	

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of water. Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.
Extinguishing powder, Carbon dioxide (CO₂), Water spray jet, alcohol resistant foam

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 3 of 8

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

No special measures are necessary.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls**

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 4 of 8



Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	light yellow
Melting point/freezing point:	-8 °C
Boiling point or initial boiling point and boiling range:	250 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	105 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 30 °C):	5
Viscosity / kinematic: (at 40 °C)	17,29 mm ² /s
Water solubility: (at 25 °C)	2,9 g/L
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	1,9
Vapour pressure: (at 20 °C)	<0,1 hPa
Vapour pressure: (at 76,1 °C)	1,3 hPa
Density (at 20 °C):	1,05 g/cm ³
Relative vapour density: (at 20 °C)	4,56
Particle characteristics:	not applicable

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive. not explosive according to EU A.14

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 5 of 8

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	0%
Solid content:	0%
Viscosity / dynamic: (at 40 °C)	18 mPa·s

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
104-55-2	NATURAL CINNAMIC ALDEHYDE				
	oral	LD50 2220 mg/kg	Rat	REACH Registration	
	dermal	LD50 >2000 mg/kg	Rat	REACH Registration	
	inhalation (4 h) vapour	LC50 68,88 mg/l	Rat	REACH Registration	

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (NATURAL CINNAMIC ALDEHYDE)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 6 of 8

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Other information

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008).

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
104-55-2	NATURAL CINNAMIC ALDEHYDE					
	Acute fish toxicity	LC50 mg/l	2,35	96 h	Danio rerio (zebrafish)	REACH Registration Council Directive 92/69/EEC C.1 (1992)
	Acute algae toxicity	ErC50 mg/l	31,6	72 h	Desmodesmus subspicatus	REACH Registration OECD 201
	Acute crustacea toxicity	EC50 mg/l	3,21	48 h	Daphnia magna (Big water flea)	REACH Registration OECD 202
	Fish toxicity	NOEC mg/l	15,16	28 d	Freshwater Fish	REACH Registration ECOSAR 1.11 calculation
	Crustacea toxicity	NOEC	0,4 mg/l	21 d	Daphnia magna (Big water flea)	REACH Registration OECD 211
	Acute bacteria toxicity	EC50 ()	71 mg/l ()	3 h	Activated sludge	REACH Registration ISO 8192

12.2. Persistence and degradability

Readily biodegradable (according to OECD criteria).

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
104-55-2	NATURAL CINNAMIC ALDEHYDE			
	OECD 301B	100%	21	REACH Registration
	Readily biodegradable (according to OECD criteria).			
	OECD 301B	94%	14	REACH Registration
	Readily biodegradable (according to OECD criteria).			
	OECD 301B	89%	7	REACH Registration
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
104-55-2	NATURAL CINNAMIC ALDEHYDE	2,107

BCF

CAS No	Chemical name	BCF	Species	Source
104-55-2	NATURAL CINNAMIC ALDEHYDE	8,33		REACH Registration

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 7 of 8

12.4. Mobility in soil

The product has not been tested.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Marine transport (IMDG)**

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	No
Danger releasing substance:	CINNAMIC ALDEHYDE

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**National regulatory information**

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2.

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

NATURAL CINNAMIC ALDEHYDE

Revision date: 15.12.2023

Product code: 228620WW

Page 8 of 8

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
EC/EEC: European Community/European Economic Community
EU: European Union
M-factor: Multiplying factor
IATA: International Air Transport Association
DGR: Dangerous Goods Regulations
ICAO: International Civil Aviation Organization
TI: Technical Instructions
VOC: volatile organic compound

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.