

Suma Revoflow Clear A11

Revision: 2025-01-28

Version: 05.0

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

1.1 Product identifier

Trade name: Suma Revoflow Clear A11

UFI: QDQ5-F0K6-D00A-APD2

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

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

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye irritation, Category 2 (H319)

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
alkyl alcohol alkoxyate	[4]	111905-53-4	[4]	Acute toxicity - Oral, Category 4 (H302) Eye irritation, Category 2 (H319) Chronic aquatic toxicity, Category 3 (H412)		10-20
Citric acid	201-069-1	-	[1]	Specific target organ toxicity - Single exposure, Category 3 (H335) Eye irritation, Category 2 (H319)		3-10
Alcohols, C12-15-branched and linear,	[4]	120313-48-6	[4]	Skin irritation, Category 2 (H315)		3-10

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ethoxylated propoxylated				Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 3 (H412)		
sodium cumenesulphonate	239-854-6	15763-76-5	01-211948941 1-37	Eye irritation, Category 2 (H319)		1-3

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.

Advice on general occupational hygiene:

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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. 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
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
Citric acid	-	-	-	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
Citric acid	No data available	-	No data available	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
Citric acid	No data available	-	No data available	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
Citric acid	-	-	-	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
Citric acid	-	-	-	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available
sodium cumenesulphonate	-	-	-	6.6

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)
alkyl alcohol alkoxyate	No data available	No data available	No data available	No data available
Citric acid	0.44	0.044	-	> 1000
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
alkyl alcohol alkoxyate	No data available	No data available	No data available	No data available
Citric acid	34.6	3.46	33.1	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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).

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 , Yellow

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Odour: Product specific**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)
alkyl alcohol alkoxylate	No data available		
Citric acid	No data available		
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	> 250	Method not given	
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:** ≈ 4 (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)
alkyl alcohol alkoxylate	No data available		
Citric acid	1630	Method not given	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Insoluble		
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)
alkyl alcohol alkoxylate	No data available		
Citric acid	No data available		
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	< 10	Method not given	20
sodium cumenesulphonate	No data available		

Method / remark**Relative density:** ≈ 1.04 (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**9.2.2 Other safety characteristics**

No other relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

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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

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

Skin irritation and corrosivity

Result: Not corrosive to skin **Method:** OECD 431 (EU B.40 bis), Episkin

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)
alkyl alcohol alkoxyolate	LD ₅₀	≥ 300-2000	Rat	Method not given		Not established
Citric acid	LD ₅₀	5400-11700	Rat	Method not given		Not established
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	LD ₅₀	> 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)
alkyl alcohol alkoxyolate		No data available				Not established
Citric acid	LD ₅₀	> 2000	Rat	Method not given		Not established
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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)
alkyl alcohol alkoxyolate		No data available			
Citric acid		No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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)
alkyl alcohol alkoxyolate	Not established	Not established	Not established	Not established
Citric acid	Not established	Not established	Not established	Not established
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	Mild irritant	Rabbit	OECD 404 (EU B.4)	
Citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Irritant	Rabbit	Draize test	
sodium cumenesulphonate	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	Irritant	Rabbit	OECD 405 (EU B.5)	
Citric acid	Severe damage Irritant	Rabbit	OECD 405 (EU B.5)	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Not corrosive or irritant	Rabbit	Draize test	
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
alkyl alcohol alkoxylate	No data available			
Citric acid	No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available			
sodium cumenesulphonate	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	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	No data available			
Citric acid	No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
alkyl alcohol alkoxylate	No data available		No data available	
Citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	No data available
Citric acid	No evidence for carcinogenicity, negative test results
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate			No data available				
Citric acid			No data available				No evidence for reproductive toxicity
Alcohols, C12-15-branched and			No data available				

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linear, ethoxylated propoxylated							
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		No known significant effects or critical hazards

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				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
alkyl alcohol alkoxylate		No data available				
Citric acid		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
alkyl alcohol alkoxylate		No data available				
Citric acid		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
alkyl alcohol alkoxylate			No data available					
Citric acid			No data available					
Alcohols, C12-15-branched and linear, ethoxylated propoxylated			No data available					
sodium cumenesulphonate			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol alkoxylate	No data available
Citric acid	No data available
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available
sodium cumenesulphonate	Not applicable

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
alkyl alcohol alkoxylate	No data available
Citric acid	No data available
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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

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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)
alkyl alcohol alkoxylate	LC ₅₀	> 1 - 10	<i>Leuciscus idus</i>	Method not given	96
Citric acid	LC ₅₀	440	<i>Leuciscus idus</i>	Method not given	48
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	LC ₅₀	> 1-10	<i>Fish</i>	OECD 203 (EU C.1)	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)
alkyl alcohol alkoxylate	EC ₅₀	> 1 - 10	<i>Daphnia magna Straus</i>	Method not given	48
Citric acid	EC ₅₀	1535	<i>Daphnia magna Straus</i>	Method not given	24
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	EC ₅₀	≤ 1	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	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)
alkyl alcohol alkoxylate		No data available			
Citric acid	LC ₅₀	425	<i>Scenedesmus quadricauda</i>	Method not given	168
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	EC ₅₀	≤ 1	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	RM000517/ RM002677 BASF EU RSDS 2021
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)
alkyl alcohol alkoxylate		No data available			
Citric acid		No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
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)
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available			
sodium cumenesulphonate	E _r C ₅₀	> 1000	<i>Bacteria</i>	OECD 209	3 hour(s)

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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				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available				
sodium cumenesulphonate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
alkyl alcohol alkoxylate	NOEC	> 0.1 - 1	<i>Daphnia magna</i>	OECD 202	21 day(s)	
Citric acid		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	NOEC	> 0.1-1	<i>Daphnia magna</i>	Method not given	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
alkyl alcohol alkoxylate		No data available				
Citric acid		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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

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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			

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
alkyl alcohol alkoxylate	Activated sludge, aerobe	CO ₂ production	> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
Citric acid			97 % in 28 day(s)	Method not given OECD 301B	Readily biodegradable
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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 potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
alkyl alcohol alkoxylate	No data available			
Citric acid	-1.72		No bioaccumulation expected	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available			
sodium cumenesulphonate	-1.1	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
alkyl alcohol alkoxylate	No data available				
Citric acid	No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
alkyl alcohol alkoxylate	No data available				
Citric acid	No data available				Potential for mobility in soil, soluble in water
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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.

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12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects

No other adverse effects known.

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

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

European Waste Catalogue:

20 01 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 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

5 - 15 %

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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Suma Revoflow Clear A11**Reason for revision:**

This data sheet contains changes from the previous version in section(s): 2, 3, 4, 6, 7, 8, 9, 13, 16

Classification procedure

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

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet