

## Titan Sanitizer

Revision: 2015-04-05

Version: 03.0

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

#### 1.1 Product identifier

**Trade name:** Titan Sanitizer

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

**Identified uses:**

For professional use only.

AISE-P301 - General purpose cleaner. Manual process

AISE-P302 - General purpose cleaner. Spray and wipe manual process

AISE-P314 - Surface disinfectant. Manual process

AISE-P315 - Surface disinfectant. Spray and rinse 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: MSDSinfoUK@sealedair.com

#### 1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

EUH031

Eye Irrit. 2 (H319)

Aquatic Chronic 2 (H411)

#### Classification in accordance with Directive 1999/45/EC and corresponding national legislation

**Indication of danger**

Xi - Irritant

N - Dangerous for the environment

**Risk phrases:**

R31 - Contact with acids liberates toxic gas.

R36 - Irritating to eyes.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 2.2 Label elements



**Signal word:** Warning

**Hazard statements:**

EUH031 - Contact with acids liberates toxic gas.

H319 - Causes serious eye irritation.

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H411 - Toxic to aquatic life with long lasting effects.

### 2.3 Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Classification (1999/45/EC)	Notes	Weight percent
sodium dichloroisocyanurate, dihydrate	220-767-7	51580-86-0	01-2119489371-33	EUH031 Acute Tox. 4 (H302) STOT SE 3 (H335) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn;R22 R31 Xi;R36/37 N;R50/53		3-10
sodium alkylbenzenesulphonate	290-656-6	90194-45-9	No data available	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xn;R22 Xi;R38-41		3-10
disodium disilicate	215-687-4	1344-09-8	01-2119448725-31	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xi;R37/38-41		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

#### Inhalation

Get medical attention or advice if you feel unwell.

#### Skin contact:

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

#### Eye contact:

Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.

#### Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

#### Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Inhalation:

May cause bronchospasm in chlorine sensitive individuals.

#### Skin contact:

No known effects or symptoms in normal use.

#### 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. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

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**6.3 Methods and material for containment and cleaning up**

Collect mechanically.

**6.4 Reference to other sections**

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

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

**Measures required to protect the environment:**

For environmental exposure controls see subsection 8.2.

**Advices on general occupational hygiene:**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Sealed Air. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Use personal protective equipment as required. Use only with adequate ventilation.

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

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

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

**7.3 Specific end use(s)**

No specific advice for end use available.

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

Air limit values, if available:

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
sodium dichloroisocyanurate, dihydrate	-	-	-	1.15
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	-	-	-	0.8

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)
sodium dichloroisocyanurate, dihydrate	No data available	-	No data available	2.3
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	No data available	-	No data available	1.59

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)
sodium dichloroisocyanurate, dihydrate	No data available	-	No data available	1.15
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	No data available	-	No data available	0.8

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
sodium dichloroisocyanurate, dihydrate	-	-	-	8.11
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	-	-	-	5.61

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
sodium dichloroisocyanurate, dihydrate	-	-	-	1.99

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sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	-	-	-	1.38

**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)
sodium dichloroisocyanurate, dihydrate	0.00017	1.52	0.0017	0.59
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	7.5	1	7.5	348

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
sodium dichloroisocyanurate, dihydrate	7.56	-	0.756	-
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
disodium disilicate	-	-	-	-

**8.2 Exposure controls**

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

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

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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

**Appropriate engineering controls:** 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:** 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:** Should not reach sewage water or drainage ditch undiluted.

Recommended safety measures for handling the diluted product:

**Recommended maximum concentration (%):** 5

**Appropriate engineering controls:** Use only in well ventilated areas.  
**Appropriate organisational controls:** No special requirements under normal use conditions.

**Personal protective equipment**

**Eye / face protection:** Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.  
**Hand protection:** Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.  
**Body protection:** No special requirements under normal use conditions.  
**Respiratory protection:** No special requirements under normal use conditions.

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

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Information in this section refers to the product, unless it is specifically stated that substance data is listed

**Method / remark**

**Physical State:** Solid  
**Colour:** Blue  
**Odour:** Product specific  
**Odour threshold:** Not applicable  
**pH:**  
**Dilution pH:** ≈ 11 (10%)  
**Melting point/freezing point (°C):** Not determined  
**Initial boiling point and boiling range (°C):** Not determined

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium dichloroisocyanurate, dihydrate	Product decomposes before boiling	Read across	
sodium alkylbenzenesulphonate	No data available		

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disodium disilicate	> 100	Method not given	
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## Method / remark

**Flash point (°C):** Not applicable.  
**Sustained combustion:** Not determined  
**Evaporation rate:** Not determined  
**Flammability (solid, gas):** Not determined  
**Upper/lower flammability limit (%):** Not determined

Substance data, flammability or explosive limits, if available:

## Method / remark

**Vapour pressure:** Not determined

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium dichloroisocyanurate, dihydrate	0.006	Read across	20
sodium alkylbenzenesulphonate	No data available		
disodium disilicate	No data available		

## Method / remark

**Vapour density:** Not determined  
**Relative density:** 1.05 g/cm<sup>3</sup> (20 °C)  
**Solubility in / Miscibility with Water:** Soluble

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium dichloroisocyanurate, dihydrate	248.2	Read across	25
sodium alkylbenzenesulphonate	No data available		
disodium disilicate	Soluble	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 determined  
**Viscosity:** Not determined  
**Explosive properties:** Not explosive.  
**Oxidising properties:** Not oxidising

## 9.2 Other information

**Surface tension (N/m):** Not determined  
**Corrosion to metals:** Not applicable to solids or gases

Substance data, dissociation constant, if available:

Ingredient(s)	Value	Method	Temperature (°C)
disodium disilicate	9.9 - 12 (pKa)	Method not given	

## 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

Contact with acids liberates toxic gas. Reacts with acids. Keep away from acids.

## 10.6 Hazardous decomposition products

None known under normal storage and use conditions.

## SECTION 11: Toxicological information

## 11.1 Information on toxicological effects

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Mixture data:

**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): &gt;2000

**Eye irritation and corrosivity****Result:** Eye irritant 2**Method:** OECD 438

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)
sodium dichloroisocyanurate, dihydrate	LD <sub>50</sub>	1671	Rat	EPA OPP 81-1	-
sodium alkylbenzenesulphonate		No data available			
disodium disilicate	LD <sub>50</sub>	3400	Rat	Method not given	-

Acute dermal toxicity

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

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	> 0.27	Rat	OECD 403 (EU B.2)	4
sodium alkylbenzenesulphonate		No data available			
disodium disilicate		No mortality observed	Rat	Non guideline test	-

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-5	
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	Irritant		Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-4	
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	Severe damage		Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Irritating to respiratory tract			
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	Irritating to respiratory tract		Method not given	

**Sensitisation**

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	-
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	Not sensitising		Method not given	-

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	No data available			-
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	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)

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sodium dichloroisocyanurate, dihydrate	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	OECD 475 (EU B.11)
sodium alkylbenzenesulphonate	No data available		No data available	
disodium disilicate	No evidence for mutagenicity, negative test results		No data available	

## Carcinogenicity

Ingredient(s)	Effect
sodium dichloroisocyanurate, dihydrate	No evidence for carcinogenicity, negative test results
sodium alkylbenzenesulphonate	No data available
disodium disilicate	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
sodium dichloroisocyanurate, dihydrate	NOAEL	Developmental toxicity	190	Rat	OECD 416, (EU B.35), oral		
sodium alkylbenzenesulphonate			No data available				
disodium disilicate			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
sodium dichloroisocyanurate, dihydrate	NOAEL	115	Rat	Method not given	28	
sodium alkylbenzenesulphonate		No data available				
disodium disilicate	NOAEL	> 159	Rat	Method not given	180	No effects observed

## Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium dichloroisocyanurate, dihydrate		No data available			-	
sodium alkylbenzenesulphonate		No data available				
disodium disilicate		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
sodium dichloroisocyanurate, dihydrate	NOAEL	> 31	Rat	Method not given	28	
sodium alkylbenzenesulphonate		No data available				
disodium disilicate		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
sodium dichloroisocyanurate, dihydrate	Oral	NOAEL	1523	Mouse	OECD 453 (EU B.33)	24 month(s)		
sodium alkylbenzenesulphonate			No data available					
disodium disilicate			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
sodium dichloroisocyanurate, dihydrate	No data available
sodium alkylbenzenesulphonate	No data available
disodium disilicate	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium dichloroisocyanurate, dihydrate	No data available
sodium alkylbenzenesulphonate	No data available
disodium disilicate	Not applicable

## 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

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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)
sodium dichloroisocyanurate, dihydrate	LC <sub>50</sub>	0.23	<i>Lepomis macrochirus</i>	Method not given	96
sodium alkylbenzenesulphonate		No data available			
disodium disilicate	LC <sub>50</sub>	260 - 310	<i>Oncorhynchus mykiss</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	0.17	<i>Daphnia magna Straus</i>	ASTM draft method	48
sodium alkylbenzenesulphonate		No data available			
disodium disilicate	EC <sub>50</sub>	1700	<i>Daphnia magna Straus</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	EC <sub>50</sub>	< 0.5	<i>Scenedesmus obliquus</i>	Non guideline test	3
sodium alkylbenzenesulphonate		No data available			
disodium disilicate	EC <sub>50</sub>	207	<i>Desmodesmus subspicatus</i>	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium dichloroisocyanurate, dihydrate		No data available			-
sodium alkylbenzenesulphonate		No data available			
disodium disilicate		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium dichloroisocyanurate, dihydrate		No data available			
sodium alkylbenzenesulphonate		No data available			
disodium disilicate		No data available			

#### Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Oncorhynchus mykiss</i>	OECD 215	28 day(s)	
sodium alkylbenzenesulphonate		No data available				
disodium disilicate	NOEC	348	<i>Brachydanio rerio</i>	Method not given	96 hour(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium dichloroisocyanurate, dihydrate	NOEC	160	<i>Daphnia magna</i>	OECD 211	21 day(s)	
sodium alkylbenzenesulphonate		No data				



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		available				
disodium disilicate		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
sodium dichloroisocyanurate, dihydrate		No data available			-	
sodium alkylbenzenesulphonate		No data available				
disodium disilicate		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
sodium dichloroisocyanurate, dihydrate	NOEC	1000	<i>Eisenia fetida</i>	OECD 207	14	
disodium disilicate		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium dichloroisocyanurate, dihydrate		No data available			-	
disodium disilicate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium dichloroisocyanurate, dihydrate		No data available			-	
disodium disilicate		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium dichloroisocyanurate, dihydrate		No data available			-	
disodium disilicate		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium dichloroisocyanurate, dihydrate		No data available			-	
disodium disilicate		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
sodium dichloroisocyanurate, dihydrate		Oxygen depletion	2 % in 28d day(s)	OECD 301D	Not readily biodegradable.
sodium alkylbenzenesulphonate					No data available
disodium disilicate					Not applicable (inorganic substance)

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.

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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
sodium dichloroisocyanurate, dihydrate	-0.0056	Method not given	No bioaccumulation expected	
sodium alkylbenzenesulphonate	No data available			
disodium disilicate	No data available		Low potential for bioaccumulation	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium dichloroisocyanurate, dihydrate	No data available				
sodium alkylbenzenesulphonate	No data available				
disodium disilicate	No data available				

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
sodium dichloroisocyanurate, dihydrate	No data available				
sodium alkylbenzenesulphonate	No data available				
disodium disilicate	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:**

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 29\* - detergents containing dangerous substances.

**European Waste Catalogue:**

**Empty packaging**

**Recommendation:**

Dispose of observing national or local regulations.

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

**14.1 UN number:** 3077

**14.2 UN proper shipping name:**

Environmentally hazardous substance, solid, n.o.s. ( sodium dichloroisocyanurate dihydrate )

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

**Class:** 9

**Label(s):** 9

**14.4 Packing group:** III

**14.5 Environmental hazards:**

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**14.6 Special precautions for user:**

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

**Other relevant information:**

**ADR**

**Classification code:** M7

**Tunnel restriction code:** E

## Titan Sanitizer

Hazard identification number: 90

IMO/IMDG

EmS: F-A, S-F

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

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

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

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

phosphates	15 - 30%
anionic surfactants, disinfectants, non-ionic surfactants	< 5%

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out on the mixture

**SECTION 16: Other information**

*The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract*

MSDS code: MSDSGB6521

Version: 03.0

Revision: 2015-04-05

**Reason for revision:**

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 3, 8, 15

**Classification procedure**

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

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

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.
- R22 - Harmful if swallowed.
- R31 - Contact with acids liberates toxic gas.
- R36 - Irritating to eyes.
- R37 - Irritating to respiratory system.
- R38 - Irritating to skin.
- R41 - Risk of serious damage to eyes.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Abbreviations and acronyms:**

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

**End of Safety Data Sheet**