

## Safety Data Sheet

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

### NATURAL NEROLIDOL (CABREUVA OIL FRACTIONS)

Revision date: 09.08.2023

Product code: 277200WW

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

##### 1.1. Product identifier

NATURAL NEROLIDOL (CABREUVA OIL FRACTIONS)

Substance name: NATURAL NEROLIDOL  
 CAS No: 7212-44-4

##### 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:	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

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

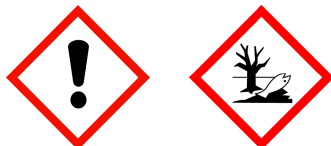
Serious eye damage/eye irritation: Eye Irrit. 2  
 Respiratory or skin sensitisation: Skin Sens. 1  
 Hazardous to the aquatic environment: Aquatic Acute 1  
 Hazardous to the aquatic environment: Aquatic Chronic 1

##### 2.2. Label elements

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

Signal word: Warning

Pictograms:



###### Hazard statements

H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H410 Very toxic to aquatic life with long lasting effects.

###### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 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 protection.  
 P302+P352 IF ON SKIN: Wash with plenty of Water and soap.  
 P333+P317 If skin irritation or rash occurs: Get medical help.

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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.
P391	Collect spillage.
P501	Dispose of contents/container to .

#### 2.3. Other hazards

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

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

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### Hazardous components

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.9))	
7212-44-4	NATURAL NEROLIDOL	>90 %
	Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H319 H317 H400 H410	
5392-40-5	NATURAL CITRAL	<1 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 2; H315 H319 H317 H401	
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	<1 %
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H304 H400 H410	

### 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.

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

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#### **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**

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#### 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. Suitable gloves type: Disposable gloves + NBR

##### 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:	-75 °C
Boiling point or initial boiling point and boiling range:	263 °C
Flammability:	not determined
Lower explosion limits:	0,7 vol. %
Upper explosion limits:	4,5 vol. %
Flash point:	96 °C
Auto-ignition temperature:	237 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic: (at 40 °C)	6,41 mm <sup>2</sup> /s
Water solubility: (at 20 °C)	0,014 g/L
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	4,5-5,86
Vapour pressure: (at 20 °C)	0,0024 hPa
Density (at 20 °C):	0,88 g/cm <sup>3</sup>
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

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Evaporation rate:	not determined
Solvent content:	0%
Solid content:	0%
Viscosity / dynamic: (at 20 °C)	13,8 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
7212-44-4	NATURAL NEROLIDOL				
	oral	LD50 mg/kg >5000	Rat	SDS MERCK	
	dermal	LD50 mg/kg >5000	Rabbit	REACH Dossier	
5392-40-5	NATURAL CITRAL				
	oral	LD50 mg/kg 6800	Rat	REACH registration	
	dermal	LD50 mg/kg >2000	Rat	REACH registration	
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50 mg/kg 5300	Rat	IFA GESTIS	
	dermal	LD50 mg/kg >5000	Rabbit	REACH registration	OECD 402

###### Irritation and corrosivity

Causes serious eye irritation.

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

###### Sensitising effects

May cause an allergic skin reaction. (NATURAL NEROLIDOL; NATURAL CITRAL; (R)-p-mentha-1,8-diene, d-limonene)

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**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.

**Aspiration hazard**

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

**11.2. Information on other hazards****Endocrine disrupting properties**

No information available.

**Further information**

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

**SECTION 12: Ecological information****12.1. Toxicity**

Very toxic to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7212-44-4	NATURAL NEROLIDOL					
	Acute fish toxicity	LC50 mg/l	1,43	96 h	Pimephales promelas (fathead minnow)	REACH Dossier ASTM standards. Method: E03-05
	Acute algae toxicity	ErC50	2 mg/l	72 h	Desmodesmus subspicatus	REACH Dossier OECD 201
	Acute crustacea toxicity	EC50 mg/l	0,51	48 h	Daphnia magna (Big water flea)	REACH Dossier EU Method C.2
	Fish toxicity	NOEC mg/l	0,64	4 d	Pimephales promelas (fathead minnow)	REACH Dossier
	Algae toxicity	NOEC mg/l	0,44	3 d	Desmodesmus subspicatus	REACH Dossier OECD 201
	Acute bacteria toxicity	(EC50 mg/l)	>1000	0,5 h	Activated sludge	REACH Dossier OECD 209
5392-40-5	NATURAL CITRAL					
	Acute fish toxicity	LC50 mg/l	6,78	96 h	Leuciscus idus (golden orfe)	REACH registration DIN 38412 L
	Acute algae toxicity	ErC50 mg/l	103,8	72 h	Desmodesmus subspicatus	REACH registration DIN 38412 L9
	Acute crustacea toxicity	EC50	6,8 mg/l	48 h	Daphnia magna (Big water flea)	REACH registration Directive 79/831 EWG, C2 annex V
	Acute bacteria toxicity	(EC50 mg/l)	160	0,5 h	Activated sludge	REACH registration OECD 209
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene					
	Acute fish toxicity	LC50 mg/l	0,72	96 h	Pimephales promelas (fathead minnow)	REACH registration OECD 203
	Acute algae toxicity	ErC50 mg/l	0,32	72 h	Pseudokirchneriella subcapitata	REACH registration OECD 201
	Acute crustacea toxicity	EC50 mg/l	0,307	48 h	Daphnia magna (Big water flea)	REACH registration OECD 202
	Fish toxicity	NOEC mg/l	0,37	8 d	Pimephales promelas (fathead minnow)	REACH Registration OECD 212
	Acute bacteria toxicity	(EC50 mg/l)	209	3 h	Activated sludge	REACH registration OECD 209

#### 12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
7212-44-4	NATURAL NEROLIDOL			
	OECD 301F	78%	20	REACH Dossier
	Readily biodegradable (according to OECD criteria).			
	OECD 301F	68%	14	REACH Dossier
	Readily biodegradable (according to OECD criteria).			
	OECD 301F	16%	4	REACH Dossier
	Readily biodegradable (according to OECD criteria).			
5392-40-5	NATURAL CITRAL			
	OECD 301C	85-95%	28	REACH registration
	Readily biodegradable (according to OECD criteria).			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			
	OECD 301D	80%	28	REACH Registration
	Readily biodegradable (according to OECD criteria).			
	OECD 301D	71%	14	REACH Registration
	Readily biodegradable (according to OECD criteria).			
	OECD 301D	41%	7	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
7212-44-4	NATURAL NEROLIDOL	5,86
5392-40-5	NATURAL CITRAL	2,76
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,5

#### BCF

CAS No	Chemical name	BCF	Species	Source
7212-44-4	NATURAL NEROLIDOL	-		REACH Dossier
5392-40-5	NATURAL CITRAL	89,72	-	REACH Dossier
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	690,1	aquatic species	REACH registration

#### 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.

No information available.

#### 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



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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)

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

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

#### **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

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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****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>  
UVCB: Unknown or Variable Composition, Complex Reaction Products, and Biological Materials  
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.