

Trade name: LINARI-MONDO

Current version : 4.0.0, issued: 26.05.2021

Replaced version: 3.0.0, issued: 10.05.2021

Region: GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name

LINARI-MONDO**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses of the substance or mixture

Fragrances

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

LINARI GmbH
Jaffestrasse 12 | DOCK 2
21109 Hamburg
Germany

Telephone no. +49 40-7566850

Fax no. +49 40-7534505

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

Emergency CONTACT (24-Hour-Number) international:

GBK GmbH - Global Regulatory Compliance +49 (0)6132-84463

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Aquatic Chronic 2; H411

Eye Irrit. 2; H319

Flam. Liq. 3; H226

Skin Sens. 1; H317

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

Hazard pictograms



GHS02



GHS07



GHS09

Signal word

Warning

Hazardous component(s) to be indicated on label:

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1 one

Hazard statement(s)

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H226 Flammable liquid and vapour.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.

Hazard statements (EU)

EUH208 Contains Coumarin, linalyl acetate, [3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one, [3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene. May produce an allergic reaction.

Precautionary statement(s)

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 Avoid release to the environment.
 P280 Wear protective gloves.
 P391 Collect spillage.
 P501 Dispose of contents/container to a facility in accordance with local/regional/national/international regulations.

2.3 Other hazards

PBT assessment

The components of this product are not considered to be PBT (PBT = persistent, bioaccumulative, toxic) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

vPvB assessment

The components of this product are not considered to be vPvB (vPvB = very persistent, very bioaccumulative) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable. The product is not a substance.

3.2 Mixtures**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration %
1	ethanol		
	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 70.00 - < 90.00 wt%
2	1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
	1222-05-5 214-946-9 603-212-00-7 -	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	< 5.00 wt%
3	1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
	54464-57-2 259-174-3 - -	Aquatic Chronic 1; H410 Skin Sens. 1; H317 Skin Irrit. 2; H315	< 2.50 wt%
4	Coumarin		
	91-64-5 202-086-7 - 01-2119949300-45	Acute Tox. 4; H302 Skin Sens. 1; H317 Aquatic Chronic 3; H412	< 2.50 wt%
5	pentyl-salicylate		

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	2050-08-0 218-080-2 - -	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302	< 2.50	wt%
6	linalyl acetate			
	115-95-7 204-116-4 - -	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	< 2.50	wt%
7	[3R-(3alpha,3beta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one			
	32388-55-9 251-020-3 - 01-2119969651-28	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Skin Sens. 1B; H317	< 0.50	wt%
8	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene			
	67874-81-1 267-510-5 - 01-2120228335-61	Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	< 0.50	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	Eye Irrit. 2; H319: C >= 50%	-	-

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

In case of persisting adverse effects, consult a physician.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects consult a physician. If unconscious place in recovery position and seek medical advice.

After skin contact

In case of contact with skin wash off immediately with soap and water. Remove contaminated clothing. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. If swallowed drink plenty of water and seek medical treatment. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Foam; Extinguishing powder; Carbon dioxide; Water spray jet

Unsuitable extinguishing media

High power water jet

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5.2 Special hazards arising from the substance or mixture

Formation of explosive mixtures with air is possible. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Exclude sources of ignition and ventilate the area. Avoid contact with skin, eyes and clothing. Refer to protective measures listed in sections 7 and 8.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. After worktime and during work intervals the affected skin areas must be thoroughly cleaned. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Store product in closed containers. Always keep in containers of same material as the original.

Incompatible products

Do not store together with fire promoting substances.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

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No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
List of approved workplace exposure limits (WELs) / EH40			
Ethanol			
	WEL long-term (8-hr TWA reference period)	1920	mg/m ³ 1000 ppm

DNEL, DMEL and PNEC values**DNEL values (worker)**

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	ethanol	64-17-5 200-578-6		
	dermal	Long term (chronic)	systemic	343 mg/kg/day
	inhalative	Long term (chronic)	systemic	950 mg/m ³
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9 251-020-3		
	dermal	Long term (chronic)	systemic	0.333 mg/kg/day
	inhalative	Long term (chronic)	systemic	1.17 mg/m ³
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1 267-510-5		
	dermal	Long term (chronic)	systemic	4.5 mg/kg/day
	dermal	Long term (chronic)	local	2.03 mg/cm ²
	inhalative	Long term (chronic)	systemic	16.1 mg/m ³

DNEL value (consumer)

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	ethanol	64-17-5 200-578-6		
	oral	Long term (chronic)	systemic	87 mg/kg/day
	dermal	Long term (chronic)	systemic	206 mg/kg/day
	inhalative	Long term (chronic)	systemic	114 mg/m ³
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9 251-020-3		
	oral	Long term (chronic)	systemic	0.167 mg/kg/day
	dermal	Long term (chronic)	systemic	0.167 mg/kg/day
	inhalative	Long term (chronic)	systemic	0.29 mg/m ³
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1 267-510-5		
	oral	Long term (chronic)	systemic	2.7 mg/kg/day
	dermal	Long term (chronic)	systemic	2.7 mg/kg/day
	dermal	Long term (chronic)	local	1.22 mg/cm ²
	inhalative	Long term (chronic)	systemic	4.7 mg/m ³

PNEC values

No	Substance name	CAS / EC no	
	ecological compartment	Type	Value
1	ethanol		64-17-5 200-578-6
	water	fresh water	0.96 mg/L
	water	Aqua intermittent	2.75 mg/L
	water	marine water	0.79 mg/L
	water	fresh water sediment	3.6 mg/kg dry weight
	water	marine water sediment	2.9 mg/L
	soil	-	0.63 mg/kg dry weight
	sewage treatment plant	-	580 mg/L
	secondary poisoning	-	0.38 mg/kg food
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8		32388-55-9

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tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one		251-020-3	
water	fresh water	1.74	µg/L
water	marine water	0.174	µg/L
water	Aqua intermittent	8.6	µg/L
water	fresh water sediment	24.4	mg/kg dry weight
water	marine water sediment	2.44	mg/kg dry weight
soil	-	4.87	mg/kg dry weight
sewage treatment plant	-	10	mg/L
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1 267-510-5	
water	fresh water	0.43	µg/L
water	marine water	0.043	µg/L
water	fresh water sediment	1.29	mg/kg dry weight
water	marine water sediment	0.129	mg/kg dry weight
soil	-	0.257	mg/kg dry weight
sewage treatment plant	-	100	mg/L

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. Combination filter (EN 14387), filter type A - brown; In case of aerosol, vapour and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	butyl rubber		
Material thickness		0.5	mm
Breakthrough time	>	480	min

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation
liquid
Form/Colour
liquid
colourless
Odour

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perfumed-like			
pH value			
Value	6.2		
Boiling point / boiling range			
Value	78	°C	
Reference substance	Ethanol		
Melting point/freezing point			
Value	-114	°C	
Reference substance	Ethanol		
Decomposition temperature			
No data available			
Flash point			
Value	32	°C	
Method	Cleveland open cup		
Ignition temperature			
No data available			
Auto-ignition temperature			
Value	425	°C	
Reference substance	Ethanol		
Explosive properties			
This product is not explosive. In and after use danger of production of inflammable compounds.			
Flammability			
No data available			
Lower explosion limit			
Value	3.5	% vol	
Reference substance	Ethanol		
Upper explosion limit			
Value	15	% vol	
Reference substance	Ethanol		
Vapour pressure			
Value	57	mbar	
Reference temperature	20	°C	
Reference substance	Ethanol		
Relative vapour density			
Comments	Air = 1		
Comments	Heavier than air.		
Relative density			
No data available			
Density			
No data available			
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
log Pow		-0.35	
Reference temperature		24	°C
with reference to		pH 7,4	
Method		OECD 107	
Source		ECHA	

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2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
log Pow		5.6	- 5.9
Method		OECD 117	
Source		ECHA	
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
log Pow		5.1	
Reference temperature		25	°C
Method		OECD 117	
Source		ECHA	

Viscosity

No data available

Particle characteristics**9.2 Other information****Other information**

No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use. Generation of flammable vapor-air mixtures possible.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Static discharges.

10.5 Incompatible materials

Reactions with strong oxidising agents. Reactions with strong acids. Alkali metals; Halogenated compounds

10.6 Hazardous decomposition products

None, if handled according to intended use.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LD50		10470	mg/kg bodyweight
Species	rat		
with reference to	95% ethanol in water		
Method	OECD 401		
Source	ECHA		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
LD50		4500	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		

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3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
LD50	>	5000	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		

Acute dermal toxicity

No	Substance name	CAS no.	EC no.
1	[3R-(3alpha,3beta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
LD50	>	5000	mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		
2	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
LD50	>	5000	mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		

Acute inhalational toxicity

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LC50		124.7	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		

Skin corrosion/irritation

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	non-irritant		
2	[3R-(3alpha,3beta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
Method	OECD 439		
Source	ECHA		
Evaluation	non-irritant		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
Method	OECD 439		
Source	ECHA		
Evaluation	non-irritant		

Serious eye damage/irritation

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		

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2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	non-irritant		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
Method	OECD 438		
Source	ECHA		
Evaluation	non-irritant		

Respiratory or skin sensitisation

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Route of exposure	Skin		
Species	mouse		
Source	ECHA		
Evaluation	non-sensitizing		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
Route of exposure	Skin		
Species	mouse		
Method	OECD 429		
Source	ECHA		
Evaluation	sensitizing		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
Route of exposure	Skin		
Method	OECD 429		
Source	ECHA		
Evaluation	sensitizing		

Germ cell mutagenicity

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Reproduction toxicity

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Route of exposure	oral		
NOAEL			
Type of examination	2 generation study		
Species	mouse		
Method	OECD 416		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	inhalational		
NOAEL			

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Type of examination	Prenatal Developmental Toxicity Study
Species	rat
Method	OECD 414
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.
2	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene 67874-81-1 267-510-5
Method	OECD 422
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

STOT - single exposure			
No data available			

STOT - repeated exposure			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Route of exposure		oral	
Duration of exposure		14	week/s
Species		rat	
Target organ		kidneys	
Method		OECD 408	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
2	[3R-(3alpha,3beta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one 32388-55-9 251-020-3		
Method		OECD 411	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene 67874-81-1 267-510-5		
Method		OECD 422	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Aspiration hazard			
No data available			

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
LC50		14200	mg/l
Duration of exposure		96	h

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Species	Pimephales promelas		
Method	EPA		
Source	ECHA		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
LC50		3.0	mg/l
Duration of exposure		96	h
Species	Pimephales promelas		
Method	OECD 203		
Source	ECHA		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
LC50		0.43	mg/l
Duration of exposure		96	h
Species	Cyprinus carpio		
Method	OECD 203		
Source	ECHA		

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
EC50		5012	mg/l
Duration of exposure		48	h
Species	Ceriodaphnia dubia		
Method	ASTM Standard E 729-80		
Source	ECHA		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
EC50		0.86	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
EC50		0.48	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		

Toxicity to Daphnia (chronic)

No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
NOEC		9.6	mg/l
Duration of exposure		9	day(s)
Species	Daphnia magna		
Source	ECHA		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
NOEC		0.087	mg/l
Duration of exposure		21	day(s)
Species	Daphnia magna		
Method	OECD 211		

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Source	ECHA
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Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
EC50		275	mg/l
Duration of exposure		72	h
Species	Chlorella vulgaris		
Method	OECD 201		
Source	ECHA		
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
EC50		2.8	mg/l
Duration of exposure		96	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
ErC50		>	1.80 mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No	Substance name	CAS no.	EC no.
1	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
EL50		>	1000 mg/l
Species	activated sludge		
Method	OECD 209		
Source	ECHA		

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
Type	aerobic biodegradation		
Value	appr.	84	%
Duration		20	day(s)
Method	OECD		
Source	ECHA		
Evaluation	readily biodegradable		
Value			%
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
Value		36	%
Duration		28	day(s)
Method	OECD 301 F		
Source	ECHA		
Evaluation	not readily biodegradable		

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No data available			

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No	Substance name	CAS no.	EC no.
1	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
BCF		3920	
Species		Oncorhynchus mykiss	
Method		OECD 305	
Source		ECHA	
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	ethanol	64-17-5	200-578-6
log Pow		-0.35	
Reference temperature		24 °C	
with reference to		pH 7,4	
Method		OECD 107	
Source		ECHA	
2	[3R-(3alpha,3abeta,7beta,8alpha)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8 tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one	32388-55-9	251-020-3
log Pow		5.6 - 5.9	
Method		OECD 117	
Source		ECHA	
3	[3R-(3alpha,3beta,6alpha,7beta,8alpha)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene	67874-81-1	267-510-5
log Pow		5.1	
Reference temperature		25 °C	
Method		OECD 117	
Source		ECHA	

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	The components of this product are not considered to be PBT (PBT = persistent, bioaccumulative, toxic) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).
vPvB assessment	The components of this product are not considered to be vPvB (vPvB = very persistent, very bioaccumulative) according to Annex XIII of Regulation (EC) 1907/2006 (REACH).

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

In accordance with regulations for special waste, must be taken to a special waste disposal.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	3
Classification code	F1
Packing group	III
Hazard identification no.	30
UN number	UN1266
Proper shipping name	PERFUMERY PRODUCTS
Tunnel restriction code	D/E
Label	3
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	3
Packing group	III
UN number	UN1266
Proper shipping name	PERFUMERY PRODUCTS
Technical name	1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
EmS	F-E, S-D
Label	3
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	III
UN number	UN1266
Proper shipping name	Perfumery products
Label	3

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:

E2, P5c

If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Creation of the safety data sheetUMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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