

**Suma DIFY MA1**

Revision: 2015-06-04

Version: 01.0

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

**1.1 Product identifier**

**Trade name:** Suma DIFY MA1

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

**Identified uses:**

For professional use only.

AISE-P201 - Dishwash product. Manual process

AISE-P203 - Dishwash product. Semi-automatic process

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

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

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

**Contact details**

Diversey Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: MSDSinfoUK@sealedair.com

**1.4 Emergency telephone number**

For medical or environmental emergency only:

call 0800 052 0185

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

The product has been classified and labelled in accordance with Regulation (EC) No 1272/2008.

EUH031

Skin Corr. 1B (H314)

Aquatic Chronic 2 (H411)

**Classification 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.

R34 - Causes burns.

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

**2.2 Label elements**



**Signal word:** Danger.

Contains disodium metasilicate (Sodium Metasilicate), disodium metasilicate pentahydrate (Sodium Metasilicate).

**Hazard statements:**

EUH031 - Contact with acids liberates toxic gas.

H314 - Causes severe skin burns and eye damage.

H411 - Toxic to aquatic life with long lasting effects.

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**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. Continue rinsing.

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

**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 (1999/45/EC)	Notes	Weight percent
disodium metasilicate	229-912-9	6834-92-0	01-2119449811-37	Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290)	C;R34 Xi;R37		20-30
disodium metasilicate pentahydrate	600-279-4	10213-79-3	01-2119449811-37	Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290)	C;R34 Xi;R37		20-30
alkyl alcohol alkoxylate	Polymer*	-	[4]	Aquatic Chronic 2 (H411)	-		3-10
sodium dichloroisocyanurate, dihydrate	220-767-7	51580-86-0	01-2119489371-33	EUH031 Acute Tox. 4 (H302) STOT SE 3 (H335) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn;R22 R31 Xi;R36/37 N;R50/53		1-3
silica, amorphous	231-545-4	112926-00-8	01-2119379499-16	Not classified	-		1-3

\* 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:**

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident. If breathing is irregular or stopped, administer artificial respiration.

**Inhalation**

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 re-use. Immediately call a POISON CENTRE, doctor or physician.

**Eye contact:**

Immediately rinse eyes cautiously with lukewarm water for several 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. 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**

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.

**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****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 Sealed Air. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe dust. Use only with adequate ventilation.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local and national regulations. Keep only in original container. Store in a closed container.

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)
silica, amorphous	6 mg/m <sup>3</sup> inhalable dust 2.4 mg/m <sup>3</sup> respirable dust	18 mg/m <sup>3</sup> inhalable dust 7.2 mg/m <sup>3</sup> respirable dust

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	-	-	-	0.74
disodium metasilicate pentahydrate	-	-	-	0.74
alkyl alcohol alkoxyolate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	-	-	-	1.15
silica, amorphous	-	-	-	-

DNEL dermal exposure - Worker

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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	1.49
disodium metasilicate pentahydrate	No data available	-	No data available	1.49
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	No data available	-	No data available	2.3
silica, amorphous	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)
disodium metasilicate	No data available	-	No data available	0.74
disodium metasilicate pentahydrate	No data available	-	No data available	0.74
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	No data available	-	No data available	1.15
silica, amorphous	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	-	-	-	6.22
disodium metasilicate pentahydrate	-	-	-	6.22
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	-	-	-	8.11
silica, amorphous	-	-	4	-

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	-	-	-	1.55
disodium metasilicate pentahydrate	-	-	-	1.55
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	-	-	-	1.99
silica, amorphous	-	-	-	-

## 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
disodium metasilicate pentahydrate	7.5	1	7.5	1000
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	0.00017	1.52	0.0017	0.59
silica, amorphous	-	-	-	-

## 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	-	-	-	-
disodium metasilicate pentahydrate	-	-	-	-
alkyl alcohol alkoxylate	No data available	No data available	No data available	No data available
sodium dichloroisocyanurate, dihydrate	7.56	-	0.756	-
silica, amorphous	-	-	-	-

## 8.2 Exposure controls

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:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

## 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.

## 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

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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.

**Body protection:**

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.

**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 (%):** 0.7

**Appropriate engineering controls:**

No special requirements under normal use conditions.

**Appropriate organisational controls:**

No special requirements under normal use conditions.

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

Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.

**Hand protection:**

Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

**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

**Appearance:** Tablets

**Colour:** White

**Odour:** Chlorine

**Odour threshold:** Not applicable

**pH:**

**Dilution pH:**  $> 12$  (1%)

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

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

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
disodium metasilicate	No data available		
disodium metasilicate pentahydrate	No data available		
alkyl alcohol alkoxylate	No data available		
sodium dichloroisocyanurate, dihydrate	Product decomposes before boiling	Read across	
silica, amorphous	No data available		

**Method / remark**

**Flash point (°C):** Not applicable.

**Sustained combustion:** Not determined

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Not determined

**Upper/lower flammability limit (%):** Not determined

Substance data, flammability or explosive limits, if available:

**Method / remark**

**Vapour pressure:** Not determined

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
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disodium metasilicate	No data available		
disodium metasilicate pentahydrate	No data available		
alkyl alcohol alkoxylate	No data available		
sodium dichloroisocyanurate, dihydrate	0.006	Read across	20
silica, amorphous	No data available		

## Method / remark

**Vapour density:** Not determined**Relative density:** 0.98 g/cm<sup>3</sup> (20 °C)**Solubility in / Miscibility with Water:** Soluble

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
disodium metasilicate	350	Method not given	20
disodium metasilicate pentahydrate	175	Method not given	20
alkyl alcohol alkoxylate	< 0.02	Method not given	
sodium dichloroisocyanurate, dihydrate	248.2	Read across	25
silica, amorphous	Insoluble		

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

## Method / remark

**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:** Not applicable to solids or gases

Substance data, dissociation constant, if available:

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

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

Stable under normal storage and use conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions known under normal storage and use conditions.

**10.4 Conditions to avoid**

Keep container in a well-ventilated place. Keep in a cool place. None known under normal storage and use conditions.

**10.5 Incompatible materials**

Reacts with acids releasing toxic chlorine gas. Keep away from acids.

**10.6 Hazardous decomposition products**

Chlorine.

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

Mixture data:

**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): &gt;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)
disodium metasilicate	LD <sub>50</sub>	770 - 820	Mouse	Method not given	
disodium metasilicate pentahydrate	LD <sub>50</sub>	1152 - 1349	Mouse	Method not given	-
alkyl alcohol alkoxylate	LD <sub>50</sub>	> 2000	Rat	Read across	

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sodium dichloroisocyanurate, dihydrate	LD <sub>50</sub>	1671	Rat	EPA OPP 81-1	-
silica, amorphous	LD <sub>50</sub>	> 3100	Rat	Method not given	

## Acute dermal toxicity

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

## Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
disodium metasilicate pentahydrate	LC <sub>50</sub>	> 2.06 (mist)	Rat	Method not given	4
alkyl alcohol alkoxylate		No data available			
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	> 0.27	Rat	OECD 403 (EU B.2)	4
silica, amorphous		No data available			

## Irritation and corrosivity

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
disodium metasilicate pentahydrate	Corrosive	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol alkoxylate	Not irritant	Rabbit	Draize test	
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-5	
silica, amorphous	Not irritant		Method not given	

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
disodium metasilicate pentahydrate	Corrosive	Rabbit	Method not given	
alkyl alcohol alkoxylate	Not corrosive or irritant	Rabbit		
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-4	
silica, amorphous	Not corrosive or irritant		Method not given	

## Respiratory tract irritation and corrosivity

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

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
disodium metasilicate	No data available			
disodium metasilicate pentahydrate	Not sensitising		Method not given	-
alkyl alcohol alkoxylate	No data available			
sodium dichloroisocyanurate, dihydrate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	-
silica, amorphous	Not sensitising			

## Sensitisation by inhalation

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

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## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
disodium metasilicate	No data available		No data available	
disodium metasilicate pentahydrate	No data available		No data available	
alkyl alcohol alkoxylate	No data available		No data available	
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)
silica, amorphous	No evidence of genotoxicity, negative test results		No evidence of genotoxicity, negative test results	

## Carcinogenicity

Ingredient(s)	Effect
disodium metasilicate	No data available
disodium metasilicate pentahydrate	No data available
alkyl alcohol alkoxylate	No data available
sodium dichloroisocyanurate, dihydrate	No evidence for carcinogenicity, negative test results
silica, amorphous	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
disodium metasilicate			No data available				
disodium metasilicate pentahydrate			No data available				
alkyl alcohol alkoxylate			No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	Developmental toxicity	190	Rat	OECD 416, (EU B.35), oral		
silica, amorphous			No data available				No evidence for reproductive toxicity

## 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	NOAEL	> 227 - 237	Rat	Method not given		
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	115	Rat	Method not given	28	
silica, amorphous	NOAEL	> 4000	Rat	Method not given		

## 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				
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available				
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		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				
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available				
sodium dichloroisocyanurate, dihydrate	NOAEL	> 31	Rat	Method not given	28	
silica, amorphous		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					



disodium metasilicate pentahydrate			No data available					
alkyl alcohol alkoxylate			No data available					
sodium dichloroisocyanurate, dihydrate	Oral	NOAEL	1523	Mouse	OECD 453 (EU B.33)	24 month(s)		
silica, amorphous			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
disodium metasilicate pentahydrate	No data available
alkyl alcohol alkoxylate	No data available
sodium dichloroisocyanurate, dihydrate	No data available
silica, amorphous	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
disodium metasilicate pentahydrate	No data available
alkyl alcohol alkoxylate	No data available
sodium dichloroisocyanurate, dihydrate	No data available
silica, amorphous	No data available

## Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

## Potential adverse health effects and symptoms

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

## SECTION 12: Ecological information

## 12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below

## Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	LC <sub>50</sub>	210	<i>Brachydanio rerio</i>	Method not given	96
disodium metasilicate pentahydrate	LC <sub>50</sub>	210	<i>Brachydanio rerio</i>	Method not given	96
alkyl alcohol alkoxylate		No data available			-
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	0.23	<i>Lepomis macrochirus</i>	Method not given	96
silica, amorphous	LC <sub>50</sub>	> 10000	<i>Brachydanio rerio</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC <sub>50</sub>	1700	<i>Daphnia</i>	Method not given	48
disodium metasilicate pentahydrate	EC <sub>50</sub>	216	<i>Daphnia magna Straus</i>	Method not given	96
alkyl alcohol alkoxylate	EC <sub>50</sub>	10 - 100	<i>Daphnia magna Straus</i>	Method not given	48
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	0.17	<i>Daphnia magna Straus</i>	ASTM draft method	48
silica, amorphous	EC <sub>50</sub>	> 10000	<i>Daphnia magna Straus</i>	Method not given	24

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC <sub>50</sub>	207	<i>Chlorella pyrenoidosa</i>	Method not given	72
disodium metasilicate pentahydrate	EC <sub>50</sub>	207	<i>Desmodesmus subspicatus</i>	Method not given	72
alkyl alcohol alkoxylate		No data available			-
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	< 0.5	<i>Scenedesmus</i>	Non guideline test	3

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			<i>obliquus</i>		
silica, amorphous		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			-
disodium metasilicate pentahydrate		No data available			-
alkyl alcohol alkoxylate		No data available			-
sodium dichloroisocyanurate, dihydrate		No data available			-
silica, amorphous		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	<i>Activated sludge</i>	Method not given	3 hour(s)
disodium metasilicate pentahydrate	EC <sub>0</sub>	> 1000	<i>Pseudomonas putida</i>	Method not given	0.5 hour(s)
alkyl alcohol alkoxylate	EC <sub>10</sub>	> 10000	<i>Activated sludge</i>	DIN 38412, Part 27	17 hour(s)
sodium dichloroisocyanurate, dihydrate		No data available			
silica, amorphous		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				
disodium metasilicate pentahydrate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Oncorhynchus mykiss</i>	OECD 215	28 day(s)	
silica, amorphous		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				
disodium metasilicate pentahydrate		No data available				
alkyl alcohol alkoxylate		No data available				
sodium dichloroisocyanurate, dihydrate	NOEC	160	<i>Daphnia magna</i>	OECD 211	21 day(s)	
silica, amorphous		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
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		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
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	

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		available				
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Eisenia fetida</i>	OECD 207	14	
silica, amorphous		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
disodium metasilicate pentahydrate		No data available			-	
alkyl alcohol alkoxylate		No data available			-	
sodium dichloroisocyanurate, dihydrate		No data available			-	
silica, amorphous		No data available			-	

**12.2 Persistence and degradability****Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

**Biodegradation**

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
disodium metasilicate					Not applicable (inorganic substance)
disodium metasilicate pentahydrate					Not applicable (inorganic substance)
alkyl alcohol alkoxylate					

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			day(s)		
sodium dichloroisocyanurate, dihydrate		Oxygen depletion	2 % in 28d day(s)	OECD 301D	Not readily biodegradable.
silica, amorphous					Not applicable (inorganic substance)

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			
disodium metasilicate pentahydrate	No data available		No bioaccumulation expected	
alkyl alcohol alkoxylate	No data available			
sodium dichloroisocyanurate, dihydrate	-0.0056	Method not given	No bioaccumulation expected	
silica, amorphous	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
disodium metasilicate	No data available				
disodium metasilicate pentahydrate	No data available				
alkyl alcohol alkoxylate	No data available				
sodium dichloroisocyanurate, dihydrate	No data available				
silica, amorphous	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				
disodium metasilicate pentahydrate	No data available				Potential for mobility in soil, soluble in water
alkyl alcohol alkoxylate	No data available				
sodium dichloroisocyanurate, dihydrate	No data available				
silica, amorphous	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:

European Waste Catalogue:

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.  
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: 1759

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**14.2 UN proper shipping name:**

Corrosive solid, n.o.s. ( disodium trioxosilicate , sodium dichloroisocyanurate dihydrate )

**14.3 Transport hazard class(es):**

Class: 8

Label(s): 8

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

Environmentally hazardous: Yes

Marine pollutant: Yes

**14.6 Special precautions for user:****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: C10

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****Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII):** Not applicable.**Ingredients according to EC Detergents Regulation 648/2004**

phosphates

&gt;=30%

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

&lt; 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*

**SDS code:** MS1002178**Version:** 01.0**Revision:** 2015-06-04**Classification procedure**

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

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

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and 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.
- H411 - Toxic to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.
- R22 - Harmful if swallowed.
- R31 - Contact with acids liberates toxic gas.
- R34 - Causes burns.
- R36 - Irritating to eyes.
- R37 - Irritating to respiratory system.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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
- ATE - Acute Toxicity Estimate

End of Safety Data Sheet