

## Suma Star Plus D1-PLUS

Revision: 2013-01-04

Version: 09

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

#### 1.1 Product identifier

Trade name: Suma Star Plus D1-PLUS

#### 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

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

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

Diversey Ltd

##### Contact details

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 Directive 1999/45/EC and corresponding national legislation.

##### Indication of danger

Xn - Harmful

##### Risk phrases:

R22 - Harmful if swallowed.

R38 - Irritating to skin.

R41 - Risk of serious damage to eyes.

#### 2.2 Label elements



Xn - Harmful

Contains benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine

##### Risk phrases:

R22 - Harmful if swallowed.

R38 - Irritating to skin.

R41 - Risk of serious damage to eyes.

##### Safety phrases:

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

S37/39 - Wear suitable gloves and eye/face protection.

#### 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

## Suma Star Plus D1-PLUS

## 3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Classification (EC) 1272/2008	Notes	Weight percent
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	289-091-8	85995-83-1	No data available	Xn; R22-38-41	Eye Dam. 1 (H318) Acute Tox. 4 (H302) Skin Irrit. 2 (H315)		30-50
propane-1,2-diol	200-338-0	57-55-6	01-2119456809-23	-	-		10-20
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	617-428-4	83016-76-6	No data available	Xi; R36/38	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)		10-20
alkyl polyglucoside	500-522-3	110615-47-9	01-2119489418-23	Xi; R38-41	Eye Dam. 1 (H318) Skin Irrit. 2 (H315)		3-10

\* 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 unconscious place in recovery position and seek medical advice.

## Inhalation

Remove from source of exposure. Get medical attention.

## Skin contact:

Rinse with plenty of water. Take off all contaminated clothing immediately. If irritation develops get medical attention.

## Eye contact:

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

## Ingestion:

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

## 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:

Causes irritation.

## Skin contact:

Causes irritation.

## Eye contact:

Causes severe irritation.

## Ingestion:

Causes irritation. Harmful.

## 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

Wear suitable gloves and eye/face protection.

## 6.2 Environmental precautions

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

## 6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

## 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. 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. For incompatible materials see subsection 10.5.

**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)	UK - Long term value(s)	UK - Short term value(s)
propane-1,2-diol	150 ppm total particulate and vapour 474 mg/m <sup>3</sup> total particulate and vapour 10 mg/m <sup>3</sup> particulate	450 ppm total particulate and vapour 1422 mg/m <sup>3</sup> total particulate and vapour 30 mg/m <sup>3</sup> particulate

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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	No data available	No data available	No data available	No data available
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	No data available	No data available	No data available	35.7

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)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	No data available	No data available	No data available	No data available
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	No data available	No data available	No data available	595000

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)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	No data available	No data available	No data available	No data available
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	No data available	No data available	No data available	357000

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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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	No data available	No data available	10	168
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	No data available	No data available	No data available	420

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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	No data available	No data available	10	50
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	No data available	No data available	No data available	124

## 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)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	260	26	183	20000
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	0.1	0.005	0.0295	5000

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available	No data available	No data available	No data available
propane-1,2-diol	572	57.2	50	No data available
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available	No data available	No data available	No data available
alkyl polyglucoside	0.487	0.048	0.654	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. 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:

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

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:

No special requirements under normal use conditions.

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**Respiratory protection:** No special requirements under normal use conditions.

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

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 0.08

**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:** No special requirements under normal use conditions.

**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:** Liquid

**Colour:** Clear Yellow

**Odour:** Slightly perfumed

**Odour threshold:** Not applicable.

**pH:** ≈ 8 (neat)

**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:** 1.05 g/cm<sup>3</sup> (20°C)

**Solubility in / Miscibility with Water:** Fully miscible

**Autoignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Viscosity:** ≈ 270 mPa.s (20°C)

**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

### 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

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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**

None known under normal use conditions.

**10.6 Hazardous decomposition products**

None known under normal storage and use conditions.

**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)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	LD <sub>50</sub>	200 - 2000	Rat	Read across	
propane-1,2-diol	LD <sub>50</sub>	20000	Rat	Method not given	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	LD <sub>50</sub>	> 2000		OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			
propane-1,2-diol	LD <sub>50</sub>	> 2000	Rabbit	Method not given	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	LD <sub>50</sub>	> 2000		OECD 402 (EU B.3)	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			
propane-1,2-diol		No data available			
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside		No data available			

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	Irritant	Rabbit	OECD 404 (EU B.4)	
propane-1,2-diol	Not irritant	Rabbit	OECD 404 (EU B.4)	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	Irritant		OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	Severe damage	Rabbit	Method not given	
propane-1,2-diol	Not corrosive or irritant	Rabbit	OECD 405 (EU B.5)	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	Severe damage		OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
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benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available			
propane-1,2-diol	No data available			
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	No data available			

**Sensitisation**

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
propane-1,2-diol	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	Not sensitising		OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available			
propane-1,2-diol	No data available			
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available				
propane-1,2-diol		No data available				
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available				
alkyl polyglucoside		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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available				
propane-1,2-diol		No data available				
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available				
alkyl polyglucoside		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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available				
propane-1,2-diol		No data available				
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available				
alkyl polyglucoside		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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine			No data available					
propane-1,2-diol			No data available					

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lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt			No data available					
alkyl polyglucoside			No data available					

**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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available
propane-1,2-diol	No evidence for carcinogenicity, negative test results
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available
alkyl polyglucoside	No evidence for carcinogenicity, weight-of-evidence

## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
propane-1,2-diol	No evidence for mutagenicity, negative test results	Method not given	No data available	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available		No data available	
alkyl polyglucoside	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine			No data available				
propane-1,2-diol			No data available				No evidence for reproductive toxicity
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt			No data available				
alkyl polyglucoside			No data available		OECD 416, (EU B.35), oral		No evidence for reproductive toxicity

**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)
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benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	LC <sub>50</sub>	> 1 - 10	Cyprinus carpio	OECD 203, flow-through	96
propane-1,2-diol	LC <sub>50</sub>	> 5500	Fish	Method not given	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	LC <sub>50</sub>	1 - 10	Fish	ISO 7346	

## Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	EC <sub>50</sub>	> 1 - 10	Daphnia magna Straus	OECD 202, static	48
propane-1,2-diol	EC <sub>50</sub>	> 100	Daphnia	Method not given	48
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	EC <sub>50</sub>	10 - 100	Daphnia	OECD 202	

## Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	EC <sub>50</sub>	> 10 - 100	Desmodesmus subspicatus	OECD 201, static	72
propane-1,2-diol	EC <sub>50</sub>	24200	Desmodesmus subspicatus	OECD 201	72
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	EC <sub>50</sub>	10 - 100	Not specified	88/302/EEC, Part C, static	

## Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			
propane-1,2-diol		No data available			
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside		No data available			

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			
propane-1,2-diol	EC <sub>0</sub>	> 20000	Pseudomonas putida	Method not given	18 hour(s)
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available			
alkyl polyglucoside	EC <sub>0</sub>	> 100	Bacteria	OECD 209	

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available				
propane-1,2-diol		No data available				
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available				
alkyl polyglucoside	NOEC	1 - 10	Not specified	OECD 204	14 day(s)	

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available				
propane-1,2-diol	NOEC	13020	Ceriodaphnia dubia	Method not given	7 day(s)	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt		No data available				
alkyl polyglucoside	NOEC	1 - 10	Daphnia sp.	OECD 202		

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

**Terrestrial toxicity**

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if 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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	Activated sludge, aerobe	Method not given	> 60 % in 28 day(s)	OECD 301A OECD 301B	Readily biodegradable
propane-1,2-diol			> 70 % in 28 day(s)	OECD 301A	Readily biodegradable
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt					No data available
alkyl polyglucoside		Oxygen depletion		Method not given	Readily biodegradable

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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available			
propane-1,2-diol	-1.07	Method not given	No bioaccumulation expected	
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available			
alkyl polyglucoside	=< 0.07	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available				
propane-1,2-diol	No data available				
lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available				
alkyl polyglucoside	No data available				

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available				
propane-1,2-diol	No data available				

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lauryl alcohol, polymer with oxirane, sulphuric acid ester, 2-hydroxy-1-aminopropane salt	No data available				
alkyl polyglucoside	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 29\* - detergents containing dangerous substances.

**Empty packaging**

**Recommendation:**

Dispose of observing national or local regulations.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

**SECTION 14: Transport information****ADR, RID, ADN, IMO/IMDG, ICAO/IATA**

**14.1 UN number:** Non-dangerous goods

**14.2 UN proper shipping name:** Non-dangerous goods

**14.3 Transport hazard class(es):** Non-dangerous goods

**Class:-**

**14.4 Packing group:** Non-dangerous goods

**14.5 Environmental hazards:** Non-dangerous goods

**14.6 Special precautions for user:** Non-dangerous goods

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** The product is not transported in bulk tankers.

**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**

anionic surfactants

>=30%

non-ionic surfactants

< 5%

perfumes, Limonene

**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:** MSDS3346

**Version:** 09

**Revision:** 2013-01-04

**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**

- R41 - Risk of serious damage to eyes.
- R38 - Irritating to skin.
- R22 - Harmful if swallowed.
- R36/38 - Irritating to eyes and skin.
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.

**Suma Star Plus D1-PLUS****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**