

Safety Data Sheet

according to 29 CFR 1910.1200(g)

NATURAL NEROLIDOL (CABREUVA OIL FRACTIONS)

Revision date: 08/09/2023

Product code: 277200US

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3. Composition/information on ingredients**Substances****Hazardous components**

CAS No	Components	Quantity
7212-44-4	NATURAL NEROLIDOL	>90 %
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	<1 %
5392-40-5	NATURAL CITRAL	<1 %

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 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.

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. 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. Use personal protection equipment.

Environmental precautions

Do not allow to enter into surface water or drains.

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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.

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, 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.

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 limits

CAS No	Substance	ppm	mg/m ³	f/cc	Category	Origin
5392-40-5	Citral (inhalable fraction and vapor)	5			TWA (8 h)	ACGIH-2022

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

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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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid	
Color:	Colourless to pale yellow	
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 ² /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
Vapor pressure: (at 20 °C)		0,0024 hPa
Density (at 20 °C):		0,88 g/cm ³
Relative vapour density:		not determined

Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive. not hazard of explosion 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)	13,8 mPa·s

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.

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Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

none/none

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
7212-44-4	NATURAL NEROLIDOL				
	oral	LD50 >5000 mg/kg	Rat	SDS MERCK	
	dermal	LD50 >5000 mg/kg	Rabbit	REACH Dossier	
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50 5300 mg/kg	Rat	IFA GESTIS	
	dermal	LD50 >5000 mg/kg	Rabbit	REACH registration	OECD 402
5392-40-5	NATURAL CITRAL				
	oral	LD50 6800 mg/kg	Rat	REACH registration	
	dermal	LD50 >2000 mg/kg	Rat	REACH registration	

Irritation and corrosivity

Causes serious eye irritation

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

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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):

d-Limonene (CAS 5989-27-5) is listed in group 3.

Carcinogenicity (NTP):

Not listed.

Aspiration hazard

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

Information on other hazards

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Endocrine disrupting properties

No information available.

Further information

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

12. Ecological information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

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

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

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Partition coefficient n-octanol/water

CAS No	Components	Log Pow
7212-44-4	NATURAL NEROLIDOL	5,86
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,5
5392-40-5	NATURAL CITRAL	2,76

BCF

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

Mobility in soil

The product has not been tested.

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.

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.

Transport hazard class(es):

9

Packing group:

III

Hazard label:

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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 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

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: NEROLIDOL
D-LIMONENE

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 NEROLIDOL (7212-44-4): Immediate (acute) health hazard
- (R)-p-mentha-1,8-diene, d-limonene (5989-27-5): Fire hazard, Immediate (acute) health hazard
- NATURAL CITRAL (5392-40-5): 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

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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>
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).

Other data

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.