

Suma Revoflow Pristine Pur-Eco A18

Revision: 2024-08-01

Version: 04.2

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

1.1 Product identifier

Trade name: Suma Revoflow Pristine Pur-Eco A18

UFI: P4K0-K06T-700A-8EED

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

Product use: Dish washing rinse aid.
For professional use only.
Uses advised against: Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_8b_2
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet

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

Contact details

Tandur Hf.
Hesthálsi 12, 110 Reykjavík
Tel. 5101200, Email: tandur@tandur.is

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible).
Poison Center: (+354) 543-2222
Emergency services: 112.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye irritation, Category 2 (H319)

2.2 Label elements



Signal word: Warning.

Hazard statements:

H319 - Causes serious eye irritation.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
Citric acid	201-069-1	-	[1]	Specific target organ toxicity - Single exposure, Category 3 (H335) Eye irritation, Category 2 (H319)		10-20
alkyl alcohol alkoxyate	[4]	9038-95-3	[4]	Acute toxicity - Oral, Category 4 (H302)		10-20
alkyl alcohol alkoxyate	[4]	111905-53-4	[4]	Acute toxicity - Oral, Category 4 (H302) Eye irritation, Category 2 (H319)		3-10

Suma Revoflow Pristine Pur-Eco A18

sodium cumenesulphonate	239-854-6	15763-76-5	01-211948941 1-37	Chronic aquatic toxicity, Category 3 (H412) Eye irritation, Category 2 (H319)		1-3
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Workplace exposure limit(s), if available, are listed in subsection 8.1.

ATE, if available, are listed in section 11.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

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

For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation:	Get medical attention or advice if you feel unwell.
Skin contact:	Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.
Eye contact:	Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.
Ingestion:	Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.
Self-protection of first aider:	Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	No known effects or symptoms in normal use.
Skin contact:	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

Wear eye/face protection.

6.2 Environmental precautions

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

Suma Revoflow Pristine Pur-Eco A18

other products unless advised by Diversey. Wash hands before breaks and at the end of workday. 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:

Recommended monitoring procedures, if available:

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

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

DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
Citric acid	-	-	-	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	3.8

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
Citric acid	No data available	-	No data available	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	136.25

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
Citric acid	No data available	-	No data available	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	68.1

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

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
Citric acid	-	-	-	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	26.9

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

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
Citric acid	-	-	-	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	6.6

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh	Surface water, marine	Intermittent (mg/l)	Sewage treatment

Suma Revoflow Pristine Pur-Eco A18

	(mg/l)	(mg/l)		plant (mg/l)
Citric acid	0.44	0.044	-	> 1000
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	0.23	0.023	2.3	100

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
Citric acid	34.6	3.46	33.1	-
alkyl alcohol alkoxylate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	0.862	0.0862	0.037	-

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Automatic transfer and dilution	AISE_SWED_PW_8b_2	PW	PROC 8b	60	ERC8b

Personal protective equipment

Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 16321 / EN 166).

Hand protection: 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 (% w/w): 0.05

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

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

REACH use scenarios considered for the diluted product:

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

Personal protective equipment

Eye / face protection: No special requirements under normal use conditions.

Hand protection: No special requirements under normal use conditions.

Body protection: No special requirements under normal use conditions.

Respiratory protection: No special requirements under normal use conditions.

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

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Information in this section refers to the product, unless it is specifically stated that substance data is listed

Method / remark

Physical state: Liquid
Colour: Clear , Green
Odour: Product specific

Suma Revoflow Pristine Pur-Eco A18

Odour threshold: Not applicable
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined

Not relevant to classification of this product
 See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
Citric acid	No data available		
alkyl alcohol alkoxylate	No data available		
alkyl alcohol alkoxylate	No data available		
sodium cumenesulphonate	No data available		

Method / remark

Flammability (solid, gas): Not applicable to liquids
Flammability (liquid): Not flammable.
Flash point (°C): Not determined
Sustained combustion: Not applicable.
 (UN Manual of Tests and Criteria, section 32, L.2)
Lower and upper explosion limit/flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
pH: = < 2 (neat)
Dilution pH: ≈ 3 (0.05 %)
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

ISO 4316
 ISO 4316

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
Citric acid	1630	Method not given	
alkyl alcohol alkoxylate	No data available		
alkyl alcohol alkoxylate	No data available		
sodium cumenesulphonate	493 Soluble	Method not given	20

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

Method / remark

Vapour pressure: Not determined

See substance data

Substance data, vapour pressure

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

Method / remark

Relative density: ≈ 1.08 (20 °C)
Relative vapour density: No data available.
Particle characteristics: No data available.

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

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties: Not explosive.
Oxidising properties: Not oxidising.
Corrosion to metals: Not corrosive

UN Manual of Tests and Criteria, section 37

9.2.2 Other safety characteristics

Acid reserve: ≈ -1.6 (g NaOH / 100g; pH=4)

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Suma Revoflow Pristine Pur-Eco A18

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

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 hazard classes as defined in Regulation (EC) No 1272/2008**

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

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

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Oral (mg/kg)
Citric acid	LD ₅₀	5400-11700	Rat	Method not given		Not established
alkyl alcohol alkoxylate	LD ₅₀	> 300-2000	Rat	OECD 423 (EU B.1 tris)		Not established
alkyl alcohol alkoxylate	LD ₅₀	≥ 300-2000	Rat	Method not given		Not established
sodium cumenesulphonate	LD ₅₀	> 7000	Rat	Method not given		Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
Citric acid	LD ₅₀	> 2000	Rat	Method not given		Not established
alkyl alcohol alkoxylate		No data available				Not established
alkyl alcohol alkoxylate		No data available				Not established
sodium cumenesulphonate	LD ₅₀	> 2000	Rabbit	Method not given		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Citric acid		No data available			
alkyl alcohol alkoxylate		No data available			
alkyl alcohol alkoxylate		No data available			
sodium cumenesulphonate	LC ₅₀	> 5 (mist) No mortality observed	Rat	Read across	3.87

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)
Citric acid	Not established	Not established	Not established	Not established
alkyl alcohol alkoxylate	Not established	Not established	Not established	Not established
alkyl alcohol alkoxylate	Not established	Not established	Not established	Not established
sodium cumenesulphonate	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time

Suma Revoflow Pristine Pur-Eco A18

Citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol alkoxylate	Not irritant	Rabbit	OECD 404 (EU B.4) Read across	
alkyl alcohol alkoxylate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
sodium cumenesulphonate	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
Citric acid	Severe damage Irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol alkoxylate	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5) Read across	
alkyl alcohol alkoxylate	Irritant	Rabbit	OECD 405 (EU B.5)	
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

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

Sensitisation

Sensitisation by skin contact

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

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
Citric acid	No data available			
alkyl alcohol alkoxylate	No data available			
alkyl alcohol alkoxylate	No data available			
sodium cumenesulphonate	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)
Citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given
alkyl alcohol alkoxylate	No data available		No data available	
alkyl alcohol alkoxylate	No data available		No data available	
sodium cumenesulphonate	No evidence for mutagenicity, negative test results	Method not given	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
Citric acid	No evidence for carcinogenicity, negative test results
alkyl alcohol alkoxylate	No data available
alkyl alcohol alkoxylate	No data available
sodium cumenesulphonate	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
Citric acid			No data available				No evidence for reproductive toxicity
alkyl alcohol alkoxylate			No data available				
alkyl alcohol alkoxylate			No data available				
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		No known significant effects or critical hazards

Repeated dose toxicity

Suma Revoflow Pristine Pur-Eco A18

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
Citric acid		No data available				
alkyl alcohol alkoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium cumenesulphonate	NOAEL	763 - 3534	Rat	OECD 408 (EU B.26)		No effects observed

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
Citric acid		No data available				
alkyl alcohol alkoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium cumenesulphonate		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
Citric acid		No data available				
alkyl alcohol alkoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium cumenesulphonate		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
Citric acid			No data available					
alkyl alcohol alkoxylate			No data available					
alkyl alcohol alkoxylate			No data available					
sodium cumenesulphonate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
Citric acid	No data available
alkyl alcohol alkoxylate	No data available
alkyl alcohol alkoxylate	No data available
sodium cumenesulphonate	Not applicable

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
Citric acid	No data available
alkyl alcohol alkoxylate	No data available
alkyl alcohol alkoxylate	No data available
sodium cumenesulphonate	Not applicable

Aspiration hazard

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

Potential adverse health effects and symptoms

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Endocrine disrupting properties - Human data, if available:

11.2.2 Other information

No other relevant information available.

SECTION 12: Ecological information**12.1 Toxicity**

No data is available on the mixture .

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

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Citric acid	LC ₅₀	440	<i>Leuciscus idus</i>	Method not given	48
alkyl alcohol alkoxylate	LC ₅₀	> 100	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96
alkyl alcohol alkoxylate	LC ₅₀	> 1 - 10	<i>Leuciscus idus</i>	Method not given	96
sodium cumenesulphonate	LC ₅₀	> 1000	<i>Fish</i>	EPA-OPPTS 850.1075	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
Citric acid	EC ₅₀	1535	<i>Daphnia magna Straus</i>	Method not given	24
alkyl alcohol alkoxylate	EC ₅₀	> 100	<i>Daphnia magna Straus</i>	Method not given	48
alkyl alcohol alkoxylate	EC ₅₀	> 1 - 10	<i>Daphnia magna Straus</i>	Method not given	48
sodium cumenesulphonate	EC ₅₀	> 1000	<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)
Citric acid	LC ₅₀	425	<i>Scenedesmus quadricauda</i>	Method not given	168
alkyl alcohol alkoxylate	EC ₅₀	> 100	<i>Not specified</i>	Method not given	72
alkyl alcohol alkoxylate		No data available			
sodium cumenesulphonate	E _b C ₅₀	> 230	<i>Not specified</i>	EPA OPPTS 850.5400	96

Aquatic short-term toxicity - marine species

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

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
Citric acid	EC ₅₀	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
alkyl alcohol alkoxylate		No data available			
alkyl alcohol alkoxylate	EC ₁₀	> 1000	<i>Activated sludge</i>	DEV-L2	
sodium cumenesulphonate	E _r C ₅₀	> 1000	<i>Bacteria</i>	OECD 209	3 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

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

Suma Revoflow Pristine Pur-Eco A18

sodium cumenesulphonate		No data available				
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Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
Citric acid		No data available				
alkyl alcohol alkoxylate		No data available				
alkyl alcohol alkoxylate	NOEC	> 0.1 - 1	<i>Daphnia magna</i>	OECD 202	21 day(s)	
sodium cumenesulphonate		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
Citric acid		No data available				
alkyl alcohol alkoxylate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium cumenesulphonate		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
Citric acid		No data available				

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
Citric acid		No data available				

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
Citric acid	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
Citric acid	No data available			

Suma Revoflow Pristine Pur-Eco A18

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
Citric acid		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
Citric acid			97 % in 28 day(s)	Method not given OECD 301B	Readily biodegradable
alkyl alcohol alkoxylate	Activated sludge, aerobe	BOD removal	> 60% in 28 day(s)	OECD 301F	Readily biodegradable
alkyl alcohol alkoxylate	Activated sludge, aerobe	CO ₂ production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
sodium cumenesulphonate		CO ₂ production	103 - 109% 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
Citric acid					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
Citric acid					No data available

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

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

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
Citric acid	No data available				
alkyl alcohol alkoxylate	No data available				
alkyl alcohol alkoxylate	No data available				
sodium cumenesulphonate	No data available				

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
Citric acid	No data available				Potential for mobility in soil, soluble in water
alkyl alcohol alkoxylate	No data available				
alkyl alcohol alkoxylate	No data available				
sodium cumenesulphonate	No data available				

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Waste from residues / unused products:**

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

Empty packaging

Suma Revoflow Pristine Pur-Eco A18

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

SECTION 14: Transport information

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

- 14.1 UN number or ID number: Non-dangerous goods
 14.2 UN proper shipping name: Non-dangerous goods
 14.3 Transport hazard class(es): Non-dangerous goods
 14.4 Packing group: Non-dangerous goods
 14.5 Environmental hazards: Non-dangerous goods
 14.6 Special precautions for user: Non-dangerous goods
 14.7 Maritime transport in bulk according to IMO instruments: Non-dangerous goods

SECTION 15: Regulatory information

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

EU regulations:

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation
- substances identified as having endocrine disrupting properties in accordance with the criteria set out in Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods (IMDG) Code

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

Ingredients according to EC Detergents Regulation 648/2004

non-ionic surfactants	15 - 30 %
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.

Seveso - Classification: Not classified

15.2 Chemical safety assessment

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

SECTION 16: Other information

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

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This data sheet contains changes from the previous version in section(s):, 9, 15, 16, Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006

Classification procedure

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

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate

Suma Revoflow Pristine Pur-Eco A18

- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- H302 - Harmful if swallowed.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet