



## Safety Data Sheet

According to Regulation (EC) No 1907/2006

### Shield 3 Way Toilet Cleaner

Revision: 2020-06-14

Version: 01.0

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

##### 1.1 Product identifier

Trade name: Shield 3 Way Toilet Cleaner

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

###### Identified uses:

For professional use only.

AISE-P305 - Sanitary cleaner. Manual process

AISE-P307 - Descaling agent. 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 Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: customerservice.uk@diversey.com

##### 1.4 Emergency telephone number

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

For medical or environmental emergency only:

call 0800 052 0185

#### SECTION 2: Hazards identification

##### 2.1 Classification of the substance or mixture

Skin Irrit. 2 (H315)

Eye Irrit. 2 (H319)

Met. Corr. 1 (H290)

##### 2.2 Label elements



Signal word: Warning.

##### Hazard statements:

H315 + H319 - Causes skin and serious eye irritation.

H290 - May be corrosive to metals.

##### 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	Notes	Weight percent
sulphamic acid	226-218-8	5329-14-6	01-2119488633-28,	Skin Irrit. 2 (H315)		3-10

			01-2119846728-23, 01-2119982121-44	Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412)		
alkylbenzenesulphonic acid	287-494-3	85536-14-7	01-2111-9490234-40	Skin Corr. 1C (H314) Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)		3-10
citric acid	201-069-1	77-92-9	01-2119457026-42	Eye Irrit. 2 (H319)		3-10

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

**Inhalation:** Get medical attention or advice if you feel unwell.  
**Skin contact:** Take off immediately all contaminated clothing and wash it before reuse.  
**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. If eye irritation persists: Get medical advice or attention.  
**Ingestion:** Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.  
**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 irritation.  
**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

No special measures required.

### 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

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

### 6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Measures to prevent fire and explosions:

No special precautions required.

#### Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

#### Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with

other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing. Wash contaminated clothing before reuse. 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:

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
sulphamic acid	-	-	-	1.06
alkylbenzenesulphonic acid	-	-	-	0.425
citric acid	-	-	-	-

##### 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)
sulphamic acid	No data available	-	No data available	-
alkylbenzenesulphonic acid	-	-	-	85
citric acid	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)
sulphamic acid	No data available	-	No data available	-
alkylbenzenesulphonic acid	-	-	-	42.5
citric acid	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
sulphamic acid	-	-	-	7.5
alkylbenzenesulphonic acid	-	-	-	6
citric acid	-	-	-	-

##### 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
sulphamic acid	-	-	-	1.85
alkylbenzenesulphonic acid	-	-	-	1.5
citric acid	-	-	-	-

#### 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)
sulphamic acid	0.3	0.03	0.3	200
alkylbenzenesulphonic acid	0.268	0.027	0.017	3.43
citric acid	0.44	0.044	-	> 1000

##### Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater	Sediment, marine	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
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	(mg/kg)	(mg/kg)		
sulphamic acid	0.3	0.03	3	-
alkylbenzenesulphonic acid	8.1	6.8	35	-
citric acid	34.6	3.46	33.1	-

## 8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

**Appropriate engineering controls:** No special requirements under normal use conditions.  
**Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

### 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 (EN 166).

**Hand protection:** Repeated or prolonged contact: 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.

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

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

## 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, Medium, Red	
<b>Odour:</b> Slightly perfumed	
<b>Odour threshold:</b> Not applicable	
<b>pH</b> < 2 (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)
sulphamic acid	205	Method not given	1013
alkylbenzenesulphonic acid	190	Method not given	
citric acid	No data available		

	Method / remark
<b>Flammability (liquid):</b> Not flammable.	
<b>Flash point (°C):</b> Not applicable.	
<b>Sustained combustion:</b> No	
(UN Manual of Tests and Criteria, section 32, L.2)	

**Evaporation rate:** Not relevant for classification of this product.

**Flammability (solid, gas):** Not applicable to liquids

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

Substance data, flammability or explosive limits, if available:

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

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
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sulphamic acid	0	Method not given	20
alkylbenzenesulphonic acid	0.15		20
citric acid	No data available		

**Vapour density:** Not determined  
**Relative density:**  $\approx 1.06$  (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)
sulphamic acid	213	Method not given	20
alkylbenzenesulphonic acid	> 10	Method not given	20
citric acid	1630	Method not given	

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

**Method / remark**

**Autoignition temperature:** Not determined  
**Decomposition temperature:** Not applicable.  
**Viscosity:**  $\approx 95$  mPa.s (20 °C)  
**Explosive properties:** Not explosive.  
**Oxidising properties:** Not oxidising.

DM-006 Viscosity - Additional

**9.2 Other information**

**Surface tension (N/m):** Not determined  
**Corrosion to metals:** Corrosive

OECD 115  
 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**

Reacts with alkali and metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

**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): >2000

**Skin irritation and corrosivity**

**Result:** Skin irritant 2

**Species:** Not applicable

**Method:** Weight of evidence

**Eye irritation and corrosivity**

**Result:** Eye irritant 2

**Species:** Not applicable.

**Method:** Weight of evidence

Substance data, where relevant and available, are listed below:.

**Acute toxicity**

Acute oral toxicity

Ingredient(s)	Endpoint	Value	Species	Method	Exposure
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## Shield 3 Way Toilet Cleaner

		(mg/kg)			time (h)
sulphamic acid	LD <sub>50</sub>	2065	Rat	Method not given	
alkylbenzenesulphonic acid	LD <sub>50</sub>	1470	Rat	OECD 401 (EU B.1)	
citric acid	LD <sub>50</sub>	3000	Rat	Method not given	

## Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sulphamic acid		No data available			
alkylbenzenesulphonic acid	LD <sub>50</sub>	> 2000	Rat	OECD 402 (EU B.3)	
citric acid	LD <sub>50</sub>	> 2000	Rat	Method not given	

## Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphamic acid		No data available			
alkylbenzenesulphonic acid		No data available			
citric acid		No data available			

## Irritation and corrosivity

## Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphamic acid	Irritant	Rabbit	OECD 404 (EU B.4)	
alkylbenzenesulphonic acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
citric acid	Not irritant	Rabbit	OECD 404 (EU B.4)	

## Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphamic acid	Severe damage	Rabbit	OECD 405 (EU B.5)	
alkylbenzenesulphonic acid	Severe damage	Rabbit	OECD 405 (EU B.5)	
citric acid	Irritant	Rabbit	OECD 405 (EU B.5)	

## Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphamic acid	No data available			
alkylbenzenesulphonic acid	No data available			
citric acid	No data available			

## Sensitisation

## Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sulphamic acid	No data available			
alkylbenzenesulphonic acid	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
citric acid	Not sensitising	Guinea pig	Method not given	

## Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sulphamic acid	No data available			
alkylbenzenesulphonic acid	No data available			
citric acid	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)
sulphamic acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
alkylbenzenesulphonic acid	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)
citric acid	No data available		No evidence of genotoxicity, negative test results	Method not given

## Carcinogenicity

Ingredient(s)	Effect
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sulphamic acid	No data available
alkylbenzenesulphonic acid	No evidence for carcinogenicity, weight-of-evidence
citric acid	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
sulphamic acid			No data available				
alkylbenzenesulphonic acid	NOAEL	Teratogenic effects	300	Rat	Read across	20 day(s)	
citric acid			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
sulphamic acid		No data available				
alkylbenzenesulphonic acid		No data available				
citric acid		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
sulphamic acid		No data available				
alkylbenzenesulphonic acid		No data available				
citric acid		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
sulphamic acid		No data available				
alkylbenzenesulphonic acid		No data available				
citric acid		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
sulphamic acid			No data available					
alkylbenzenesulphonic acid	Oral	NOAEL	85	Rat	Read across	9 month(s)		
citric acid			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
sulphamic acid	No data available
alkylbenzenesulphonic acid	No data available
citric acid	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sulphamic acid	No data available
alkylbenzenesulphonic acid	No data available
citric acid	No data available

## Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

## Potential adverse health effects and symptoms

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

**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)
sulphamic acid	LC <sub>50</sub>	70.3	<i>Pimephales promelas</i>	Method not given	96
alkylbenzenesulphonic acid	LC <sub>50</sub>	1 - 10	<i>Cyprinus carpio</i>	OECD 203 (EU C.1)	96
citric acid	LC <sub>50</sub>	440	<i>Leuciscus idus</i>	Method not given	48

**Aquatic short-term toxicity - crustacea**

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphamic acid		No data available			-
alkylbenzenesulphonic acid	EC <sub>50</sub>	1 - 10	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48
citric acid	EC <sub>50</sub>	1535	<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)
sulphamic acid		No data available			-
alkylbenzenesulphonic acid	EC <sub>50</sub>	10 - 100	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72
citric acid	LC <sub>50</sub>	425	<i>Scenedesmus quadricauda</i>	Method not given	168

**Aquatic short-term toxicity - marine species**

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sulphamic acid		No data available			-
alkylbenzenesulphonic acid		No data available			-
citric acid		No data available			-

**Impact on sewage plants - toxicity to bacteria**

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sulphamic acid	EC <sub>10</sub>	> 1000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)
alkylbenzenesulphonic acid		No data available			
citric acid	EC <sub>50</sub>	> 10000	<i>Pseudomonas putida</i>	Method not given	16 hour(s)

**Aquatic long-term toxicity****Aquatic long-term toxicity - fish**

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphamic acid		No data available				
alkylbenzenesulphonic acid	NOEC	0.1 - 1	<i>Lepomis macrochirus</i>	Read across	28 day(s)	
citric acid		No data available				

**Aquatic long-term toxicity - crustacea**

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphamic acid		No data available				
alkylbenzenesulphonic acid	NOEC	1 - 10	<i>Not specified</i>	Read across	32 day(s)	
citric acid		No data				



		available				
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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
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid		No data available			-	
citric acid		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
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid	LD <sub>50</sub>	> 1000	<i>Eisenia fetida</i>	OECD 207	14	
citric acid		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid	EC <sub>50</sub>	167		OECD 208	21	
citric acid		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid		No data available			-	
citric acid		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphamic acid		No data available			-	
alkylbenzenesulphonic acid		No data available			-	
citric acid		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
sulphamic acid					Not applicable (inorganic substance)
alkylbenzenesulphonic acid			94 % in 28 day(s)	OECD 301A	Readily biodegradable
citric acid			97 % in 28 day(s)	OECD 301B	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
sulphamic acid	0.1		No bioaccumulation expected	
alkylbenzenesulphonic acid	3.2	Method not given	Low potential for bioaccumulation	
citric acid	-1.72		No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sulphamic acid	No data available				
alkylbenzenesulphonic acid	2 - 500		Method not given	Low potential for bioaccumulation	
citric acid	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
sulphamic acid	No data available				
alkylbenzenesulphonic acid	No data available				Low mobility in soil
citric acid	No data available				Potential for mobility in soil, soluble in water

**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.

20 01 14\* - acids.

European Waste Catalogue:

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: 1760

14.2 UN proper shipping name:

Corrosive liquid, n.o.s. ( sulphamic acid , citric acid )

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

Transport hazard class (and subsidiary risks): 8

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

Environmentally hazardous: No

Marine pollutant: No

**14.6 Special precautions for user: None known.****14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.****Other relevant information:****ADR**

Classification code: C9

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****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: 259C-G1PP-600R-XWV2

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

anionic surfactants

5 - 15 %

perfumes , Hexyl Cinnamal, 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: MS1004799

Version: 01.0

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**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.
- H304 - May be fatal if swallowed and enters airways.
- H312 - Harmful in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.

- H319 - Causes serious eye irritation.
- H320 - Causes eye irritation.
- H332 - Harmful if inhaled.
- 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.
- 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**