

**Safety data sheet**  
**according to Regulation (EC) No 1907/2006, Annex II (last amended by**  
**Regulation (EU) 2020/878)**

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

**1.1 Product identifier**

**Swirl Anti Calc Tabs**

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

**Relevant identified uses of the substance or mixture:**

Descaler

**Uses advised against:**

No information available at present.

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



MELITTA Europa GmbH & Co. KG  
 -Geschäftsbereich Haushaltsprodukte-  
 Ringstraße 99  
 32427 Minden  
 Tel.: +49 (0)571 / 86 – 0  
 Fax: +49 (0)571 / 86 – 1560  
 Email: udo.vorfeld@wolf-pvg.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

**1.4 Emergency telephone number**

**Emergency information services / official advisory body:**

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**Telephone number of the company in case of emergencies:**

+49 (0)571 / 86 - 0 (8.00h - 16.00h)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) 1272/2008 (CLP)**

<b>Hazard class</b>	<b>Hazard category</b>	<b>Hazard statement</b>
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.

**2.2 Label elements**

**Labeling according to Regulation (EC) 1272/2008 (CLP)**

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
 Revision date / version: 27.01.2026 / 0003  
 Replacing version dated / version: 09.09.2025 / 0002  
 Valid from: 27.01.2026  
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 Swirl Anti Calc Tabs



**Warning**

H319-Causes serious eye irritation. H335-May cause respiratory irritation. H315-Causes skin irritation. H317-May cause an allergic skin reaction.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.  
 P261-Avoid breathing dust. P271-Use only outdoors or in a well-ventilated area. P280-Wear protective gloves / eye protection / face protection.  
 P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312-Call a POISON CENTRE / doctor if you feel unwell.  
 P405-Store locked up.  
 P501-Dispose of contents / container to an approved waste disposal facility.

Citric acid  
 Maleic acid

**2.3 Other hazards**

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).  
 The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).  
 The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

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

**3.1 Substances**

n.a.

**3.2 Mixtures**

<b>Citric acid</b>	
<b>Registration number (REACH)</b>	01-2119457026-42-XXXX
<b>Index</b>	607-750-00-3
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	201-069-1
<b>CAS</b>	77-92-9
<b>content %</b>	25-<50
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Eye Irrit. 2, H319 STOT SE 3, H335
<b>Maleic acid</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	607-095-00-3
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	203-742-5
<b>CAS</b>	110-16-7
<b>content %</b>	10-<25
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335

<b>Specific Concentration Limits and ATE</b>	Skin Sens. 1, H317: $\geq 0,1\%$ ATE (oral): 1030 mg/kg ATE (dermal): 1100 mg/kg
<b>Sulphamidic acid</b>	
<b>Registration number (REACH)</b>	01-2119846728-23-XXXX
<b>Index</b>	016-026-00-0
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	226-218-8
<b>CAS</b>	5329-14-6
<b>content %</b>	10-<25
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
<b>Sodium carbonate</b>	
<b>Registration number (REACH)</b>	01-2119485498-19-XXXX
<b>Index</b>	011-005-00-2
<b>EINECS, ELINCS, NLP, REACH-IT List-No.</b>	207-838-8
<b>CAS</b>	497-19-8
<b>content %</b>	1-<5
<b>Classification according to Regulation (EC) 1272/2008 (CLP), M-factors</b>	Eye Irrit. 2, H319

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

eyes, reddened

Watering eyes

reddening of the skin

Dermatitis (skin inflammation)

Allergic reaction

coughing

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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Swirl Anti Calc Tabs

### **Suitable extinguishing media**

Adapt to the nature and extent of fire.

Water jet spray/foam/CO2/dry extinguisher

### **Unsuitable extinguishing media**

None known

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

In case of fire the following can develop:

Oxides of carbon

Oxides of sulphur

Oxides of nitrogen

Toxic gases

## **5.3 Advice for firefighters**

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

#### **6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

#### **6.1.2 For emergency responders**

See section 8 for suitable protective equipment and material specifications.

### **6.2 Environmental precautions**

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

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

Pick up mechanically and dispose of according to Section 13.

Flush residue using copious water.

### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

### **7.1 Precautions for safe handling**

#### **7.1.1 General recommendations**

Ensure good ventilation.

Avoid build up of dust.

Avoid contact with eyes or skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

#### **7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

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

Keep out of access to unauthorised individuals.  
 Store product closed and only in original packing.  
 Not to be stored in gangways or stair wells.  
 Do not use acid sensitive materials.  
 Do not store with alkalis.  
 Store at room temperature.  
 Store in a dry place.

**7.3 Specific end use(s)**

No information available at present.

Observe the instructions for good working practice and the recommendations for risk assessment.

Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries,

depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Citric acid						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,44	mg/l	
	Environment - marine		PNEC	0,044	mg/l	
	Environment - sewage treatment plant		PNEC	1000	mg/l	
	Environment - sediment, freshwater		PNEC	34,6	mg/kg dw	
	Environment - sediment, marine		PNEC	3,46	mg/kg dw	
	Environment - soil		PNEC	33,1	mg/kg dw	
	Environment - sediment, freshwater		PNEC	7,52	mg/kg wet weight	
	Environment - sediment, marine		PNEC	0,752	mg/kg wet weight	
	Environment - soil		PNEC	29,2	mg/kg wet weight	

Maleic acid						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,074	mg/l	
	Environment - periodic release		PNEC	0,744	mg/l	
	Environment - sediment, freshwater		PNEC	0,0624	mg/kg	
	Environment - sewage treatment plant		PNEC	3,33	mg/l	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,55	mg/cm2	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,04	mg/cm2	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	58	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	3,3	mg/kg	

**Sulphamidic acid**

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	1,8	mg/l	
	Environment - marine		PNEC	0,18	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,48	mg/l	
	Environment - sewage treatment plant		PNEC	20	mg/l	
	Environment - sediment, freshwater		PNEC	8,36	mg/kg dw	
	Environment - sediment, marine		PNEC	0,84	mg/kg dw	
	Environment - soil		PNEC	5	mg/kg dw	
Consumer	Human - oral	Long term, systemic effects	DNEL	5	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	17,4	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	70,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	10	mg/kg bw/day	

Sodium carbonate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - inhalation	Short term, local effects	DNEL	10	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN ISO 16321-1).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

If applicable

Rubber gloves (EN ISO 374).

Protective gloves made of butyl (EN ISO 374).

Protective nitrile gloves (EN ISO 374).

Protective PVC gloves (EN ISO 374).

Minimum layer thickness in mm:

>= 0,5

Permeation time (penetration time) in minutes:

>=480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.  
Protective hand cream recommended.

#### Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

#### Respiratory protection:

Normally not necessary.

If the workplace limit value is exceeded.

If applicable, filter P2 (EN 143), code colour white

Observe wearing time limitations for respiratory protection equipment.

#### Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Tabs
Colour:	White
Odour:	Neutral
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	There is no information available on this parameter.
Lower explosion limit:	Does not apply to solids.
Upper explosion limit:	Does not apply to solids.
Flash point:	Does not apply to solids.
Auto-ignition temperature:	Does not apply to solids.
Decomposition temperature:	There is no information available on this parameter.
pH:	2,2 (1 %, 20°C)
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Mixable
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	There is no information available on this parameter.
Relative vapour density:	Does not apply to solids.
Particle characteristics:	There is no information available on this parameter.

### 9.2 Other information

No information available at present.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

Avoid contact with strong alkalis (exothermic reaction possible).

### 10.4 Conditions to avoid

See also section 7.

None known

### 10.5 Incompatible materials

See also section 7.

Avoid contact with strong alkalis.

Avoid contact with strong oxidizing agents.

Avoid contact with acid sensitive materials.

### 10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

#### Swirl Anti Calc Tabs

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

#### Citric acid

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	5400	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	11700	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:						No indications of such an effect.
Germ cell mutagenicity:				Rat	OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative

Specific target organ toxicity - single exposure (STOT-SE):						May cause respiratory irritation., STOT SE 3, H335 (10 d)
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	4000	mg/kg	Rat		(10 d)
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	8000	mg/kg	Rat		(10 d)
Aspiration hazard:						No
Symptoms:						vomiting, cornea opacity, coughing, stomach pain, mucous membrane irritation

Maleic acid						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1030	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	ATE	1030	mg/kg			
Acute toxicity, by dermal route:	ATE	1100	mg/kg			
Acute toxicity, by inhalation:	LC50	>720	mg/m3	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Intensively irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Target organ(s): respiratory organs, May cause respiratory irritation.
Symptoms:						breathing difficulties, respiratory distress, eyes, reddened, coughing, headaches, gastrointestinal disturbances, mucous membrane irritation, nausea and vomiting.

Sulphamidic acid						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes

Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:						Not sensitising
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEL	200	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	1000	mg/kg	Rat		(oral, 90 h)
Aspiration hazard:						No
Symptoms:						respiratory distress, coughing, mucous membrane irritation

<b>Sodium carbonate</b>						
<b>Toxicity / effect</b>	<b>Endpoint</b>	<b>Value</b>	<b>Unit</b>	<b>Organism</b>	<b>Test method</b>	<b>Notes</b>
Acute toxicity, by oral route:	LD50	2800	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LD50	2,3	mg/l/2h	Rat	OECD 403 (Acute Inhalation Toxicity)	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:						Not sensitising
Germ cell mutagenicity:					in vitro	Negative
Reproductive toxicity:						Negative
Aspiration hazard:						No



12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.
Other information:							DOC-elimination degree(complexing organic substance)>= 80%/28d: n.a.
Other information:	AOX			%			According to the recipe, contains no AOX.

Citric acid							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	440-706	mg/l	Leuciscus idus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	24h	1535	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC5		640	mg/l	Scenedesmus quadricauda		
12.1. Toxicity to algae:	NOEC/NOEL	8d	425	mg/l	Scenedesmus quadricauda	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	100	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		(-1,8) - (-0,2)				Bioaccumulation is unlikely (LogPow < 1).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:		16h	>10000	mg/l	Pseudomonas putida		
Other information:	ThOD		750	mg/g			
Other information:	COD		728	mg/g			References
Other information:	BOD5		526	mg/l			References
Water solubility:			680	g/l			Soluble20°C

Maleic acid							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Pimephales promelas		

12.1. Toxicity to daphnia:	EC50	48h	42,81	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	17,17	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Kow		0,48				
Other information:	ThOD		830	mg/g			References
Water solubility:			478,8	g/l			20°C

**Sulphamidic acid**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	70,3	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	34d	>=60	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	71,6	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	19	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	18	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	IC50	72h	>29	mg/l	Chlorella vulgaris		
12.1. Toxicity to algae:	ErC50	72h	48	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:							Not relevant for inorganic substances.
12.3. Bioaccumulative potential:	Log Pow		-4,34				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	3h	>200	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Water solubility:			213	g/l			Soluble 20°C

Sodium carbonate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	300	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	200 - 265	mg/l	Daphnia magna		
12.2. Persistence and degradability:							Not relevant for inorganic substances.
12.2. Persistence and degradability:							Product may hydrolyse.
12.3. Bioaccumulative potential:							No bioaccumulation.
12.4. Mobility in soil:							Not relevant for inorganic substances.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:							Soluble

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

20 01 14 Acids

20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Recommended cleaner:

Water

## SECTION 14: Transport information

### General statements

#### Transport by road/by rail (ADR/RID)

14.1. UN number or ID number:

1759

14.2. UN proper shipping name:

UN 1759 CORROSIVE SOLID, N.O.S. (SULPHAMIC ACID, METHYL DIHYDROGEN PHOSPHATE)

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

E

Classification code:

C10

LQ:

5 kg

Transport category:

3

#### Transport by sea (IMDG-code)

14.1. UN number or ID number:

1759



14.2. UN proper shipping name:

UN 1759 CORROSIVE SOLID, N.O.S. (SULPHAMIC ACID, METHYL DIHYDROGEN PHOSPHATE)

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

14.5. Environmental hazards:

Not applicable

Marine Pollutant:

Not applicable

EmS:

F-A, S-B



**Transport by air (IATA)**

14.1. UN number or ID number:

1759

14.2. UN proper shipping name:

UN 1759 Corrosive solid, n.o.s. (SULPHAMIC ACID, METHYL DIHYDROGEN PHOSPHATE)

14.3. Transport hazard class(es):

8

14.4. Packing group:

III

14.5. Environmental hazards:

Not applicable



**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

**14.7. Maritime transport in bulk according to IMO instruments**

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

0 %

**REGULATION (EC) No 648/2004**

less than 5 %

polycarboxylates

phosphates

National rules/regulation for the compliance with maximum quantities with regard to phosphates and or phosphorous compounds must be observed and complied with.

National requirements/regulations on safety and health protection must be applied when using work equipment.

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

**SECTION 16: Other information**

Revised sections:

8

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

**Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):**

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)  
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 Valid from: 27.01.2026  
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 Swirl Anti Calc Tabs

STOT SE 3, H335	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

- Eye Irrit. — Eye irritation
- STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
- Skin Irrit. — Skin irritation
- Skin Sens. — Skin sensitization
- Acute Tox. — Acute toxicity - oral
- Acute Tox. — Acute toxicity - dermal
- Aquatic Chronic — Hazardous to the aquatic environment - chronic

**Key literature references and sources for data:**

- Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
- Guidelines for the preparation of safety data sheets as amended (ECHA).
- Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
- Safety data sheets for the constituent substances.
- ECHA Homepage - Information about chemicals.
- GESTIS Substance Database (Germany).
- German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
- EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
- National Lists of Occupational Exposure Limits for each country as amended.
- Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

**Any abbreviations and acronyms used in this document:**

- acc., acc. to according, according to
- ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
- AOX Adsorbable organic halogen compounds
- approx. approximately
- Art., Art. no. Article number
- ASTM ASTM International (American Society for Testing and Materials)
- ATE Acute Toxicity Estimate
- BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)
- BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
- BCF Bioconcentration factor
- BSEF The International Bromine Council
- CAS Chemical Abstracts Service
- CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
- CMR carcinogenic, mutagenic, reproductive toxic
- DMEL Derived Minimum Effect Level
- DNEL Derived No Effect Level
- DOC Dissolved organic carbon
- e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
- EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
- EC European Community
- ECHA European Chemicals Agency
- ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
- EEC European Economic Community

EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ErCx, EµCx, ErLx (x = 10, 50)	Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc.	et cetera
EU	European Union
EVAL	Ethylene-vinyl alcohol copolymer
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GWP	Global warming potential
Koc	Adsorption coefficient of organic carbon in the soil
Kow	octanol-water partition coefficient
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC (Code)	International Bulk Chemical (Code)
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform Chemical Information Database
IUPAC	International Union for Pure Applied Chemistry
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc	Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow	Logarithm of octanol-water partition coefficient
LQ	Limited Quantities
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
mg/kg bw	mg/kg body weight
mg/kg bw/d, mg/kg bw/day	mg/kg body weight/day
mg/kg dw	mg/kg dry weight
mg/kg wwt	mg/kg wet weight
n.a.	not applicable
n.av.	not available
n.c.	not checked
n.d.a.	no data available
NIOSH	National Institute for Occupational Safety and Health (USA)
NLP	No-longer-Polymer
NOEC, NOEL	No Observed Effect Concentration/Level
OECD	Organisation for Economic Co-operation and Development
org.	organic
OSHA	Occupational Safety and Health Administration (USA)
PBT	persistent, bioaccumulative and toxic
PE	Polyethylene
PNEC	Predicted No Effect Concentration
ppm	parts per million
PVC	Polyvinylchloride
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No.	6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC	Substances of Very High Concern
Tel.	Telephone
TOC	Total organic carbon
UN RTDG	United Nations Recommendations on the Transport of Dangerous Goods
VOC	Volatile organic compounds
vPvB	very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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Swirl Anti Calc Tabs

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