



## Titan Chlor Plus Tablets

Revision: 2018-01-25

Version: 02.2

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

#### 1.1 Product identifier

Trade name: Titan Chlor Plus Tablets

#### 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, Maarssebroeksedijk 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

For medical or environmental emergency only:

call 0800 052 0185

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

EUH031

Acute Tox. 4 (H332)

STOT SE 3 (H335)

Eye Irrit. 2 (H319)

Aquatic Acute 1 (H400)

Aquatic Chronic 1 (H410)

#### 2.2 Label elements



**Signal word:** Warning.

Contains troclosesone sodium (Troclosesone Sodium), sodium N-lauroyl sarcosinate (Sodium Lauroyl Sarcosinate).

#### Hazard statements:

EUH031 - Contact with acids liberates toxic gas.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

H319 - Causes serious eye irritation.

H410 - Very 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

## Titan Chlor Plus Tablets

## 3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
troclosene sodium	220-767-7	2893-78-9	No data available	Ox. Sol. 2 (H272) EUH031 Acute Tox. 4 (H302) STOT SE 3 (H335) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		50-75
adipic acid	204-673-3	124-04-9	No data available	Eye Irrit. 2 (H319)		10-20
sodium toluenesulphonate	235-088-1	12068-03-0	No data available	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)		3-10
sodium N-lauroyl sarcosinate	205-281-5	137-16-6	01-2119527780-39	Acute Tox. 2 (H330) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)		1-3

\* Polymer.

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

**Inhalation:**

Get medical attention or advice if you feel unwell.

**Skin contact:**

Wash skin with plenty of lukewarm, gently flowing water. If skin irritation or rash 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 respiratory irritation. 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

Flood with water.

### 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.

### 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.

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

Keep away from heat.

**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. 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. Store in a dry place. Store in a well-ventilated place. Keep cool. Keep away from heat and direct sunlight. Keep at temperature not exceeding 40 °C. 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
troclosene sodium	No data available	No data available	No data available	1.15
adipic acid	No data available	No data available	No data available	19
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

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)
troclosene sodium	No data available	No data available	No data available	2.3
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	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)
troclosene sodium	No data available	No data available	No data available	1.15
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	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
troclosene sodium	No data available	No data available	No data available	8.11
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local	Short term - Systemic	Long term - Local	Long term - Systemic

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	effects	effects	effects	effects
troclosene sodium	No data available	No data available	No data available	No data available
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

**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)
troclosene sodium	No data available	No data available	No data available	No data available
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
troclosene sodium	No data available	No data available	No data available	No data available
adipic acid	No data available	No data available	No data available	No data available
sodium toluenesulphonate	No data available	No data available	No data available	No data available
sodium N-lauroyl sarcosinate	No data available	No data available	No data available	No data available

**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:** 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 (%):** 0.325

**Appropriate engineering controls:** No special requirements under normal use conditions.  
**Appropriate organisational controls:** No special requirements under normal use conditions.

**Personal protective equipment**

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

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

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

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

	Method / remark
<b>Physical State:</b> Solid	
<b>Colour:</b> White	
<b>Odour:</b> Chlorine	
<b>Odour threshold:</b> Not applicable	
<b>pH:</b>	
<b>Dilution pH:</b> ≈ 5 (1%)	
<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	

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Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
troclosene sodium	No data available		
adipic acid	No data available		
sodium toluenesulphonate	No data available		
sodium N-lauroyl sarcosinate	No data available		

Method / remark

**Flash point (°C):** Not applicable.**Sustained combustion:** Not applicable.*( UN Manual of Tests and Criteria, section 32, L.2 )***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)
troclosene sodium	No data available		
adipic acid	No data available		
sodium toluenesulphonate	No data available		
sodium N-lauroyl sarcosinate	No data available		

Method / remark

**Vapour density:** Not determined**Relative density:** Not determined**Solubility in / Miscibility with Water:** Soluble

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
troclosene sodium	No data available		
adipic acid	No data available		
sodium toluenesulphonate	No data available		
sodium N-lauroyl sarcosinate	No data available		

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

Method / remark

**Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**Viscosity:** Not determined**Explosive properties:** Not explosive.**Oxidising properties:** After prolonged exposure above 40 °C the product could decompose and release excessive heat.**9.2 Other information****Surface tension (N/m):** Not determined**Corrosion to metals:** Not determined

Not relevant to classification of this product

Not applicable to solids or gases

Substance data, dissociation constant, if available:

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

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

Stable under normal storage and use conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions known under normal storage and use conditions.

**10.4 Conditions to avoid**

After prolonged exposure above 40 °C the product could decompose and release excessive heat.

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**10.5 Incompatible materials**

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

**10.6 Hazardous decomposition products**

Chlorine.

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

Mixture data:.

**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): >2000

ATE - Inhalatory, mists (mg/l): 3.5

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)
troclosene sodium	LD <sub>50</sub>	1436	Mouse	Method not given	
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate	LD <sub>50</sub>	> 5000	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate	LC <sub>50</sub>	0.05 - 0.5 (dust)	Rat	OECD 403 (EU B.2)	4

**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
troclosene sodium	No data available			
adipic acid	No data available			
sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	Not irritant	Rabbit	OECD 404 (EU B.4)	4 hour(s)

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
troclosene sodium	No data available			
adipic acid	No data available			
sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
troclosene sodium	No data available			
adipic acid	No data available			

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sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	No data available			

**Sensitisation**

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
troclosene sodium	No data available			
adipic acid	No data available			
sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
troclosene sodium	No data available			
adipic acid	No data available			
sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	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)
troclosene sodium	No data available		No data available	
adipic acid	No data available		No data available	
sodium toluenesulphonate	No data available		No data available	
sodium N-lauroyl sarcosinate	No evidence for mutagenicity, negative test results	OECD 473	No data available	

Carcinogenicity

Ingredient(s)	Effect
troclosene sodium	No data available
adipic acid	No data available
sodium toluenesulphonate	No data available
sodium N-lauroyl sarcosinate	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
troclosene sodium			No data available				
adipic acid			No data available				
sodium toluenesulphonate			No data available				
sodium N-lauroyl sarcosinate			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
troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate	NOAEL	30	Rat	OECD 407 (EU B.7)	90	

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate		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

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troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate		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
troclosene sodium			No data available					
adipic acid			No data available					
sodium toluenesulphonate			No data available					
sodium N-lauroyl sarcosinate			No data available					

## STOT-single exposure

Ingredient(s)	Affected organ(s)
troclosene sodium	No data available
adipic acid	No data available
sodium toluenesulphonate	No data available
sodium N-lauroyl sarcosinate	No data available

## STOT-repeated exposure

Ingredient(s)	Affected organ(s)
troclosene sodium	No data available
adipic acid	No data available
sodium toluenesulphonate	No data available
sodium N-lauroyl sarcosinate	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)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate	LC <sub>50</sub>	107	<i>Brachydanio rerio</i>	OECD 203 (EU C.1)	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate	EC <sub>50</sub>	29.7	<i>Daphnia magna</i> Straus	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value	Species	Method	Exposure
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		(mg/l)			time (h)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate	E <sub>b</sub> C <sub>50</sub>	39	<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)
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate		No data available			-

## Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
troclosene sodium		No data available			
adipic acid		No data available			
sodium toluenesulphonate		No data available			
sodium N-lauroyl sarcosinate		No data available			

## Aquatic long-term toxicity

## Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate		No data available				

## Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate		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
troclosene sodium		No data available				
adipic acid		No data available				
sodium toluenesulphonate		No data available				
sodium N-lauroyl sarcosinate		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 N-lauroyl sarcosinate		No data available			-	

## Terrestrial toxicity - plants, if available:

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Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sodium N-lauroyl sarcosinate		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium N-lauroyl sarcosinate		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 N-lauroyl sarcosinate		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 N-lauroyl sarcosinate		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
troclosene sodium				OECD 301D	Not readily biodegradable.
adipic acid					No data available
sodium toluenesulphonate					No data available
sodium N-lauroyl sarcosinate			90.9 % in 2 day(s)	OECD 301E	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
troclosene sodium	No data available			
adipic acid	No data available			
sodium toluenesulphonate	No data available			
sodium N-lauroyl sarcosinate	No data available		No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
troclosene sodium	No data available				
adipic acid	No data available				
sodium toluenesulphonate	No data available				
sodium N-lauroyl sarcosinate	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
troclosene sodium	No data available				
adipic acid	No data available				
sodium toluenesulphonate	No data available				
sodium N-lauroyl sarcosinate	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.

## Titan Chlor Plus Tablets

**12.6 Other adverse effects**

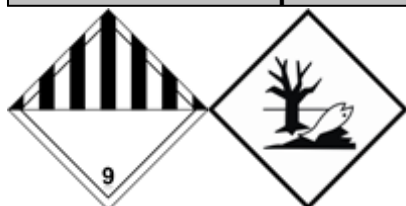
No other adverse effects known.

**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****Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

**14.1 UN number:** 3077

**14.2 UN proper shipping name:**

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

**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 and the IBC Code:** The product is not transported in bulk tankers.

**Other relevant information:****ADR**

**Classification code:** M7

**Tunnel restriction code:** E

**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 dangerous goods packed in small quantities classified under UN3077 or UN3082.

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

- Regulation (EU) No 528/2012 on biocidal products
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No. 648/2004 - Detergents regulation

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

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

anionic surfactants, phosphates  
disinfectants

< 5%

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**

**Titan Chlor Plus Tablets**

*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:** MS1000293**Version:** 02.2**Revision:** 2018-01-25**Reason for revision:**

This data sheet contains changes from the previous version in section(s):, 2, 3, 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:**

- H272 - May intensify fire; oxidiser.
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H330 - Fatal if inhaled.
- 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.

**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**