

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## NATURAL BETA-IONONE

Revision date: 16.02.2023

Product code: 259500

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

#### 1.1. Product identifier

NATURAL BETA-IONONE

Substance name: NATURAL BETA-IONONE  
 CAS No: 14901-07-6  
 EC No: 238-969-9

#### 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 37  
 e-mail: andreas.goertz@axxence.com  
 Internet: www.axxence.de  
 Responsible Department: QM - Regulatory Affairs

#### 1.4. Emergency telephone number:

+49 2822 68561 99

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008  
 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

Regulation (EC) No 1272/2008

##### Pictograms:



##### Hazard statements

H411      Toxic to aquatic life with long lasting effects.

##### Precautionary statements

P273      Avoid release to the environment.  
 P391      Collect spillage.  
 P501      Dispose of contents/container to .

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: C13 H20 O

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Molecular weight: 192,3

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
14901-07-6	NATURAL BETA-IONONE			100 %
	238-969-9			
	Aquatic Chronic 2; H411			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
14901-07-6	238-969-9	NATURAL BETA-IONONE	100 %
	inhalation: LC50 = 538,49 mg/l (vapours); dermal: LD50 = 5331 mg/kg; oral: LD50 = 4590 mg/kg		

### 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

Observe risk of aspiration if vomiting occurs. 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.

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#### **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**

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.

#### **7.3. Specific end use(s)**

For Flavour use for food and feed only

## SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **DNEL/DMEL values**

CAS No	Name of agent		
DNEL type	Exposure route	Effect	Value
14901-07-6	NATURAL BETA-IONONE		
Worker DNEL, long-term	inhalation	systemic	2,498 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	2,191 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,621 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	0,54 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4,383 mg/kg bw/day

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#### PNEC values

CAS No	Name of agent	
Environmental compartment		Value
14901-07-6	NATURAL BETA-IONONE	
Freshwater		0,001 mg/l
Freshwater (intermittent releases)		0,015 mg/l
Marine water		0 mg/l
Freshwater sediment		22,451 mg/l
Marine sediment		22,451 mg/l
Soil		10,466 mg/kg

#### 8.2. Exposure controls

##### Individual protection measures, such as personal protective equipment

###### Eye/face protection

Wear eye/face protection.

###### Hand protection

Suitable gloves type: NBR (Nitrile rubber) + Natural fibres (e.g. cotton)

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. Suitable gloves type NBR (Nitrile rubber) + Natural fibres (e.g. cotton)

###### 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:	
Melting point/freezing point:	-49 °C
Boiling point or initial boiling point and boiling range:	277 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	126 °C
Auto-ignition temperature:	273 °C
Decomposition temperature:	not determined
pH-Value (at 24 °C):	5,67
Viscosity / kinematic: (at 20 °C)	13,29 mm <sup>2</sup> /s
Water solubility: (at 27 °C)	10 g/L
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	3,84
Vapour pressure:	not determined
Density (at 20 °C):	0,94 g/cm <sup>3</sup>

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Relative vapour density: not determined

#### 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:

12,50 mPa·s

(at 20 °C)

## 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 hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
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

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

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

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#### 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.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
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			
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
14901-07-6	NATURAL BETA-IONONE	3,84

#### BCF

CAS No	Chemical name	BCF	Species	Source
14901-07-6	NATURAL BETA-IONONE	159		REACH Dossier

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

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.

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## 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.

#### List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

#### List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

#### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

#### Contaminated packaging

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

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9



Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

**Other applicable information (land transport)**  
E1

### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9



Classification code: M6

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Special Provisions: 274 335 375 601  
 Limited quantity: 5 L  
 Excepted quantity: E1

**Other applicable information (inland waterways transport)**

E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 9  
**14.4. 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)**

**14.1. UN number or ID number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Special Provisions: A97 A158 A197 A215  
 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

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: NATURAL BETA-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

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU regulatory information**



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Restrictions on use (REACH, annex XVII):

Entry 3

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,6,7,8,9,12,14,15,16.

#### 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

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

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assessment, chapter R.20 (Table of terms and abbreviations).

**Relevant H and EUH statements (number and full text)**

H411 Toxic to aquatic life with long lasting effects.

**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.