



A Solenis Company

Suma Revoflow Max P1

Revision: 2024-02-17

Version: 07.2

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

1.1 Product identifier

Trade name: Suma Revoflow Max P1

UFI: 25R5-00SS-400S-9RMN

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

Product use: Dish wash product.
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_1
AISE_SWED_PW_1_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssebroeksedijk 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

EUH031
Skin corrosion, Category 1A (H314)
Serious eye damage, Category 1 (H318)
Chronic aquatic toxicity, Category 3 (H412)

2.2 Label elements



Signal word: Danger.

Contains sodium hydroxide (Sodium Hydroxide)

Hazard statements:

H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.
EUH031 - Contact with acids liberates toxic gas.

Precautionary statements:

P260 - Do not breathe dust.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Suma Revoflow Max P1

Continue rinsing.
P310 - Immediately call a POISON CENTRE, doctor or physician.

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
sodium hydroxide	215-185-5	1310-73-2	01-211945789 2-27	Skin corrosion, Category 1A (H314) Corrosive to metals, Category 1 (H290)		50-75
sodium dichloroisocyanurate, dihydrate	220-767-7	-	[6]	EUH031 Acute toxicity - Oral, Category 4 (H302) Specific target organ toxicity - Single exposure, Category 3 (H335) Eye irritation, Category 2 (H319) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410)		1-3
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	[4]	120313-48-6	[4]	Skin irritation, Category 2 (H315) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 3 (H412)		0.1-1

Specific concentration limits

sodium hydroxide:

- Serious eye damage, Category 1 (H318) >= 2% > Eye irritation, Category 2 (H319) >= 0.5%
- Skin corrosion, Category 1A (H314) >= 5% > Skin corrosion, Category 1B (H314) >= 2% > Skin irritation, Category 2 (H315) >= 0.5%

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

ATE, if available, are listed in section 11.

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

[6] Exempted: biocidal active. See Article 15(2) 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****General Information:**

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Remove person to fresh air and keep comfortable for breathing. Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

Eye contact:

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

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

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:**

May cause bronchospasm in chlorine sensitive individuals.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

Suma Revoflow Max P1

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

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation. Collect mechanically. 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 face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe dust. 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:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
sodium hydroxide		2 mg/m ³

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
sodium hydroxide	-	-	-	-
sodium dichloroisocyanurate, dihydrate	-	-	-	1.15
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available

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)

Suma Revoflow Max P1

sodium hydroxide	2 %	-	-	-
sodium dichloroisocyanurate, dihydrate	-	-	-	2.3
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available

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)
sodium hydroxide	2 %	-	-	-
sodium dichloroisocyanurate, dihydrate	-	-	-	1.15
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available

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
sodium hydroxide	-	-	1	-
sodium dichloroisocyanurate, dihydrate	-	-	-	8.11
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available

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
sodium hydroxide	-	-	1	-
sodium dichloroisocyanurate, dihydrate	-	-	-	1.99
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
sodium hydroxide	-	-	-	-
sodium dichloroisocyanurate, dihydrate	0.00017	1.52	0.0017	0.59
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
sodium hydroxide	-	-	-	-
sodium dichloroisocyanurate, dihydrate	7.56	-	0.756	-
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available	No data available	No data available	No data available

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:

- Appropriate engineering controls:** If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.
- 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_1	PW	PROC 8b	60	ERC8b

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 16321 / EN 166).

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may

Suma Revoflow Max P1

be chosen.
Body protection: Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN ISO 13982-1).
Respiratory protection: If exposure to dust cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 0.5

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

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

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Automatic application in a dedicated closed system	AISE_SWED_PW_1_1	PW	PROC 1	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: Solid

Colour: Clear , White

Odour: Chlorine

Odour threshold: Not applicable

Melting point/freezing point (°C): Not determined

Not relevant to classification of this product

Initial boiling point and boiling range (°C): Not determined

Not applicable to solids or gases

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium hydroxide	> 990	Method not given	
sodium dichloroisocyanurate, dihydrate	Product decomposes before boiling	Read across	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	> 250	Method not given	

Method / remark

Flammability (solid, gas): Not determined

Flammability (liquid): Not applicable.

Flash point (°C): Not applicable.

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: Not applicable

Dilution pH: > 11 (0.5 %)

ISO 4316

Kinematic viscosity: Not applicable to solids or gases

Not applicable to solids or gases

Solubility in / Miscibility with water: Soluble

Substance data, solubility in water

Ingredient(s)	Value	Method	Temperature
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Suma Revoflow Max P1

	(g/l)		(°C)
sodium hydroxide	1000	Method not given	20
sodium dichloroisocyanurate, dihydrate	248.2	Read across	25
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Insoluble		

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

Vapour pressure: Not determined

Method / remark

See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium hydroxide	< 1330	Method not given	20
sodium dichloroisocyanurate, dihydrate	0.006	Read across	20
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	< 10	Method not given	20

Relative density: ≈ 1.10 (20 °C)

Relative vapour density: No data available.

Particle characteristics: Not determined.

Method / remark

OECD 109 (EU A.3)

Not applicable to solids

Not relevant to classification of this product.

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 determined

Not applicable to solids or gases

9.2.2 Other safety characteristics

Alkali reserve: ≈ 50.7 (g NaOH / 100g; pH=10)

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 acids. Reacts with acids releasing toxic chlorine gas.

10.6 Hazardous decomposition products

Chlorine.

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)
sodium hydroxide		No data available				Not established

Suma Revoflow Max P1

sodium dichloroisocyanurate, dihydrate	LD ₅₀	1671	Rat	EPA OPP 81-1		1671
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	LD ₅₀	> 2000	Rat	Method not given		Not established

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
sodium hydroxide	LD ₅₀	1350	Rabbit	Method not given		1350
sodium dichloroisocyanurate, dihydrate	LD ₅₀	> 5000	Rat	EPA OPP 81-2		Not established
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available				Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate	LC ₅₀	> 0.27	Rat	OECD 403 (EU B.2)	4
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
sodium hydroxide	Not established	Not established	Not established	Not established
sodium dichloroisocyanurate, dihydrate	Not established	Not established	Not established	Not established
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Not established	Not established	Not established	Not established

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
sodium dichloroisocyanurate, dihydrate	Not irritant		Method not given	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Irritant	Rabbit	Draize test	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
sodium dichloroisocyanurate, dihydrate	Irritant		Method not given	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	Not corrosive or irritant	Rabbit	Draize test	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
sodium dichloroisocyanurate, dihydrate	Irritating to respiratory tract			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hydroxide	Not sensitising		Human repeated patch test	
sodium dichloroisocyanurate, dihydrate	Not sensitising	Guinea pig	OECD 429 (EU B.42)	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	No data available			
sodium dichloroisocyanurate, dihydrate	No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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)
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD

Suma Revoflow Max P1

		hepatocytes OECD 473		475 (EU B.11)
sodium dichloroisocyanurate, dihydrate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	OECD 475 (EU B.11)
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
sodium dichloroisocyanurate, dihydrate	No evidence for carcinogenicity, negative test results
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
sodium dichloroisocyanurate, dihydrate	NOAEL	Developmental toxicity	190	Rat	OECD 416, (EU B.35), oral		No known significant effects or critical hazards
Alcohols, C12-15-branched and linear, ethoxylated propoxylated			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
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	115	Rat	Method not given	28	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	> 31	Rat	Method not given	28	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
sodium hydroxide			No data available					
sodium dichloroisocyanurate, dihydrate	Oral	NOAEL	1523	Mouse	OECD 453 (EU B.33)	24 month(s)		
Alcohols, C12-15-branched and linear, ethoxylated propoxylated			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
sodium dichloroisocyanurate, dihydrate	Respiratory tract
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available

Suma Revoflow Max P1

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STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
sodium dichloroisocyanurate, dihydrate	Not applicable
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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.

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)
sodium hydroxide	LC ₅₀	35	<i>Various species</i>	Method not given	96
sodium dichloroisocyanurate, dihydrate	LC ₅₀	0.23	<i>Lepomis macrochirus</i>	Method not given	96
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	LC ₅₀	> 1-10	<i>Fish</i>	OECD 203 (EU C.1)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48
sodium dichloroisocyanurate, dihydrate	EC ₅₀	0.21	<i>Daphnia magna Straus</i>	ASTM draft method	48
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	EC ₅₀	≤ 1	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25
sodium dichloroisocyanurate, dihydrate	EC ₅₀	< 0.5	<i>Scenedesmus obliquus</i>	Non guideline test	3
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

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate		No data available			
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available			

Suma Revoflow Max P1

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate	EC ₅₀	51		OECD 209	3 hour(s)
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Oncorhynchus mykiss</i>	OECD 215	28 day(s)	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	160	<i>Daphnia magna</i>	OECD 211	21 day(s)	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated		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
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Eisenia fetida</i>	OECD 207	14	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data available				

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data available				

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data				

Suma Revoflow Max P1

		available				
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Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		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
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	
sodium dichloroisocyanurate, dihydrate	No data available			

Abiotic degradation - hydrolysis, if available:

Ingredient(s)	Half-life time in fresh water	Method	Evaluation	Remark
sodium hydroxide	No data available			
sodium dichloroisocyanurate, dihydrate	No data available			

Abiotic degradation - other processes, if available:

Ingredient(s)	Type	Half-life time	Method	Evaluation	Remark
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate		No data available			

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					Not applicable (inorganic substance)
sodium dichloroisocyanurate, dihydrate		Oxygen depletion	2 % in 28d day(s)	OECD 301D	Not 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

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					No data available
sodium dichloroisocyanurate, dihydrate					No data available

Degradation in relevant environmental compartments, if available:

Ingredient(s)	Medium & Type	Analytical method	DT ₅₀	Method	Evaluation
sodium hydroxide					No data available
sodium dichloroisocyanurate, dihydrate					No data available

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
sodium dichloroisocyanurate, dihydrate	-0.0056	Method not given	No bioaccumulation expected	
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
sodium dichloroisocyanurate, dihydrate	No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	No data available				

Suma Revoflow Max P1

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
sodium hydroxide	No data available				Mobile in soil
sodium dichloroisocyanurate, dihydrate	No data available				
Alcohols, C12-15-branched and linear, ethoxylated propoxylated	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.

European Waste Catalogue:

20 01 15* - alkalines.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

SECTION 14: Transport information**Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number or ID number:** 1823**14.2 UN proper shipping name:**

Sodium hydroxide, solid, mixture

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: II**14.5 Environmental hazards:**

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.**14.7 Maritime transport in bulk according to IMO instruments:** The product is not transported in bulk tankers.**Other relevant information:****ADR**

Classification code: C6

Tunnel restriction code: (E)

Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Suma Revoflow Max P1

National regulations :

- Control of Poisons and Explosives Precursors Regulations 2015
- Regulation (EC) 1907/2006 - REACH (UK amended)
- Regulation (EC) 1272/2008 - CLP (UK amended)
- Regulation (EC) 648/2004 - Detergents regulation (UK amended)
- Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
- 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 Detergents Regulation

phosphates	15 - 30 %
polycarboxylates, chlorine-based bleaching agents, non-ionic surfactants	< 5 %

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Comah - 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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Version: 07.2

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Reason for revision:

This data sheet contains changes from the previous version in section(s):, 3, 4, 8, 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
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- H412 - Harmful to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.

End of Safety Data Sheet