



Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Crystal A8

Revision: 2019-11-02

Version: 09.0

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

1.1 Product identifier

Trade name: Suma Crystal A8

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

Identified uses:

For professional use only.

AISE-P204 - Rinse aid. Automatic process

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

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: customerservice.uk@diversey.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
alkyl alcohol alkoxylate	[4]	111905-53-4	[4]	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412)		3-10
citric acid	201-069-1	77-92-9	01-2119457026-42	Eye Irrit. 2 (H319)		3-10
sodium cumenesulphonate	239-854-6	-	01-2119489411-37	Eye Irrit. 2 (H319)		1-3
alkyl alcohol alkoxylate	[4]	120313-48-6	[4]	Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)		1-3

Workplace exposure limit(s), if available, are listed in subsection 8.1.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

[11] Substance of Very High Concern (SVHC)

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

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

Dike 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. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. 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:

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
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
sodium cumenesulphonate	No data available	No data available	No data available	3.8
alkyl alcohol alkoxylate	-	-	No data available	-

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)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	No data available	-	No data available	-
sodium cumenesulphonate	No data available	No data available	No data available	7.6
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

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)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	No data available	-	No data available	-
sodium cumenesulphonate	No data available	No data available	No data available	3.8
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
sodium cumenesulphonate	No data available	No data available	No data available	53.6
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	-	-	-	-
sodium cumenesulphonate	No data available	No data available	No data available	13.2
alkyl alcohol alkoxylate	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)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	0.44	0.044	-	> 1000
sodium cumenesulphonate	0.23	0.023	2.3	100
alkyl alcohol alkoxylate	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/m ³)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
citric acid	34.6	3.46	33.1	-
sodium cumenesulphonate	0.862	0.086	0.037	No data available
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

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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: Avoid direct contact and/or splashes where possible. Train personnel.

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 166).

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.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 0.05

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, Green	
Odour: Product specific	
Odour threshold: Not applicable	
pH < 2 (neat)	ISO 4316
Dilution pH: ≈ 3 (0.05 %)	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)
alkyl alcohol alkoxylate	No data available		
citric acid	No data available		
sodium cumenesulphonate	> 100	Method not given	
alkyl alcohol alkoxylate	> 250	Method not given	

	Method / remark
Flammability (liquid): Not flammable.	
Flash point (°C): > 60 °C	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	

Substance data, flammability or explosive limits, if available:

Vapour pressure: Not determined

Method / remark
See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
alkyl alcohol alkoxylate	No data available		
citric acid	No data available		
sodium cumenesulphonate	No data available		
alkyl alcohol alkoxylate	< 10	Method not given	20

Vapour density: Not determined

Relative density: ≈ 1.04 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Method / remark
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)
alkyl alcohol alkoxylate	No data available		
citric acid	1630	Method not given	
sodium cumenesulphonate	Soluble		
alkyl alcohol alkoxylate	Insoluble	Method not given	

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.

Method / remark

Not relevant to classification of this product

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

Reacts with alkali. Keep away from products containing chlorine-based bleaching agents or sulphites.

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 to skin

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 alkoxylate	LD ₅₀	≥ 1000	Rat	Method not given	
citric acid	LD ₅₀	3000	Rat	Method not given	
sodium cumenesulphonate	LD ₅₀	> 7000	Rat	Method not given	
alkyl alcohol alkoxylate	LD ₅₀	> 2000	Rat	Weight of evidence	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
alkyl alcohol alkoxylate		No data available			
citric acid	LD ₅₀	> 2000	Rat	Method not given	
sodium cumenesulphonate	LD ₅₀	> 2000	Rabbit	Method not given	
alkyl alcohol alkoxylate		No data available		Weight of evidence	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol alkoxylate		No data available			
citric acid		No data available			
sodium cumenesulphonate	LC ₅₀	> 770	Rat	Method not given	4
alkyl alcohol alkoxylate		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	Irritant	Rabbit	OECD 404 (EU B.4)	
citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	
sodium cumenesulphonate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol alkoxylate	Irritant	Rabbit	Draize test	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	Irritant	Rabbit	OECD 405 (EU B.5)	
citric acid	Irritant	Rabbit	OECD 405 (EU B.5)	
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol alkoxylate	Not corrosive or irritant	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	No data available			
citric acid	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol alkoxylate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
alkyl alcohol alkoxylate	No data available			
citric acid	Not sensitising	Guinea pig	Method not given	
sodium cumenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol alkoxylate	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	No data available			
citric acid	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol alkoxylate	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

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Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
alkyl alcohol alkoxylate	No data available		No data available	
citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given
sodium cumenesulphonate	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
alkyl alcohol alkoxylate	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
alkyl alcohol alkoxylate	No data available
citric acid	No evidence for carcinogenicity, negative test results
sodium cumenesulphonate	No evidence for carcinogenicity, negative test results
alkyl alcohol alkoxylate	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 alkoxylate			No data available				
citric acid			No data available				No evidence for reproductive toxicity
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 3000	Rat	Non guideline test		
alkyl alcohol alkoxylate			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 alkoxylate		No data available				
citric acid		No data available				
sodium cumenesulphonate	NOAEL	763 - 3534		OECD 408 (EU B.26)	90	
alkyl alcohol alkoxylate		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 alkoxylate		No data available				
citric acid		No data available				
sodium cumenesulphonate	NOAEL	440	Mouse	Method not given	90	
alkyl alcohol alkoxylate		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 alkoxylate		No data available				
citric acid		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol alkoxylate		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 alkoxylate			No data available					
citric acid			No data available					
sodium cumenesulphonate	Dermal	NOAEL	727	Mouse	Method not given	24 month(s)		
alkyl alcohol alkoxylate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol alkoxylate	No data available

citric acid	No data available
sodium cumenesulphonate	No data available
alkyl alcohol alkoxylate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol alkoxylate	No data available
citric acid	No data available
sodium cumenesulphonate	No data available
alkyl alcohol alkoxylate	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)
alkyl alcohol alkoxylate	LC ₅₀	1 - 10	<i>Leuciscus idus</i>	Method not given	48
citric acid	LC ₅₀	440	<i>Leuciscus idus</i>	Method not given	48
sodium cumenesulphonate	LC ₅₀	> 1000	<i>Fish</i>	EPA-OPPTS 850.1075	96
alkyl alcohol alkoxylate	LC ₅₀	1 - 10	<i>Leuciscus idus</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol alkoxylate	EC ₅₀	1 - 10	<i>Not specified</i>	Method not given	48
citric acid	EC ₅₀	1535	<i>Daphnia magna Straus</i>	Method not given	24
sodium cumenesulphonate	EC ₅₀	> 1000	<i>Daphnia</i>	EPA-OPPTS 850.1010	48
alkyl alcohol alkoxylate	EC ₅₀	1	<i>Not specified</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
alkyl alcohol alkoxylate		No data available			-
citric acid	LC ₅₀	425	<i>Scenedesmus quadricauda</i>	Method not given	168
sodium cumenesulphonate	E _r C ₅₀	310	<i>Not specified</i>		72
alkyl alcohol alkoxylate	EC ₅₀	0.1 - 1	<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)
alkyl alcohol alkoxylate		No data available			-
citric acid		No data available			-
sodium cumenesulphonate		No data available			-
alkyl alcohol alkoxylate		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
alkyl alcohol alkoxylate	EC ₁₀	> 1000	<i>Activated sludge</i>	DEV-L2	
citric acid	EC ₅₀	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
sodium cumenesulphonate	E _r C ₅₀	> 1000	<i>Bacteria</i>	OECD 209	3 hour(s)
alkyl alcohol alkoxylate		1000	<i>Activated</i>	DIN EN ISO	

			sludge	8192-OECD 209-88/302/EEC	
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Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol alkoxylate		No data available				
citric acid		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol alkoxylate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol alkoxylate		No data available				
citric acid		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol alkoxylate	NOEC	>0.1- <1	<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
alkyl alcohol alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		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 alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		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 alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

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Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
alkyl alcohol alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		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 alkoxylate		No data available			-	
citric acid		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol alkoxylate		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 alkoxylate			> 60 % in 28 day(s)	OECD 301F	Readily biodegradable
citric acid			97 % in 28 day(s)	OECD 301B	Readily biodegradable
sodium cumenesulphonate	Activated sludge, aerobe	CO ₂ production	100 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyl alcohol alkoxylate		CO ₂ production	> 60% in 28 day(s)	OECD 301B	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
alkyl alcohol alkoxylate	No data available			
citric acid	-1.72		No bioaccumulation expected	
sodium cumenesulphonate	-1.1	Method not given	Low potential for bioaccumulation	
alkyl alcohol alkoxylate	-		No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyl alcohol alkoxylate	No data available				
citric acid	No data available				
sodium cumenesulphonate	No data available				
alkyl alcohol alkoxylate	-			No bioaccumulation expected	

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
alkyl alcohol alkoxylate	No data available				
citric acid	No data available				Potential for mobility in soil, soluble in water
sodium cumenesulphonate	No data available				
alkyl alcohol alkoxylate	No data available				Potential for adsorption to soil

12.5 Results of PBT and vPvB assessment

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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: 5484-Q0TY-Y00H-QS92

Ingredients according to EC Detergents Regulation 648/2004

non-ionic surfactants

5 - 15 %

anionic surfactants, polycarboxylates

< 5 %

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.

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

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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.
- H319 - Causes serious eye irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

Suma Crystal A8

- 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