Safety Data Sheet

According to Regulation (EC) No 1907/2006

Horizon Deosoft Iris

Revision: 2024-08-01 **Version:** 04.0

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

1.1 Product identifier

Trade name: Horizon Deosoft Iris

UFI: F5N1-E0XN-400U-XUS7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use:	Laundry conditioner. For professional use only.
Uses advised against:	Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :
AISE_SWED_PW_8b_1
AISE_SWED_PW_1_1
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssenbroeksedijk 2, 3542DN Utrecht], The Netherlands

Tel: 01 8081808 (9am - 5pm Mon-Fri)
Email: dublin.orders@solenis.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible).
National Poisons Information Centre
Tel: 01 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Tel: 01 809 2566 (health care professionals).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye irritation, Category 2 (H319)
Skin sensitisation, Category 1 (H317)
Chronic aquatic toxicity, Category 3 (H412)

2.2 Label elements

Signal word: Warning.

Contains isoeugenol (Isoeugenol), 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one (Tetramethyl Acetyloctahydronaphtalenes), alpha-hexylcinnamaldehyde (Hexyl Cinnamal), methyl non-2-ynoate (Methyl Octine Carbonate)

Hazard statements:
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:
P280 - Wear protective gloves.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	931-203-0	-	01-2119463889-16	Chronic aquatic toxicity, Category 3 (H412)		3-10
C12-14 alcohols, ethoxylated (7EO)	[4]	68439-50-9	[4]	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318) Chronic aquatic toxicity, Category 3 (H412)		1-3
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	259-174-3	54464-57-2	01-2119489989-04	Skin irritation, Category 2 (H315) Skin sensitisation, Sub-category 1B (H317) Chronic aquatic toxicity, Category 1 M=1 (H410)		0.1-1
alpha-hexylcinnamaldehyde	202-983-3	101-86-0	01-2119533092-50	Skin sensitisation, Sub-category 1B (H317) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 2 (H411)		0.1-1
methyl non-2-ynoate	203-909-2	111-80-8	01-2120139912-55	Acute toxicity - Oral, Category 4 (H302) Skin irritation, Category 2 (H315) Skin sensitisation, Sub-category 1A (H317) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 3 (H412)		0.01-0.1
isoeugenol	202-590-7	97-54-1	01-2120223682-61	Skin sensitisation, Sub-category 1A (H317)		0.01-0.1

Specific concentration limits
isoeugenol:
• Skin sensitisation, Category 1 (H317) >= 0.01%

Workplace exposure limit(s), if available, are listed in subsection 8.1.
ATE, if available, are listed in section 11.
[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information: Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident.

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: May cause an allergic skin reaction.

Eye contact: Causes severe irritation.

Ingestion: No known effects or symptoms in normal use.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable gloves.

6.2 Environmental precautions
Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up
Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections
For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire and explosions:
No special precautions required.

Measures required to protect the environment:
For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless adviced by Diversey. Wash hands before breaks and at the end of workday. Take off contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. Keep away from heat and direct sunlight.
For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)
No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits

Air limit values, if available:

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values
Human exposure
DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	-	-	7.5
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	-	-	312.5
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available

methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	-	-	187.5
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

DNEL/DMEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	-	-	44
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	-	-	-	13
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	0.065	0.0065	-	2.96
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	141	14.1	574	-
C12-14 alcohols, ethoxylated (7EO)	No data available	No data available	No data available	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	No data available	No data available	No data available	No data available
alpha-hexylcinnamaldehyde	No data available	No data available	No data available	No data available
methyl non-2-ynoate	No data available	No data available	No data available	No data available
isoeugenol	No data available	No data available	No data available	No data available

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.
If available, please refer to the product information sheet for application and handling instructions.
Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Automatic transfer and dilution	AISE_SWED_PW_8b_1	PW	PROC 8b	60	ERC8b

Personal protective equipment
Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 16321 / EN 166).
Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 0.1

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: No special requirements under normal use conditions.

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Automatic application in a dedicated closed system	AISE_SWED_PW_1_1	PW	PROC 1	480	ERC8a
Automatic application in a dedicated system	AISE_SWED_PW_4_1	PW	PROC 4	480	ERC8a

Personal protective equipment
Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
Information in this section refers to the product, unless it is specifically stated that substance data is listed

Method / remark

Physical state: Liquid
Colour: Opaque , Pale , Pink
Odour: Product specific
Odour threshold: Not applicable
Melting point/freezing point (°C): Not determined — Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined — See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	> 82	Method not given	
C12-14 alcohols, ethoxylated (7EO)	No data available		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available		
alpha-hexylcinnamaldehyde	No data available		

methyl non-2-ynoate	No data available		
isoeugenol	No data available		

Method / remark

Flammability (solid, gas): Not applicable to liquids
Flammability (liquid): Not flammable.
Flash point (°C): > 60 °C — closed cup
Sustained combustion: The product does not sustain combustion — Weight of evidence
(UN Manual of Tests and Criteria, section 32, L.2)
Lower and upper explosion limit/flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
pH: ≈ 3 (neat) — ISO 4316
Dilution pH: ≈ 6 (0.1 %) — ISO 4316
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available		
C12-14 alcohols, ethoxylated (7EO)	Soluble	Method not given	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available		
alpha-hexylcinnamaldehyde	No data available		
methyl non-2-ynoate	No data available		
isoeugenol	No data available		

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Vapour pressure: Not determined — See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available		
C12-14 alcohols, ethoxylated (7EO)	No data available		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available		
alpha-hexylcinnamaldehyde	No data available		
methyl non-2-ynoate	No data available		
isoeugenol	No data available		

Method / remark

Relative density: ≈ 1.00 (20 °C) — OECD 109 (EU A.3)
Relative vapour density: No data available. — Not relevant to classification of this product
Particle characteristics: No data available. — Not applicable to liquids.

9.2 Other information
9.2.1 Information with regard to physical hazard classes
Explosive properties: Not explosive. Vapours may form explosive mixtures with air.
Oxidising properties: Not oxidising.
Corrosion to metals: Not corrosive

9.2.2 Other safety characteristics
No other relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
None known under normal use conditions.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Mixture data: .

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:.

Acute toxicity
Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Oral (mg/kg)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LD_{50}	5000	Rat	Method not given		Not established
C12-14 alcohols, ethoxylated (7EO)	LD_{50}	> 300 - 2000	Rat	Read across		Not established
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				Not established
alpha-hexylcinnamaldehyde		3100				Not established
methyl non-2-ynoate	LD_{50}	1600	Rat	Method not given		1600
isoeugenol		No data available				Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LD_{50}	> 2000	Rat	Method not given		Not established
C12-14 alcohols, ethoxylated (7EO)	LD_{50}	> 2000	Rabbit	Method not given		Not established
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				Not established
alpha-hexylcinnamaldehyde		No data available				Not established
methyl non-2-ynoate		No data available				Not established
isoeugenol		No data available				Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			
C12-14 alcohols, ethoxylated (7EO)		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate		No data available			
isoeugenol		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust	ATE - inhalation, mist	ATE - inhalation,	ATE - inhalation, gas

	(mg/l)	(mg/l)	vapour (mg/l)	(mg/l)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not established	Not established	Not established	Not established
C12-14 alcohols, ethoxylated (7EO)	Not established	Not established	Not established	Not established
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)etha n-1-one	Not established	Not established	Not established	Not established
alpha-hexylcinnamaldehyde	Not established	Not established	Not established	Not established
methyl non-2-ynoate	Not established	Not established	Not established	Not established
isoeugenol	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)
C12-14 alcohols, ethoxylated (7EO)	Not irritant		Read across	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	4 hour(s)
C12-14 alcohols, ethoxylated (7EO)	Severe damage	Rabbit	Read across	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Not sensitising		Method not given	
C12-14 alcohols, ethoxylated (7EO)	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine,	No evidence of genotoxicity, negative test results	OECD 476 OECD 471 (EU	No data available	

di-Me sulfate-quaternized		B.12/13)		
C12-14 alcohols, ethoxylated (7EO)	No evidence for mutagenicity, negative test results	Read across	No data available	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available		No data available	
alpha-hexylcinnamaldehyde	No data available		No data available	
methyl non-2-ynoate	No data available		No data available	
isoeugenol	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
methyl non-2-ynoate	No data available
isoeugenol	No data available

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized			No data available				
C12-14 alcohols, ethoxylated (7EO)			No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one			No data available				
alpha-hexylcinnamaldehyde			No data available				
methyl non-2-ynoate			No data available				
isoeugenol			No data available				

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized			No data available					
C12-14 alcohols, ethoxylated (7EO)			No data available					
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one			No data available					
alpha-hexylcinnamaldehyde			No data available					
methyl non-2-ynoate			No data available					
isoeugenol			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
methyl non-2-ynoate	No data available
isoeugenol	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available
C12-14 alcohols, ethoxylated (7EO)	No data available
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available
alpha-hexylcinnamaldehyde	No data available
methyl non-2-ynoate	No data available
isoeugenol	No data available

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms
Effects and symptoms related to the product, if any, are listed in subsection 4.2.

11.2 Information on other hazards
11.2.1 Endocrine disrupting properties
Endocrine disrupting properties - Human data, if available:

11.2.2 Other information
No other relevant information available.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture .

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	LC_{50}	1.91	*Fish*	OECD 203 (EU C.1)	96
C12-14 alcohols, ethoxylated (7EO)	LC_{50}	> 1 - 10	*Brachydanio rerio*	Read across	96
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	LC_{50}	1.3	*Lepomis macrochirus*	OECD 203, semi-static	96
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate		No data available			
isoeugenol		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	EC_{50}	2.23	*Daphnia*	OECD 202 (EU C.2)	48
C12-14 alcohols, ethoxylated (7EO)	EC_{50}	> 1 - 10	*Daphnia magna Straus*	Method not given	48
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	EC_{50}	1.38	*Daphnia*	OECD 202, semi-static	48
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate	EC_{50}	1.1	*Daphnia magna Straus*	OECD 202, static	48
isoeugenol		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	E_rC_{50}	2.14	*Desmodesmus subspicatus*	OECD 201 (EU C.3)	72
C12-14 alcohols, ethoxylated (7EO)	NOEC	> 0.1 - 1	*Not specified*	DIN 38412, Part 9 OECD 201 (EU C.3)	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	EC_{50}	> 2.6	*Desmodesmus subspicatus*	OECD 201, static	72
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate	EC_{50}	0.83	*Pseudokirchneriella subcapitata*	OECD 201, static	72
isoeugenol		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			
C12-14 alcohols, ethoxylated (7EO)		No data available			
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate		No data available			
isoeugenol		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available			
C12-14 alcohols, ethoxylated (7EO)		> 1000	*Activated*	DEV-L2	

			sludge		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available			
alpha-hexylcinnamaldehyde		No data available			
methyl non-2-ynoate		No data available			
isoeugenol		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)	EC_{50}	10-100	*Not specified*	Method not given	96 hour(s)	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)	EC_{50}	10-100	*Not specified*	Method not given	48 hour(s)	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized		No data available				
C12-14 alcohols, ethoxylated (7EO)		No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		No data available				
alpha-hexylcinnamaldehyde		No data available				
methyl non-2-ynoate		No data available				
isoeugenol		No data available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	Activated sludge, aerobe Adapted activated sludge	CO_2 production	98.9% in 28 day(s)	OECD 301B	Readily biodegradable
C12-14 alcohols, ethoxylated (7EO)		CO_2 production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one					Not readily biodegradable.
alpha-hexylcinnamaldehyde					Not readily biodegradable.
methyl non-2-ynoate	Activated sludge, aerobe	Oxygen depletion	71% in 28 day(s)	OECD 301F	Readily biodegradable
isoeugenol		Oxygen depletion	79% in 28 day(s)	OECD 301F	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available			
C12-14 alcohols, ethoxylated (7EO)	No data available		No bioaccumulation expected	
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available			
alpha-hexylcinnamaldehyde	No data available			
methyl non-2-ynoate	No data available			
isoeugenol	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available				
C12-14 alcohols, ethoxylated (7EO)	No data available				
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available				
alpha-hexylcinnamaldehyde	No data available				
methyl non-2-ynoate	No data available				
isoeugenol	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
fatty acids, C16-18 (even numbered) and C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	No data available				
C12-14 alcohols, ethoxylated (7EO)	No data available	≥ 4			Potential for adsorption to soil
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	No data available				
alpha-hexylcinnamaldehyde	No data available				
methyl non-2-ynoate	No data available				
isoeugenol	No data available				

12.5 Results of PBT and vPvB assessment
Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties
Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects
No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:	The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.
European Waste Catalogue:	20 01 30 - detergents other than those mentioned in 20 01 29.

Empty packaging

Recommendation:	Dispose of observing national or local regulations.
Suitable cleaning agents:	Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number: Non-dangerous goods
14.2 UN proper shipping name: Non-dangerous goods
14.3 Transport hazard class(es): Non-dangerous goods
14.4 Packing group: Non-dangerous goods
14.5 Environmental hazards: Non-dangerous goods
14.6 Special precautions for user: Non-dangerous goods
14.7 Maritime transport in bulk according to IMO instruments: Non-dangerous goods

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
• Regulation (EC) No 1272/2008 - CLP
• Regulation (EC) No. 648/2004 - Detergents regulation
• substances identified as having endocrine disrupting properties in accordance with the criteria set out in Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605
• Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
• International Maritime Dangerous Goods (IMDG) Code

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to EC Detergents Regulation 648/2004

cationic surfactants	5 - 15 %
non-ionic surfactants	< 5 %
perfumes , Hexyl Cinnamal, Benzyl Alcohol, Coumarin, 2-Bromo-2-Nitropropane-1,3-Diol, Citronellol, Isoeugenol	

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Seveso - Classification: Not classified

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MS1001836 **Version:** 04.0 **Revision:** 2024-08-01

Reason for revision:
This data sheet contains changes from the previous version in section(s):, 2, 3, 6, 8, 9, 11, 12, 16

Classification procedure
The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Abbreviations and acronyms:
• AISE - The international Association for Soaps, Detergents and Maintenance Products
• ATE - Acute Toxicity Estimate
• DNEL - Derived No Effect Limit
• EC50 - effective concentration, 50%
• ERC - Environmental release categories
• EUH - CLP Specific hazard statement
• LC50 - Lethal Concentration, 50% / Median Lethal Concentration
• LCS - Life cycle stage
• LD50 - Lethal Dose, 50% / Median Lethal dose
• NOAEL - No observed adverse effect level
• NOEL - No observed effect level
• OECD - Organisation for Economic Cooperation and Development
• PBT - Persistent, Bioaccumulative and Toxic
• PNEC - Predicted No Effect Concentration
• PROC - Process categories
• REACH number - REACH registration number, without supplier specific part
• vPvB - very Persistent and very Bioaccumulative
• H302 - Harmful if swallowed.
• H315 - Causes skin irritation.
• H317 - May cause an allergic skin reaction.
• H318 - Causes serious eye damage.
• H400 - Very toxic to aquatic life.
• H410 - Very toxic to aquatic life with long lasting effects.
• H411 - Toxic to aquatic life with long lasting effects.
• H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet