

Safety Data Sheet

according to 29 CFR 1910.1200(g)

NATURAL ALDEHYDE C-12 (DODECANAL)

Revision date: 10/23/2025

Product code: 261500

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1. Identification

Product identifier

NATURAL ALDEHYDE C-12 (DODECANAL)

Substance name: NATURAL ALDEHYDE C-12 (DODECANAL)
CAS No: 112-54-9

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

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:	Safety Team	Telephone: + 49 2822 68561 0
E-mail:	safety-documentation@axxence.com	
Internet:	www.axxence.de	
Responsible Department:	Safety Management	

Emergency phone number: +49 2822 68561 99

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

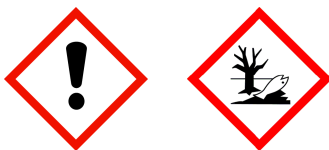
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Hazardous to the aquatic environment: Aquatic Chronic 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



Hazard statements

Causes skin irritation and serious eye irritation
May cause an allergic skin reaction
Toxic to aquatic life with long lasting effects

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash Hände thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Collect spillage.
Dispose of contents/container to Organischer Abfall.

3. Composition/information on ingredients

Substances

Sum formula: C₁₂H₂₄O
Molecular weight: 184,32 g/mol

Relevant ingredients

CAS No	Components	Quantity
112-54-9	NATURAL ALDEHYDE C-12 (DODECANAL)	100 %

4. First-aid measures

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 polyethylene glycol, followed by plenty of water. 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 plenty of water.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Specific hazards arising from the chemical

Non-flammable.

Special protective equipment and precautions for fire-fighters

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

Additional information

Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes.

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Use personal protection equipment.

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

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.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

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 or drink.

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.

8. Exposure controls/personal protection

Control parameters

Exposure controls



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

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Colourless to pale yellow
Melting point/freezing point:	12 °C
Boiling point or initial boiling point and boiling range:	257 °C
Flammability:	not applicable
Lower explosion limits:	not applicable
Upper explosion limits:	not determined
Flash point:	117 °C
Auto-ignition temperature:	205 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic: (at 40 °C)	2,5 mm²/s
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	4,75
Vapor pressure: (at 20 °C)	0,007 hPa
Vapor pressure: (at 50 °C)	<300 hPa
Density (at 20 °C):	0,83 g/cm³
Relative vapour density:	not determined

Other information

Information with regard to physical hazard classes

Explosive properties not explosive according to EU A.14	
Self-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Oxidizing properties Not oxidising.	

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	0%
Solid content:	0%

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

none

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Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
112-54-9	NATURAL ALDEHYDE C-12 (DODECANAL)				
	oral	LD50 23100 mg/kg	Rat		
	dermal	LD50 >2001 mg/kg	Rabbit		
	inhalation	Data lacking			

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/eye irritation: Causes serious eye irritation

Sensitizing effects

May cause an allergic skin reaction (NATURAL ALDEHYDE C-12 (DODECANAL))

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): Not listed.

Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

Aspiration hazard

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

Information on other hazards

Endocrine disrupting properties

No information available.

12. Ecological information

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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CAS No	Components					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
112-54-9	NATURAL ALDEHYDE C-12 (DODECANAL)					
	Acute fish toxicity	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	
	Acute algae toxicity	ErC50	NO mg/l	72 h	Pseudokirchneriella subspicata	
	Acute crustacea toxicity	EC50	NO mg/l	48 h	Daphnia magna	
	Algae toxicity	NOEC mg/l	0,35	3 d	Pseudokirchneriella subspicata	

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
112-54-9	NATURAL ALDEHYDE C-12 (DODECANAL)	4,75

Mobility in soil

The product has not been tested.

Endocrine disrupting properties

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

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.

13. Disposal considerations

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.

14. Transport information

U.S. DOT 49 CFR 172.101

UN number or ID number:

UN 3082

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport hazard class(es):

9

Packing group:

III

Hazard label:

9



Marine transport (IMDG)

UN number or ID number:

UN 3082

UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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Transport hazard class(es):

9

Packing group:

III

Hazard label:

9



Special Provisions:

274, 335, 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:

UN 3082

UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport hazard class(es):

9

Packing group:

III

Hazard label:

9



Special Provisions:

A97 A158 A197

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger:

964

IATA-max. quantity - Passenger:

450 L

IATA-packing instructions - Cargo:

964

IATA-max. quantity - Cargo:

450 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

Yes



Danger releasing substance:

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Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 311/312 Hazards:

NATURAL ALDEHYDE C-12 (DODECANAL) (112-54-9): Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Changes

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Revision date: 10/23/2025

Revision No: 102

This data sheet contains changes from the previous version in section(s): 1,2,9,11,14.

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%

Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.