



## Suma Star Plus D1-PLUS

Revision: 2019-02-07

Version: 10.2

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

#### Contact details

Diversey Hygiene Sales Limited

Jamestown Road, Finglas, Dublin 11, Ireland

Tel: 01 8081808 (9am - 5pm Mon-Fri)

Email: dublin.orders@diversey.com

#### 1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)

National Poisons Information Centre

Tel: 01 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)

Tel: 01 809 2566 (health care professionals)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Acute Tox. 4 (H302)

Skin Irrit. 2 (H315)

Eye Dam. 1 (H318)

Aquatic Chronic 3 (H412)

#### 2.2 Label elements



**Signal word:** Danger.

Contains benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine (MIPA-Dodecylbenzenesulfonate), Alcohols, C12-14 (even numbered), ethoxylated ( $\leq 2.5$  moles EO), sulfated, monoisopropanolamine salt (MIPA Laureth Sulfate).

#### Hazard statements:

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements:

P280 - Wear eye or face protection.

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.

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

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	939-479-4	85995-83-1	No data available	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		30-50
propane-1,2-diol	200-338-0	57-55-6	01-2119456809-23	Not classified as hazardous		10-20
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	932-185-7	1187742-72-8	01-2119976350-37	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		10-20
alkyl polyglucoside	600-975-8	110615-47-9	01-2119489418-23	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)		3-10
d-limonene	227-813-5	5989-27-5	01-2119529223-47	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		0.01-0.1

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.

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

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

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident.

**Inhalation:**

Get medical attention or advice if you feel unwell.

**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before re-use. If skin irritation or rash occurs: Get medical advice or attention.

**Eye contact:**

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

**Ingestion:**

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. 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:**

No known effects or symptoms in normal use.

**Skin contact:**

Causes irritation.

**Eye contact:**

Causes severe or permanent damage.

**Ingestion:**

No known effects or symptoms in normal use.

**4.3 Indication of any immediate medical attention and special treatment needed**

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

**5.2 Special hazards arising from the substance or mixture**

No special hazards known.

**5.3 Advice for firefighters**

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear eye/face protection.

**6.2 Environmental precautions**

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

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****Measures to prevent fire and explosions:**

No special precautions required.

**Measures required to protect the environment:**

For environmental exposure controls see subsection 8.2.

**Advices on general occupational hygiene:**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash 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 eyes. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

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

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

For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

**7.3 Specific end use(s)**

No specific advice for end use available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Workplace exposure limits**

Air limit values, if available:

Ingredient(s)	Long term value(s)	Short term value(s)
propane-1,2-diol	10 mg/m <sup>3</sup> particulates 150 ppm total vapour and particulates 470 mg/m <sup>3</sup> total vapour and particulates	1410 mg/m <sup>3</sup> particulates 30 mg/m <sup>3</sup> 450 ppm total vapour and particulates

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	-	-	-	-
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available	No data available	No data available	15
alkyl polyglucoside	-	-	-	35.7
d-limonene	-	-	-	4.76

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	-
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available	No data available	0.132 mg/cm <sup>2</sup> skin	2750
alkyl polyglucoside	No data available	-	No data available	595000
d-limonene	0.222 mg/cm <sup>2</sup> skin	-	No data available	-

DNEL dermal exposure - Consumer

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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)
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	-
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available	No data available	0.079 mg/cm <sup>2</sup> skin	1650
alkyl polyglucoside	No data available	-	No data available	357000
d-limonene	0.111 mg/cm <sup>2</sup> skin	-	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
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	-	-	10	168
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available	No data available	No data available	175
alkyl polyglucoside	-	-	-	420
d-limonene	-	-	-	33.3

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	-	-	10	50
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available	No data available	No data available	52
alkyl polyglucoside	-	-	-	124
d-limonene	-	-	-	8.33

## 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
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	0.014	0.0014	0.077	10000
alkyl polyglucoside	0.176	0.018	0.0295	5000
d-limonene	0.0054	0.00054	-	1.8

## 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	-
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	0.0617	0.00617	7.5	No data available
alkyl polyglucoside	1.516	0.065	0.654	-
d-limonene	1.32	0.13	0.262	-

## 8.2 Exposure controls

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

## Recommended safety measures for handling the undiluted product:

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 Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min

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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.  
**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
<b>Physical State:</b> Liquid	
<b>Colour:</b> Clear, Yellow	
<b>Odour:</b> Slightly perfumed	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b> $\approx 8$ (neat)	ISO 4316
<b>Melting point/freezing point (°C):</b> Not determined	Not relevant to classification of this product
<b>Initial boiling point and boiling range (°C):</b> Not determined	See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available		
propane-1,2-diol	185-190	Method not given	1013
Alcohols, C12-14 (even numbered), ethoxylated ( $\leq 2.5$ moles EO), sulfated, monoisopropanolamine salt	No data available		
alkyl polyglucoside	> 100	Method not given	1013
d-limonene	175-178	Method not given	1013

	Method / remark
<b>Flammability (liquid):</b> Not flammable.	
<b>Flash point (°C):</b> Not applicable.	
<b>Sustained combustion:</b> Not applicable. (UN Manual of Tests and Criteria, section 32, L.2)	
<b>Evaporation rate:</b> Not determined	Not relevant to classification of this product
<b>Flammability (solid, gas):</b> Not applicable to liquids	
<b>Upper/lower flammability limit (%):</b> Not determined	See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
propane-1,2-diol	2.6	12.6
d-limonene	0.7	6.1

	Method / remark
<b>Vapour pressure:</b> Not determined	See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available		
propane-1,2-diol	18.6	Method not given	20
Alcohols, C12-14 (even numbered), ethoxylated ( $\leq 2.5$ moles EO), sulfated, monoisopropanolamine salt	No data available		
alkyl polyglucoside	< 0.0077	Method not given	20
d-limonene	190-230	Method not given	20

**Vapour density:** Not determined  
**Relative density:**  $\approx$  1.05 (20 °C)  
**Solubility in / Miscibility with Water:** Fully miscible

**Method / remark**

Not relevant to classification of this product  
 OECD 109 (EU A.3)

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available		
propane-1,2-diol	Soluble	Method not given	
Alcohols, C12-14 (even numbered), ethoxylated ( $\leq$ 2.5 moles EO), sulfated, monoisopropanolamine salt	No data available		
alkyl polyglucoside	No data available		
d-limonene	Insoluble	Method not given	20

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

**Method / remark**

**Autoignition temperature:** Not determined  
**Decomposition temperature:** Not applicable.  
**Viscosity:**  $\approx$  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:** Not corrosive

Not relevant to classification of this product  
 Weight of evidence

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**

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**

Mixture data:

**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): 1500

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>	300 - 2000	Rat	Read across	
propane-1,2-diol	LD <sub>50</sub>	> 10000	Rat	Method not given	
Alcohols, C12-14 (even numbered), ethoxylated ( $\leq$ 2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	LD <sub>50</sub>	> 5000	Rat	OECD 401 (EU B.1)	
d-limonene	LD <sub>50</sub>	4400 - 5100	Rat	Method not given	

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## 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	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	LD <sub>50</sub>	> 5000	Rabbit	OECD 402 (EU B.3)	
d-limonene	LD <sub>50</sub>	> 5000	Rabbit	Method not given	

## 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	LC <sub>50</sub>	> 317 (mist) No mortality observed	Rabbit	Non guideline test	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside		No data available			
d-limonene		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)	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	Irritant		OECD 404 (EU B.4)	
d-limonene	Irritant	Rabbit	Method not given	

## 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)	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	Severe damage		OECD 405 (EU B.5)	
d-limonene	No data available			

## Respiratory tract irritation and corrosivity

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			
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	No data available			
d-limonene	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	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
d-limonene	Sensitising	Guinea pig	Method not given	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with	No data available			

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isopropanolamine				
propane-1,2-diol	No data available			
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	No data available			
d-limonene	No data available			

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

## Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
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	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available		No data available	
alkyl polyglucoside	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
d-limonene	No data available		No data 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
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available
alkyl polyglucoside	No evidence for carcinogenicity, weight-of-evidence
d-limonene	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
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt			No data available				
alkyl polyglucoside	NOAEL	Developmental toxicity Maternal toxicity	1000	Rat	OECD 414 (EU B.31), oral OECD 421, oral		No evidence for reproductive toxicity
d-limonene			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				
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside	NOAEL	100	Rat	OECD 408 (EU B.26)		
d-limonene		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				
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside		No data available				



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		available				
d-limonene		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				
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside		No data available				
d-limonene		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					
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt			No data available					
alkyl polyglucoside			No data available					
d-limonene			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available
propane-1,2-diol	No data available
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available
alkyl polyglucoside	No data available
d-limonene	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	No data available
propane-1,2-diol	No data available
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available
alkyl polyglucoside	No data available
d-limonene	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)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with	LC <sub>50</sub>	> 1 - 10	<i>Cyprinus carpio</i>	OECD 203,	96

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isopropanolamine				flow-through	
propane-1,2-diol	LC <sub>50</sub>	> 1000	Fish	Method not given	24
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	LC <sub>50</sub>	1 - 10	Fish	ISO 7346	-
d-limonene	LC <sub>50</sub>	0.72	<i>Pimephales promelas</i>	OECD 203 (EU C.1)	96

## 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	<i>Daphnia magna Straus</i>	OECD 202, static	48
propane-1,2-diol	EC <sub>50</sub>	> 100	<i>Daphnia</i>	Method not given	48
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	EC <sub>50</sub>	7	<i>Daphnia magna Straus</i>	Method not given	48
d-limonene	EC <sub>50</sub>	0.36	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

## Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine	EC <sub>50</sub>	> 10 - 100	<i>Desmodesmus subspicatus</i>	OECD 201, static	72
propane-1,2-diol	EC <sub>50</sub>	24200	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	EC <sub>50</sub>	10 - 100	Not specified	88/302/EEC, Part C, static	-
d-limonene	E <sub>r</sub> C <sub>50</sub>	150	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72

## 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			-
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside		No data available			-
d-limonene		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	<i>Pseudomonas putida</i>	Method not given	18 hour(s)
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available			
alkyl polyglucoside	EC <sub>0</sub>	> 100	Bacteria	OECD 209	
d-limonene		No data available			

## 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				
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside	NOEC	1 - 10	Not specified	OECD 204	14 day(s)	
d-limonene		No data available				

## 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.,		No data				

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compds. with isopropanolamine		available				
propane-1,2-diol	NOEC	13020	<i>Ceriodaphnia dubia</i>	Method not given	7 day(s)	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside	NOEC	1 - 10	<i>Daphnia sp.</i>	OECD 202		
d-limonene		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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			-	
propane-1,2-diol		No data available			-	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt		No data available				
alkyl polyglucoside		No data available			-	
d-limonene		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
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			-	
propane-1,2-diol		No data available			-	
alkyl polyglucoside		No data available			-	
d-limonene		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			-	
propane-1,2-diol		No data available			-	
alkyl polyglucoside		No data available			-	
d-limonene		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			-	
propane-1,2-diol		No data available			-	
alkyl polyglucoside		No data available			-	
d-limonene		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs., compds. with isopropanolamine		No data available			-	
propane-1,2-diol		No data available			-	
alkyl polyglucoside		No data available			-	
d-limonene		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
benzenesulphonic acid, 2(or 4)-C10-14-alkyl derivs.,		No data			-	

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compds. with isopropanolamine		available			
propane-1,2-diol		No data available		-	
alkyl polyglucoside		No data available		-	
d-limonene		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
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
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt			> 60 % in 28 day(s)	OECD 301B	Readily biodegradable
alkyl polyglucoside	Activated sludge, aerobe	BOD removal	88% in 28 day(s)	OECD 301D	Readily biodegradable
d-limonene			80 % in 28 day(s)	OECD 301D	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

**12.3 Bioaccumulative potential**Partition coefficient n-octanol/water (log K<sub>ow</sub>)

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	
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available			
alkyl polyglucoside	≤ 0.07	Method not given	No bioaccumulation expected	
d-limonene	No data available		High potential for bioaccumulation	

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				
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available				
alkyl polyglucoside	No data available				
d-limonene	683.1		Method not given	High potential for bioaccumulation	

**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				Potential for mobility in soil, soluble in water
Alcohols, C12-14 (even numbered), ethoxylated (<=2.5 moles EO), sulfated, monoisopropanolamine salt	No data available				
alkyl polyglucoside	1.7		Method not given		
d-limonene	No data available				High potential for mobility in soil

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**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:**

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

**European Waste Catalogue:**

20 01 29\* - detergents containing dangerous substances.

**Empty packaging****Recommendation:**

Dispose of observing national or local regulations.

**Suitable cleaning agents:**

Water, if necessary with cleaning agent.

**SECTION 14: Transport information****Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

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

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

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

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

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

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

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Non-dangerous goods

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

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation

**Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII):** Not applicable.

UFI: PUC4-G0H2-400T-5FAU

**Ingredients according to EC Detergents Regulation 648/2004**

anionic surfactants	> 30 %
non-ionic surfactants	< 5 %
perfumes, Limonene	

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.

**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:** MSDS3346

**Version:** 10.2

**Revision:** 2019-02-07

**Reason for revision:**

This data sheet contains changes from the previous version in section(s): 3, 8, 9, 11, 12, 16

**Classification procedure**

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

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

- H226 - Flammable liquid and vapour.
- H302 - Harmful if swallowed.
- H303 - May be harmful if swallowed.

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- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- H412 - Harmful to aquatic life with long lasting effects.

**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
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organization for Economic Cooperation and Development

**End of Safety Data Sheet**