Safety Data Sheet

Taski R5 Plus

Revision: 2018-12-17 **Version:** 01.0

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

1.1 Product identifier
Trade name: Taski R5 Plus

1.2 Recommended use and restrictions on use
For professional use only.

1.3 Details of the supplier of the safety data sheet
Diversey (Malaysia) Sdn. Bhd.

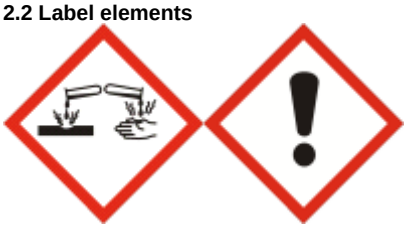
Contact details
No. 6, Jalan Pengarah U1/29, Seksyen U1
Hicom Glenmarie Industrial Park
40150 Shah Alam
Selangor, Malaysia
Tel : +603-5569-6363
Fax: +603-5569-6262

1.4 Emergency telephone number
Tel : +603-5569-6363

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Eye Dam. 1 (H318)
Skin Sens. 1 (H317)
Aquatic Chronic 3 (H412)

2.2 Label elements



Signal word: Danger.

Hazard statements:
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements:
P280 - Wear protective gloves and eye or face protection.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTRE, doctor or physician.

2.3 Other hazards
No other hazards known. Exposure and appropriate engineering controls are specified in subsection 8.2 exposure controls.

2.4 Classification diluted product:

Recommended maximum concentration (%): 10

Eye Irrit. 2 (H319)

2.5 Label elements diluted product

Warning.

Hazard statements:
H319 - Causes serious eye irritation.

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

Ingredient(s)	CAS number	Classification	Weight percent
alkyl alcohol ethoxylate	68439-46-3	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	10-20
2-tert-butylcyclohexyl acetate	88-41-5	Aquatic Chronic 2 (H411)	1-3
alpha-hexylcinnamaldehyde	101-86-0	Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Aquatic Chronic 2 (H411)	0.1-1
2-(4-tert-Butylbenzyl)propionaldehyde	80-54-6	Acute Tox. 4 (H302) Repr. 2 (H361) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	0.1-1
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	1506-02-1	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	0.1-1
1,2-benzisothiazol-3(2H)-one	2634-33-5	Acute Tox. 2 (H330) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	0.1-1
tridec-2-enenitrile	22629-49-8	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	0.01-0.1

This preparation contains less than 12% Sodium hydroxide/Potassium hydroxide which exempts from Poison Act 1952.
Workplace exposure limit(s), if available, are listed in subsection 8.1.
For the full text of the H 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: Take off immediately all contaminated clothing and wash it before re-use.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

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 or permanent damage.

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 and eye/face protection.

6.2 Environmental precautions
Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. 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
Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

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 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.
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:

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:
Covering activities such as filling and transfer of product to application equipment, flasks or buckets

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.

Personal protective equipment
Eye / face protection: Safety glasses or goggles (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 (%): 10

Appropriate engineering controls: Use only in well ventilated areas.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

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: Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.

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

	Method / remark
Physical State: Liquid	
Colour: Clear Dark Red	
Odour: Perfumed	
Odour threshold: Not applicable	
pH: ≈ 8 (neat)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	
Flammability (liquid): Not flammable.	
Flash point (°C): > 61	closed cup
Sustained combustion: Not applicable. *(UN Manual of Tests and Criteria, section 32, L.2)*	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Upper/lower flammability limit (%): Not determined	
Vapour pressure: Not determined	
Vapour density: Not determined	Not relevant to classification of this product
Relative density: ≈ 1.00 (20 °C)	OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Fully miscible	
Partition coefficient: n-octanol/water No information available. Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3	
Autoignition temperature: Not determined	
Decomposition temperature: Not applicable.	
Viscosity: Not determined	
Explosive properties: Not explosive.	
Oxidising properties: Not oxidising	

9.2 Other information
Surface tension (N/m): Not determined
Corrosion to metals: Not corrosive

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 toxicological effects

Mixture data:

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000
ATE - Inhalatory, mists (mg/l): >5

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)
alkyl alcohol ethoxylate	LD_{50}	> 300-2000	Rat	Method not given	
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	LD_{50}	1390		Method not given	
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	LD_{50}	1000		Method not given	
1,2-benzisothiazol-3(2H)-one	LD_{50}	> 2000	Rat		
tridec-2-enenitrile		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	LD_{50}	> 2000	Rabbit	Method not given	
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one	LD_{50}	> 2000	Rat	OECD 402 (EU B.3)	
tridec-2-enenitrile		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate		No data available			
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one		No data available			
tridec-2-enenitrile		No data			

		available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	Not irritant	Rabbit	Method not given	
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	Corrosive			
tridec-2-enenitrile	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	No data available			
tridec-2-enenitrile	No data available			

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	Not irritating to respiratory tract			
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	No data available			
tridec-2-enenitrile	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	Not sensitising	Guinea pig	Method not given	
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	Sensitising	Guinea pig		
tridec-2-enenitrile	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol ethoxylate	No data available			
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	No data available			
tridec-2-enenitrile	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)
alkyl alcohol ethoxylate	No evidence for mutagenicity, negative test results	Method not given	No data available	
2-tert-butylcyclohexyl acetate	No data available		No data available	
alpha-hexylcinnamaldehyde	No data available		No data available	
2-(4-tert-Butylbenzyl)propionaldehyde	No data available		No data available	
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available		No data available	
1,2-benzisothiazol-3(2H)-one	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
tridec-2-enenitrile	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
alkyl alcohol ethoxylate	No evidence for carcinogenicity, negative test results
2-tert-butylcyclohexyl acetate	No data available
alpha-hexylcinnamaldehyde	No data available
2-(4-tert-Butylbenzyl)propionaldehyde	No data available
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available
1,2-benzisothiazol-3(2H)-one	No data available
tridec-2-enenitrile	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
alkyl alcohol ethoxylate	NOAEL		> 250	Rat			No known significant effects or critical hazards
2-tert-butylcyclohexyl acetate			No data available				
alpha-hexylcinnamaldehyde			No data available				
2-(4-tert-Butylbenzyl)propionaldehyde			No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one			No data available				
1,2-benzisothiazol-3(2H)-one			No data available				
tridec-2-enenitrile			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
alkyl alcohol ethoxylate		No data available				
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available				
1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		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
alkyl alcohol ethoxylate	NOAEL	80		OECD 411 (EU B.28)		
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available				
1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		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
alkyl alcohol ethoxylate		No data available				
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available				

1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		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
alkyl alcohol ethoxylate		NOAEL	80		Method not given			
2-tert-butylcyclohexyl acetate			No data available					
alpha-hexylcinnamaldehyde			No data available					
2-(4-tert-Butylbenzyl)propionaldehyde			No data available					
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one			No data available					
1,2-benzisothiazol-3(2H)-one			No data available					
tridec-2-enenitrile			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	Not applicable
2-tert-butylcyclohexyl acetate	No data available
alpha-hexylcinnamaldehyde	No data available
2-(4-tert-Butylbenzyl)propionaldehyde	No data available
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available
1,2-benzisothiazol-3(2H)-one	No data available
tridec-2-enenitrile	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol ethoxylate	Not applicable
2-tert-butylcyclohexyl acetate	No data available
alpha-hexylcinnamaldehyde	No data available
2-(4-tert-Butylbenzyl)propionaldehyde	No data available
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available
1,2-benzisothiazol-3(2H)-one	No data available
tridec-2-enenitrile	No data available

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

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

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)
alkyl alcohol ethoxylate	LC_{50}	5 - 7	*Fish*	OECD 203 (EU C.1)	96
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one	LC_{50}	2.18	*Oncorhynchus mykiss*	OECD 203 (EU C.1)	
tridec-2-enenitrile		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	EC_{50}	5.3	*Daphnia magna Straus*	92/69/EEC	48
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one	EC_{50}	2.94	*Daphnia*	OECD 202 (EU C.2)	48
tridec-2-enenitrile		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol ethoxylate	EC_{50}	1.4 - 47	*Not specified*	92/69/EEC	72
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one	$E_r C_{50}$	0.11		OECD 201 (EU C.3)	72
tridec-2-enenitrile		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
alkyl alcohol ethoxylate		No data available			-
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one		No data available			
tridec-2-enenitrile		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
alkyl alcohol ethoxylate	EC_{50}	> 140	*Bacteria*	Method not given	
2-tert-butylcyclohexyl acetate		No data available			
alpha-hexylcinnamaldehyde		No data available			
2-(4-tert-Butylbenzyl)propionaldehyde		No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		No data available			
1,2-benzisothiazol-3(2H)-one	EC_{20}	3.3	*Activated sludge*	OECD 209	3 hour(s)
tridec-2-enenitrile		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol ethoxylate	EC_{10}	8983	*Not specified*	Method not given	21 day(s)	
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl) ethan-1-one		No data available				
1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol ethoxylate		2579	*Daphnia magna*	Method not given	21 day(s)	
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl) ethan-1-one		No data available				
1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		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
alkyl alcohol ethoxylate		No data available			-	
2-tert-butylcyclohexyl acetate		No data available				
alpha-hexylcinnamaldehyde		No data available				
2-(4-tert-Butylbenzyl)propionaldehyde		No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl) ethan-1-one		No data available				
1,2-benzisothiazol-3(2H)-one		No data available				
tridec-2-enenitrile		No data available				

Terrestrial toxicity

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

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol ethoxylate		No data 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
alkyl alcohol ethoxylate			80%	Method not given	Readily biodegradable
2-tert-butylcyclohexyl acetate				Method not given	Not readily biodegradable.
alpha-hexylcinnamaldehyde					Not readily biodegradable.
2-(4-tert-Butylbenzyl)propionaldehyde				OECD 301B	Readily biodegradable
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one					Not readily biodegradable.
1,2-benzisothiazol-3(2H)-one				Weight of evidence	Not readily biodegradable.
tridec-2-enenitrile					Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT_{50}	Method	Evaluation
1,2-benzisothiazol-3(2H)-one	Sewage treatment plant simulation	Primary degradation	> 90%	OECD 303A	Biodegradable

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
alkyl alcohol ethoxylate	3.11 - 4.19			
2-tert-butylcyclohexyl acetate	No data available			
alpha-hexylcinnamaldehyde	No data available			
2-(4-tert-Butylbenzyl)propionaldehyde	No data available			
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available			
1,2-benzisothiazol-3(2H)-one	0.7	OECD 107	No bioaccumulation expected	
tridec-2-enenitrile	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyl alcohol ethoxylate	< 500				
2-tert-butylcyclohexyl acetate	No data available				
alpha-hexylcinnamaldehyde	No data available				
2-(4-tert-Butylbenzyl)propionaldehyde	No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available				
1,2-benzisothiazol-3(2H)-one	6.95		OECD 305		
tridec-2-enenitrile	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
alkyl alcohol ethoxylate	No data available				High potential for mobility in soil
2-tert-butylcyclohexyl acetate	No data available				
alpha-hexylcinnamaldehyde	No data available				
2-(4-tert-Butylbenzyl)propionaldehyde	No data available				
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	No data available				
1,2-benzisothiazol-3(2H)-one	No data available				
tridec-2-enenitrile	No data available				

12.5 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.

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, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN 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 Transport in bulk according to Annex II of MARPOL and the IBC Code: Non-dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

- Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

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

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Full text of the H phrases mentioned in section 3:

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H316 - Causes mild skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H330 - Fatal if inhaled.
- H361 - Suspected of damaging fertility or the unborn child.
- 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.

Abbreviations and acronyms:

- DNEL - Derived No Effect Limit
- PNEC - Predicted No Effect Concentration
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet