

Zenith 3L Super Lemon Sinkwash

Revision: 2020-12-14

Version: 01.0

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

1.1 Product identifier

Trade name: Zenith 3L Super Lemon Sinkwash

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

Identified uses:

For professional and industrial use only.

AISE-P201 - Dishwash product. Manual process

Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

Diversey Ltd, Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Contact details

Zenith Hygiene Group
A1M Business Centre Dixons Hill Road Welham Green
Herts AL9 7JE
www.zhgplc.com
01707 270260
helpdesk@zhgplc.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Irrit. 2 (H319)

2.2 Label elements



Signal word: Warning.

Hazard statements:

H319 - Causes serious eye irritation.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	931-534-0	-	01-2119513401-57	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3		3-10

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				(H412)	
cocoamidopropyl betaine hydrogenated	931-333-8 931-513-6 931-296-8	-	01-2119489410-39 01-2119513359-38 01-2119488533-30	Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	1-3
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	931-292-6	-	01-2119490061-47	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	0.1-1

Workplace exposure limit(s), if available, are listed in subsection 8.1.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16.
ATE, if available, are listed in section 11.

SECTION 4: First aid measures

4.1 Description of first aid measures

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. 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:	No known effects or symptoms in normal use.
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

No special measures required.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

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, sawdust). 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. Wash hands before breaks and at the end of workday. Use only with adequate ventilation. Do not mix with other products. 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:

Recommended monitoring procedures, if available:

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

DNEL/DMEL and PNEC values**Human exposure**

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-	-	-	12.95
cocoamidopropyl betaine hydrogenated	-	-	-	7.5
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	0.44

DNEL 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)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available	-	No data available	2158.33
cocoamidopropyl betaine hydrogenated	No data available	-	No data available	12.5
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available	-	0.27 %	11

DNEL 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)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available	-	No data available	1295
cocoamidopropyl betaine hydrogenated	No data available	-	No data available	7.5
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available	-	0.27 %	5.5

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-	-	-	152.22
cocoamidopropyl betaine hydrogenated	-	-	-	44
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	6.2

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-	-	-	45.04
cocoamidopropyl betaine hydrogenated	-	-	-	13.04
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	-	-	-	1.53

Environmental exposure

Environmental exposure - PNEC

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Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	0.024	0.0024	0.0197	4
cocoamidopropyl betaine hydrogenated	0.0135	0.00135	-	3000
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	0.0335	0.00335	0.0335	24

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	0.767	0.0767	1.21	-
cocoamidopropyl betaine hydrogenated	1	0.1	0.8	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	5.24	0.524	1.02	-

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

Personal protective equipment

Eye / face protection: No special requirements under normal use conditions.
Hand protection: Not applicable.
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): 0.5

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

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: Clear , Yellow	
Odour: Product specific	
Odour threshold: Not applicable	
pH ≈ 7 (neat)	ISO 4316
Dilution pH: ≈ 7 (0.5 %)	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	See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available		
cocoamidopropyl betaine hydrogenated	100	Method not given	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	> 100	Method not given	

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Method / remark

Flammability (liquid): Not flammable.
Flash point (°C): Not applicable.
Sustained combustion: Not applicable.
 (UN Manual of Tests and Criteria, section 32, L.2)

Evaporation rate: Not determined
Flammability (solid, gas): Not applicable to liquids
Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined

See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	< 0.001	Method not given	25
cocoamidopropyl betaine hydrogenated	.?	Method not given	20
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	< 10	Method not given	25

Method / remark

Vapour density: Not determined
Relative density: ≈ 1.02 (20 °C)
Solubility in / Miscibility with Water: Fully miscible

Not relevant to classification of this product
 OECD 109 (EU A.3)

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Soluble	Method not given	20
cocoamidopropyl betaine hydrogenated	> .? Soluble	Method not given	20
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	409.5 Soluble	Method not given	20

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

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
Viscosity: ≈ 300 mPa.s (20 °C)
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

DM-006 Viscosity - Standard

9.2 Other information

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

Not relevant to classification of this product
 Weight of evidence

Substance data, dissociation constant, if 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 toxicological effects

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Skin irritation and corrosivity

Result: Not corrosive or irritant **Species:** Not applicable **Method:** Weight of evidence

Eye irritation and corrosivity

Result: Eye irritant 2 **Species:** Not applicable. **Method:** Weight of evidence

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 (mg/kg)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LD ₅₀	> 2000	Rat	OECD 401 (EU B.1)		Not established
cocoamidopropyl betaine hydrogenated	LD ₅₀	2335	Rat	Method not given		2335
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD ₅₀	> 300 - 2000	Rat	OECD 401 (EU B.1)		Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE (mg/kg)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LD ₅₀	6300	Rabbit	OECD 402 (EU B.3)		6300
cocoamidopropyl betaine hydrogenated	LD ₅₀	> 5000	Rat	OECD 402 (EU B.3)		5000
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LD ₅₀	> 5000	Rat	OECD 402 (EU B.3)		5000

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LC ₅₀	> 52 (mist)	Rat	OECD 403 (EU B.2)	4
cocoamidopropyl betaine hydrogenated	LC ₅₀	> 5 (mist)	Rat	Method not given	4
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Not established	Not established	Not established	Not established
cocoamidopropyl betaine hydrogenated	-	5	-	-
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Irritant	Rabbit	OECD 404 (EU B.4)	
cocoamidopropyl betaine hydrogenated	Mild irritant	Rabbit	OECD 404 (EU B.4)	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Severe damage	Rabbit	OECD 405 (EU B.5)	
cocoamidopropyl betaine hydrogenated	Severe damage	Rabbit	OECD 405 (EU B.5)	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available			
cocoamidopropyl betaine hydrogenated	No data available			
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
cocoamidopropyl betaine hydrogenated	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available			
cocoamidopropyl betaine hydrogenated	No data available			
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	Method not given
cocoamidopropyl betaine hydrogenated	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	

Carcinogenicity

Ingredient(s)	Effect
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No evidence for carcinogenicity, negative test results
cocoamidopropyl betaine hydrogenated	No evidence for carcinogenicity, weight-of-evidence
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts			No data available				No evidence for teratogenic effects
cocoamidopropyl betaine hydrogenated	NOEL	Developmental toxicity	300	Rat	OECD 414 (EU B.31), oral		
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	Teratogenic effects	25	Rat	Non guideline test		

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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
cocoamidopropyl betaine hydrogenated	NOAEL	300	Rat	OECD 408 (EU B.26)	90	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOAEL	13		OECD 422, oral		

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
cocoamidopropyl betaine hydrogenated		No data available				
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
cocoamidopropyl betaine hydrogenated		No data available				
Amines, C12-14 (even numbered)-alkyldimethyl,		No data				

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N-oxides		available			
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Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Oral	NOAEL	259	Rat	Method not given	24 month(s)		
cocoamidopropyl betaine hydrogenated			No data available					
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available
cocoamidopropyl betaine hydrogenated	No data available
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available
cocoamidopropyl betaine hydrogenated	No data available
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	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.

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)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	LC ₅₀	4.2	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
cocoamidopropyl betaine hydrogenated	LC ₅₀	1.11	<i>Fish</i>	OECD 203, semi-static	96
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	LC ₅₀	> 2.67 - 3.46	<i>Fish</i>	OECD 203, static	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	4.53	<i>Ceriodaphnia sp.</i>	OECD 202 (EU C.2)	48
cocoamidopropyl betaine hydrogenated	EC ₅₀	1.9	<i>Daphnia</i>	OECD 202, static	48
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC ₅₀	3.1	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	5.2		OECD 201 (EU C.3)	72
cocoamidopropyl betaine hydrogenated	E _r C ₅₀	2.4	<i>Not specified</i>	Method not given	72
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC ₅₀	0.1428	<i>Not specified</i>	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-

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cocoamidopropyl betaine hydrogenated	ErC ₅₀	0.74	<i>Skeletonema costatum</i> <i>Phaeodactylum tricornutum</i>	ISO 10253	72
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	EC ₅₀	230		OECD 209	
cocoamidopropyl betaine hydrogenated	EC ₅₀	3000	<i>Bacteria</i>	ISO 13641 (2003), anaerobic	16 hour(s)
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	EC ₁₀	> 24	<i>Bacteria</i>	Non guideline test	18 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
cocoamidopropyl betaine hydrogenated	NOEC	0.135	<i>Oncorhynchus mykiss</i>	OECD 210	37 day(s)	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	0.42	<i>Not specified</i>		302 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available				
cocoamidopropyl betaine hydrogenated	NOEC	0.3	<i>Daphnia magna</i>	OECD 211	21 day(s)	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	NOEC	0.7	<i>Daphnia magna</i>	Method not given	21 day(s)	

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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
cocoamidopropyl betaine hydrogenated	NOEC	≥ 846	<i>Eisenia fetida</i>		14	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
cocoamidopropyl betaine hydrogenated	NOEC	84.6	<i>Brassica alba</i> <i>Lepidium sativum</i> <i>Triticum aestivum</i>	OECD 208	17	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sulphonic acids, C14-16-alkane hydroxy and		No data			-	

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C14-16-alkene, sodium salts		available				
cocoamidopropyl betaine hydrogenated		No data available			-	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	Activated sludge, aerobe	CO ₂ production	> 80 % in 28 day(s)	OECD 301B	Readily biodegradable
cocoamidopropyl betaine hydrogenated	Activated sludge, aerobe	CO ₂ production	91.6 % in 28 day(s)	OECD 301B	Readily biodegradable
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides		CO ₂ production	90% in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
cocoamidopropyl betaine hydrogenated			76% in 28 day(s)	OECD 306	Readily biodegradable

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	-1.3	(EC) 440/2008, A.8	No bioaccumulation expected	
cocoamidopropyl betaine hydrogenated	4.2	Method not given	Low potential for bioaccumulation	
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	0.93	(EC) 440/2008, A.8	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available				
cocoamidopropyl betaine hydrogenated	71		QSAR	Low potential for bioaccumulation	
Amines, C12-14 (even numbered)-alkyldimeth	No data available				

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yl, N-oxides					
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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
sulphonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	No data available				Low potential for adsorption to soil
cocoamidopropyl betaine hydrogenated	2.0-5.1		QSAR		Potential for mobility in soil, soluble in water
Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	No data available				Low mobility in soil

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 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 29* - detergents containing dangerous substances.

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:** 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****EU regulations:**

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation

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

UFI: 150E-S1JM-6003-2JDV

Ingredients according to EC Detergents Regulation 648/2004

anionic surfactants

5 - 15 %

amphoteric surfactants, non-ionic surfactants

< 5 %

Sodium Benzoate, perfumes, 2-Bromo-2-Nitropropane-1,3-Diol

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

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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: MS1004874

Version: 01.0

Revision: 2020-12-14

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.

Full text of the H and EUH phrases mentioned in section 3:

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H400 - Very toxic to aquatic life.
- H411 - Toxic to aquatic life with long lasting effects.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- 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
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet