

## Suma Revoflow Clean P5

Revision: 2012-10-18

Version 04

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

#### 1.1 Product identifier

Trade name: Suma Revoflow Clean P5

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

##### Identified uses:

For professional use only

AISE-P202 - Dishwash product. Automatic process

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

#### 1.3 Details of the supplier of the safety data sheet

Diversey local operating company

#### Contact details

Diversey local operating company

#### 1.4 Emergency telephone number

Diversey local operating company

*This International SDS is for information only. It does not meet all applicable regulatory requirements and does not replace the relevant statutory data sheet for your country*

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

The product has been classified and labelled in accordance with Directive 1999/45/EC and corresponding national legislation.

##### Indication of danger

C - Corrosive

##### Risk phrases:

R31 - Contact with acids liberates toxic gas.

R35 - Causes severe burns.

R37 - Irritating to respiratory system.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 2.2 Label elements



C - Corrosive

Contains sodium hydroxide, disodium metasilicate

##### Risk phrases:

R31 - Contact with acids liberates toxic gas.

R35 - Causes severe burns.

R37 - Irritating to respiratory system.

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Safety phrases:

S 8 - Keep container dry.

S22 - Do not breathe dust.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28a - After contact with skin, wash immediately with plenty of water.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61b - Avoid release to the environment. Refer to safety data sheet.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

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**2.3 Other hazards**

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

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

Ingredient(s)	EC number	CAS number	REACH number	Classification	Classification (EC) 1272/2008	Notes	Weight percent
disodium metasilicate	229-912-9	6834-92-0	No data available	C; R34-37	Skin Corr. 1B (H314) Met. Corr. 1 (H290) STOT SE 3 (H335)		30-50
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	C; R35	Skin Corr. 1A (H314)		3-10
sodium dichloroisocyanurate, dihydrate	220-767-7	51580-86-0	01-2119489371-33	Xn,N; R22-31-36/37-50/53	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Acute Tox. 4 (H302) (EUH031) Eye Irrit. 2 (H319) STOT SE 3 (H335)		1-3
alkyl alcohol alkoxylate	Polymer*	111905-54-5	[4]	Xi,N; R38-50	Aquatic Acute 1 (H400) Skin Irrit. 2 (H315)		0.1-1

\* Polymer.

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

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

[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.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

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

**SECTION 4: First aid measures****4.1 Description of first aid measures****General Information****Inhalation**

If unconscious place in recovery position and seek medical advice.

**Skin contact**

Remove from source of exposure. Get medical attention immediately.

**Eye contact**

Immediately wash off with plenty of water. Take off all contaminated clothing immediately. Get medical attention.

**Ingestion**

Wash off immediately with plenty of water. Get medical attention immediately.

**Self-protection of first aider:**

Remove material from mouth. Immediately drink 1-2 glasses of water or milk. Get medical attention immediately.

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. Severe irritant, may cause respiratory tract irritation.

**Skin contact**

Causes severe burns.

**Eye contact**

Causes severe or permanent damage.

**Ingestion**

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

**Sensitisation**

No known effects.

**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**

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

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**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**

Collect mechanically. Ensure adequate ventilation.

**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****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. Avoid dust formation. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

**Prevention of fire and explosion**

No special precautions required.

**7.2 Conditions for safe storage, including any incompatibilities****Requirements for storage rooms / facilities:**

In accordance with local and national regulations.

**Combined storage in storage rooms / facilities:**

In accordance with local and national regulations. Store away from acids.

**Basic storage conditions**

Store in original container. Keep container tightly closed. For conditions to avoid see subsection 10.4.

**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)	EU - Long term value(s)	EU - Short term value(s)	UK - Long term value(s)	UK - Short term value(s)
sodium hydroxide				2 mg/m <sup>3</sup>

Biological limit values, if available:

Recommended monitoring procedures, if available:

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

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

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium metasilicate	No data available	No data available	No data available	0.74
sodium hydroxide	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.15
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
disodium metasilicate	No data available	No data available	No data available	1.49
sodium hydroxide	2 %	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	2.3
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
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disodium metasilicate	No data available	No data available	No data available	0.74
sodium hydroxide	2 %	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.15
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium metasilicate	No data available	No data available	No data available	6.22
sodium hydroxide	No data available	No data available	1	No data available
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	8.11
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium metasilicate	No data available	No data available	No data available	1.55
sodium hydroxide	No data available	No data available	1	No data available
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.99
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

**Environmental exposure**

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
disodium metasilicate	7.5	1	7.5	1000
sodium hydroxide	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	0.00017	1.52	0.0017	0.59
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
disodium metasilicate	No data available	No data available	No data available	No data available
sodium hydroxide	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	7.56	No data available	0.756	No data available
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available

**8.2 Exposure controls****General health and safety measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Take off immediately all contaminated clothing. Wash hands before breaks and at the end of workday. Do not breathe dust. Avoid contact with skin and eyes.

*The following information applies for the uses indicated in subsection 1.2.*

*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:**

Use only in well ventilated areas. 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.

**Personal protective equipment****Eye / face protection:**

Safety glasses or goggles (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:  $\geq$  480 min

Material thickness:  $\geq$  0.7 mm

Suggested gloves for protection against splashes:

Material: nitrile rubber

Penetration time:  $\geq$  30 min

Material thickness:  $\geq$  0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

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<b>Body protection:</b>	Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.
<b>Respiratory protection:</b>	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.
<b>Environmental exposure controls:</b>	Should not reach sewage water or drainage ditch undiluted.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 0.3

<b>Appropriate engineering controls:</b>	No special requirements under normal use conditions.
<b>Appropriate organisational controls:</b>	No special requirements under normal use conditions.

**Personal protective equipment .**

<b>Eye / face protection:</b>	No special requirements under normal use conditions.
<b>Hand protection:</b>	No special requirements under normal use conditions.
<b>Body protection:</b>	No special requirements under normal use conditions.
<b>Respiratory protection:</b>	No special requirements under normal use conditions.

<b>Environmental exposure controls:</b>	No special requirements under normal use conditions.
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## 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:** White  
**Odour:** Chlorine  
**Odour threshold:** Not applicable.  
**pH:**  
**Dilution pH:**  $\geq 12$  (1%)  
**Melting point/freezing point (°C):** Not determined  
**Initial boiling point and boiling range (°C):** Not determined  
**Flash point (°C):** Not applicable.  
**Sustained combustion:** Not determined  
**Evaporation rate:** Not determined  
**Flammability (solid, gas):** Not determined  
**Upper/lower flammability limit (%):** Not determined

**Vapour pressure:** Not determined

**Vapour density:** Not determined

**Relative density:** 1.00 g/cm<sup>3</sup> (20°C)

**Solubility in / Miscibility with Water:** Soluble

**Autoignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Viscosity:** Not determined

**Explosive properties:** Not explosive.

**Oxidising properties:** Not oxidising.

### 9.2 Other information

**Surface tension (N/m):** Not determined

**Corrosion to metals**  
**(according to IMDG/ADR regulation):** Not determined

## SECTION 10: Stability and reactivity

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**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**

Store under dry conditions.

**10.5 Incompatible materials**

Reacts with acids releasing toxic chlorine gas.

**10.6 Hazardous decomposition products**

Chlorine.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Mixtures**

No test data is available on the mixture

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)
disodium metasilicate	LD <sub>50</sub>	770 - 820	Mouse	Method not given	
sodium hydroxide	LD <sub>50</sub>	1350	Rat	Method not given	
sodium dichloroisocyanurate, dihydrate	LD <sub>50</sub>	1823		EPA OPP 81-1	
alkyl alcohol alkoxylate		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
sodium hydroxide	LD <sub>50</sub>	1350	Rabbit	Method not given	
sodium dichloroisocyanurate, dihydrate	LD <sub>50</sub>	> 5000		EPA OPP 81-2	
alkyl alcohol alkoxylate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
sodium hydroxide	LC <sub>50</sub>	4800	Mouse	Method not given	1
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	> 0.27		OECD 403 (EU B.2)	4
alkyl alcohol alkoxylate		No data available			

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	
sodium dichloroisocyanurate, dihydrate	Corrosive		EPA OPP 81-5	
alkyl alcohol alkoxylate	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	
sodium dichloroisocyanurate, dihydrate	Corrosive		EPA OPP 81-4	
alkyl alcohol alkoxylate	No data available			

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium hydroxide	No data available			
sodium dichloroisocyanurate, dihydrate	Irritating to respiratory tract			
alkyl alcohol alkoxylate	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
disodium metasilicate	No data available			
sodium hydroxide	Not sensitising		Human repeated patch test	
sodium dichloroisocyanurate, dihydrate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol alkoxylate	No data available			

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium hydroxide	No data available			
sodium dichloroisocyanurate, dihydrate	No data available			
alkyl alcohol alkoxylate	No data available			

## Repeated dose toxicity

## Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
disodium metasilicate		No data available				
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	115	Rat	Method not given	28	
alkyl alcohol alkoxylate		No data available				

## Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
disodium metasilicate		No data available				
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate		No data available				
alkyl alcohol alkoxylate		No data available				

## Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
disodium metasilicate		No data available				
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	> 31	Rat	Method not given	28	
alkyl alcohol alkoxylate		No data available				

## Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
disodium metasilicate			No data available					
sodium hydroxide			No data available					
sodium dichloroisocyanurate, dihydrate	Oral	NOAEL	1523	Rat	OECD 453 (EU B.33)			
alkyl alcohol alkoxylate			No data available					

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**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available

## Carcinogenicity

Ingredient(s)	Effect
disodium metasilicate	No data available
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence
sodium dichloroisocyanurate, dihydrate	No evidence for carcinogenicity, negative test results
alkyl alcohol alkoxylate	No data available

## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
disodium metasilicate	No data available		No data available	
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 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)
alkyl alcohol alkoxylate	No data available		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
disodium metasilicate			No data available				
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		
alkyl alcohol alkoxylate			No data available				

**Potential adverse health effects and symptoms**

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

**SECTION 12: Ecological information****12.1 Toxicity**

Mixtures

No test 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)
disodium metasilicate	LC <sub>50</sub>	210	Brachydanio rerio	Method not given	96
sodium hydroxide	LC <sub>50</sub>	35	Various species	Method not given	96
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	0.23	Lepomis macrochirus		96
alkyl alcohol alkoxylate		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC <sub>50</sub>	1700	Daphnia	Method not given	48
sodium hydroxide	EC <sub>50</sub>	40.4	Ceriodaphnia sp.	Method not given	48
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	0.17	Daphnia magna Straus	ASTM draft method	48
alkyl alcohol alkoxylate		No data available			



## Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC <sub>50</sub>	207	Chlorella pyrenoidosa	Method not given	72
sodium hydroxide	EC <sub>50</sub>	22	Photobacterium phosphoreum	Method not given	0.25
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	< 0.5	Scenedesmus obliquus	Non guideline test	3
alkyl alcohol alkoxylate		No data available			

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
disodium metasilicate		No data available			
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate		No data available			
alkyl alcohol alkoxylate		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
disodium metasilicate	EC <sub>50</sub>	> 100	Activated sludge	Method not given	3 hour(s)
sodium hydroxide		No data available			
sodium dichloroisocyanurate, dihydrate		No data available			
alkyl alcohol alkoxylate		No data available			

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium metasilicate		No data available				
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	1000	Oncorhynchus mykiss	OECD 215	28 day(s)	
alkyl alcohol alkoxylate		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium metasilicate		No data available				
sodium hydroxide		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	160	Daphnia magna	OECD 211	21 day(s)	
alkyl alcohol alkoxylate		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if 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 dichloroisocyanurate, dihydrate	NOEC	1000	Eisenia fetida		14	

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

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Terrestrial toxicity - soil bacteria, if 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	

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

### Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
disodium metasilicate					Not applicable (inorganic substance)
sodium hydroxide					Not applicable (inorganic substance)
sodium dichloroisocyanurate, dihydrate		Oxygen depletion	2% in 28d day(s)	OECD 301D	Not readily biodegradable.
alkyl alcohol alkoxylate					No data available

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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.

## 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
disodium metasilicate	No data available			
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
sodium dichloroisocyanurate, dihydrate	-0.0056			
alkyl alcohol alkoxylate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
disodium metasilicate	No data available				
sodium hydroxide	No data available				
sodium dichloroisocyanurate, dihydrate	No data available				
alkyl alcohol alkoxylate	No data available				

## 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
disodium metasilicate	No data available				
sodium hydroxide	No data available				Mobile in soil
sodium dichloroisocyanurate, dihydrate	No data available				
alkyl alcohol alkoxylate	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 Other adverse effects

No other adverse effects known.

# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

**Waste from residues / unused products** Dispose of in compliance with all Federal, state, provincial, and local laws and regulations.  
**European Waste Catalogue:** 20 01 15\* - alkalines.

Empty packaging  
Recommendation:

Dispose of observing national or local regulations.

## SECTION 14: Transport information



ADR, RID, ADN, IMO/IMDG, ICAO/IATA

14.1 UN number: 1823

14.2 UN proper shipping name:

Sodium hydroxide, solid, mixture

14.3 Transport hazard class(es):

Class:8

Label(s):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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: 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

Ingredients according to EC Detergents Regulation 648/2004

phosphates

>=30%

chlorine-based bleaching agents, non-ionic surfactants, polycarboxylates

< 5%

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*

MSDS code: MSDS6004

Version 04

Revision: 2012-10-18

Reason for revision:

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

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

- R34 - Causes burns.
- R37 - Irritating to respiratory system.
- R35 - Causes severe burns.
- R31 - Contact with acids liberates toxic gas.
- R22 - Harmful if swallowed.
- R50 - Very toxic to aquatic organisms.
- R38 - Irritating to skin.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R36/37 - Irritating to eyes and respiratory system.
- R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Suma Revoflow Clean P5**

- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- 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.
- EUH031 - Contact with acids liberates toxic gas.

**Abbreviations and acronyms:**

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

**End of Safety Data Sheet**