

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## NATURAL BETA-CARYOPHYLLENE

Revision date: 07.06.2024

Product code: 225210

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

#### 1.1. Product identifier

NATURAL BETA-CARYOPHYLLENE

CAS No: 87-44-5  
EC No: 201-746-1  
UFI: W9Q3-4NC7-500V-M2WR

#### 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  
E-mail: info@axxence.com  
Contact person: Safety Team  
E-mail: safety-documentation@axxence.com  
Internet: www.axxence.de  
Responsible Department: Safety Management  
Telefax: + 49 2822 68561 39  
Telephone: + 49 2822 68561 0

#### 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

Asp. Tox. 1; H304  
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

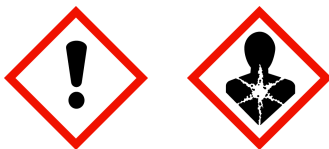
##### Regulation (EC) No 1272/2008

##### Hazard components for labelling

NATURAL BETA-CARYOPHYLLENE  
NATURAL VALENCENE

Signal word: Danger

Pictograms:



##### Hazard statements

H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.

##### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of Water and soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
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.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Sum formula:	204,36
Molecular weight:	C15 H24 g/mol

### Relevant ingredients

CAS No	Chemical name	Quantity
	EC No	Index No
	Classification (Regulation (EC) No 1272/2008)	REACH No
87-44-5	NATURAL BETA-CARYOPHYLLENE	80 - 98 %
	201-746-1	
	Skin Sens. 1B, Asp. Tox. 1; H317 H304	
6753-98-6	alpha-HUMULENE	0 - 15 %
	229-816-7	
4630-07-3	NATURAL VALENCENE	0 - 6 %
	225-047-6	
	Asp. Tox. 1; H304	

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	
87-44-5	201-746-1	NATURAL BETA-CARYOPHYLLENE	80 - 98 %
		oral: LD50 = >5000 mg/kg	
4630-07-3	225-047-6	NATURAL VALENCENE	0 - 6 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg	

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air.

#### 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

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an

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ophthalmologist.

### After ingestion

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

### 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. Vapours can form explosive mixtures with air.

### 5.3. Advice for firefighters

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

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

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### 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. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

#### Hints on joint storage

No special measures are necessary.

### 7.3. Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls



#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### 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	
Colour:		
Odour:	characteristic	
Melting point/freezing point:		~-100°C °C
Boiling point or initial boiling point and boiling range:		258 °C

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Flammability:	not applicable
Lower explosion limits:	not applicable
Upper explosion limits:	not determined
Flash point:	>100 °C
Auto-ignition temperature:	215 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	0,06 hPa
(at 20 °C)	
Vapour pressure:	0,45 hPa
(at 50 °C)	
Density (at 20 °C):	0,90 g/cm³
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%

## 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.

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### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
87-44-5	NATURAL BETA-CARYOPHYLLENE				
	oral	LD50 >5000 mg/kg	Mouse	REACH registration	
4630-07-3	NATURAL VALENCENE				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >5000 mg/kg	Rabbit		

### 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

May cause an allergic skin reaction. (NATURAL BETA-CARYOPHYLLENE)

### 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

May be fatal if swallowed and enters airways.

## 11.2. Information on other hazards

### Endocrine disrupting properties

No information available.

### Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not: Ecotoxic.

### 12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
87-44-5	NATURAL BETA-CARYOPHYLLENE			
	OECD 310	56%	28	REACH registration
	Readily biodegradable (according to OECD criteria).			
	OECD 310	54%	7	REACH registration
	Readily biodegradable (according to OECD criteria).			
	OECD 310	3,2%	3	REACH registration
	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
87-44-5	NATURAL BETA-CARYOPHYLLENE	6,23
6753-98-6	alpha-HUMULENE	6,592
4630-07-3	NATURAL VALENCENE	6,494

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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.

### 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.

#### 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

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated

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packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

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

#### Inland waterways transport (ADN)

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

#### Marine transport (IMDG)

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

#### Air transport (ICAO-TI/IATA-DGR)

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

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 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

Restrictions on use (REACH, annex XVII):

Entry 3

Directive 2004/42/EC on VOC in paints and varnishes: 8 % (72 g/l)

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### 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): 3 - highly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

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



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### Abbreviations and acronyms

Asp. Tox: Aspiration hazard  
 Skin Sens: Skin sensitisation  
 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).

### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Asp. Tox. 1; H304	Calculation method
Skin Sens. 1; H317	Calculation method

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

H304 May be fatal if swallowed and enters airways.  
 H317 May cause an allergic skin reaction.

### 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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### Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	For Flavour use for food and feed only	-	-	-	-	-	-	-	Flavour

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

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