

Safety Data Sheet

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

NATURAL ALPHA-IONONE

Revision date: 16.01.2025

Product code: 259450WW

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

1.1. Product identifier

NATURAL ALPHA-IONONE

Substance name: NATURAL ALPHA-IONONE
CAS No: 127-41-3

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

Use of the substance/mixture

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

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:	Safety Team	Telephone: + 49 2822 68561 0
E-mail:	safety-documentation@axxence.com	
Internet:	www.axxence.de	
Responsible Department:	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.10)

Acute toxicity: Acute Tox. 5 (oral)
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazardous to the aquatic environment: Aquatic Acute 2

2.2. Label elements

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

Hazard components for labelling

NATURAL ALPHA-IONONE
NATURAL BETA-IONONE

Signal word: Warning

Hazard statements

H303 May be harmful if swallowed.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
P301+P317 IF SWALLOWED: Get medical help.
P501 Dispose of contents/container to organic waste.

2.3. Other hazards

Contains no substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH.

Contains no substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH.

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SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Sum formula: C₁₃H₂₀O
Molecular weight: 192,30 g/mol

Relevant ingredients

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.10))	
127-41-3	NATURAL ALPHA-IONONE	85%
	Flam. Liq. 4, Acute Tox. 5, Aquatic Acute 2; H227 H303 H401	
14901-07-6	NATURAL BETA-IONONE	15%
	Acute Tox. 5, Aquatic Acute 2, Aquatic Chronic 2; H303 H401 H411	

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Provide fresh air.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Rinse mouth immediately and drink 1 glass 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.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

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**

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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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

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. 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

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye protection/face protection.

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

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Colour:	
Melting point/freezing point:	-16 °C
Boiling point or initial boiling point and boiling range:	121-122 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	117 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 29 °C):	4,55
Viscosity / kinematic: (at 20 °C)	41,15 mm ² /s
Water solubility: (at 25 °C)	0,059 g/l
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	3,896
Vapour pressure: (at 20 °C)	0,0013 hPa
Density (at 20 °C):	0,93 g/cm ³
Relative vapour density: (at 20 °C)	7
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

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	0%
Solid content:	0%
Viscosity / dynamic: (at 20 °C)	36,45 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.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

May be harmful if swallowed.

ATEmix calculated

ATE (oral) 4590 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
127-41-3	NATURAL ALPHA-IONONE				
	oral	LD50 mg/kg 4590	Rat	REACH Dossier	
	dermal	LD50 mg/kg >5000	Rabbit	REACH Dossier	
14901-07-6	NATURAL BETA-IONONE				
	oral	LD50 mg/kg 4590	Rat	REACH Dossier	
	dermal	LD50 mg/kg 5331	Mouse	REACH Dossier	
	inhalation (4 h) vapour	LC50 mg/l 538,49	Rat	REACH Dossier	

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

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.

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.

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
127-41-3	NATURAL ALPHA-IONONE					
	Acute fish toxicity	LC50	6,8 mg/l	96 h	Leuciscus idus (golden orfe)	REACH Dossier
	Acute algae toxicity	ErC50 mg/l	22,2	72 h	Desmodesmus subspicatus	REACH Dossier
	Acute crustacea toxicity	EC50 mg/l	2,65	48 h	Daphnia magna (Big water flea)	REACH Dossier
	Fish toxicity	NOEC mg/l	0,173	28 d	fish species (undefined)	REACH Dossier
	Crustacea toxicity	NOEC mg/l	0,17	21 d	freshwater invertebrates	REACH Dossier
14901-07-6	NATURAL BETA-IONONE					
	Acute fish toxicity	LC50 mg/l	2,571	96 h	Oryzias latipes (Ricefish)	REACH Dossier
	Acute algae toxicity	ErC50 mg/l	3,223	72 h	Pseudokirchneriella subcapitata	REACH Dossier
	Acute crustacea toxicity	EC50 mg/l	1,641	48 h	Daphnia magna (Big water flea)	REACH Dossier

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
127-41-3	NATURAL ALPHA-IONONE			
	OECD 301B	75,4%	28	REACH Dossier
	inherently biodegradable			
14901-07-6	NATURAL BETA-IONONE			
		50%	38	REACH Dossier
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
127-41-3	NATURAL ALPHA-IONONE	3,896
14901-07-6	NATURAL BETA-IONONE	3,84

BCF

CAS No	Chemical name	BCF	Species	Source
127-41-3	NATURAL ALPHA-IONONE	161	Fish	REACH Dossier
14901-07-6	NATURAL BETA-IONONE	159		REACH Dossier

12.4. Mobility in soil

The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

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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)

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

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	No
Danger releasing substance:	NATURAL ALPHA-IONONE

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).
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SECTION 16: Other information

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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>
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
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.

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(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)