

## Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date: 25.10.2024

Version number 1.5 (replaces version 1.4)

Revision: 25.10.2024

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

#### 1.1 Product identifier

**Trade name: TECEone Descaling tablets**

UFI: 6DV0-M0XT-F00Y-UUKN

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

**Application of the substance / the mixture** Descaling agent

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

**Supplier:**

TECE GmbH  
Hollefeldstraße 57  
D-48282 Emsdetten  
Tel.: +49 25 72 92 80  
E-Mail: info@tece.de

**Manufacturer:**

Oxytabs GmbH  
- Member of the Medea Group -  
Pellwormer Straße 1  
D-24768 Rendsburg  
Germany

**Further information obtainable from:**

Tel.: +49 4331 69620 0  
Fax: +49 4331 69620 22  
E-Mail: info@oxytabs.de

#### 1.4 Emergency telephone number:

Poison Centre Berlin - Emergency call of the Charité  
D-13437 Berlin  
Phone: +49 30 30686 700

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4	H302 Harmful if swallowed.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS07

**Signal word** Warning

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**Hazard-determining components of labelling:**

Maleic acid

**Hazard statements**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P102 Keep out of reach of children.

P280 Wear protective gloves/eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:**

The product does not contain components classified as persistent, bioaccumulative and toxic (PBT) in concentrations of 0.1% or higher.

**vPvB:**

The product does not contain components classified as very persistent and very bioaccumulative (vPvB) in concentrations of 0.1% or higher.

**Determination of endocrine-disrupting properties**

95-14-7 Benzotriazole

List II

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 110-16-7 EINECS: 203-742-5 Reg.nr.: 01-2119488705-25	Maleic acid Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335 Specific concentration limit: Skin Sens. 1; H317: C ≥ 0.1 %	25-<50%
CAS: 5329-14-6 EINECS: 226-218-8 Reg.nr.: 01-2119488633-28	Sulphamidic acid Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	25-<50%
CAS: 95-14-7 EINECS: 202-394-1 Reg.nr.: 01-2119979079-20	Benzotriazole Aquatic Chronic 2, H411; Acute Tox. 4, H302; Eye Irrit. 2, H319	≥0.25-<2.5%

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

**4.1 Description of first aid measures****General information:** No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

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**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

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

No further relevant information available.

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

No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media****Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters****Protective equipment:** No special measures required.**Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

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

Avoid contact with the eyes and skin.

Ensure adequate ventilation.

Wear protective clothing.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose of the material collected according to regulations.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling** Avoid contact with the eyes and skin.**Information about fire and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** Store in a cool and dry place.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep container tightly sealed.**7.3 Specific end use(s)** No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### DNELs

##### 110-16-7 Maleic acid

Dermal	Long-term exposure, local	3 mg/cm <sup>2</sup> (Employees)
Inhalative	Short-term exposure, local	3 mg/m <sup>3</sup> (Employees)
	Short-term exposure, systemic	3 mg/m <sup>3</sup> (Employees)
	Long-term exposure, local	3 mg/m <sup>3</sup> (Employees)
	Long-term exposure, systemic	3 mg/m <sup>3</sup> (Employees)

##### 5329-14-6 Sulphamidic acid

Oral	Long-term exposure, systemic	5 mg/kg (general population) 10 mg/kg (Employees)
	Long-term exposure, systemic	5 mg/kg (general population)
Inhalative	Long-term exposure, systemic	17.4 mg/m <sup>3</sup> (general population) 70.5 mg/m <sup>3</sup> (Employees)

##### 95-14-7 Benzotriazole

Oral	Short-term exposure, systemic	0.54 mg/kg (Consumers)
	Long-term exposure, systemic	0.54 mg/kg (Consumers)
Dermal	Long-term exposure, systemic	1.08 mg/kg (Employees) 0.54 mg/kg (Consumers)
	Long-term exposure, systemic	19 mg/m <sup>3</sup> (Employees) 9.55 mg/m <sup>3</sup> (Consumers)

#### PNECs

##### 110-16-7 Maleic acid

Fresh water	0.1 mg/l
Sea water	0.01 mg/l
Sediment (fresh water)	0.334 mg/kg
Sediment (seawater)	0.0334 mg/kg
Floor	0.0415 mg/kg
Sewage treatment plant	44.6 mg/l

##### 5329-14-6 Sulphamidic acid

Fresh water	1.8 mg/l
Sea water	0.18 mg/l
Sediment (fresh water)	8.36 mg/kg
Sediment (seawater)	0.84 mg/kg
Floor	5 mg/kg
Sewage treatment plant	20 mg/l

##### 95-14-7 Benzotriazole

Fresh water	0.0194 mg/l
Sea water	0.0194 mg/l
Sediment (fresh water)	0.00375 mg/kg
Sediment (seawater)	0.00375 mg/kg
Floor	0.003 mg/kg

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Sewage treatment plant	39.4 mg/l
Sporadic release	0.158 mg/l

**Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

**Appropriate engineering controls** No further data; see section 7.

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

##### General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.

**Respiratory protection:** In case of dust formation, use a particle-filtering dust mask in accordance with EN 149.

**Hand protection** Protective gloves according to EN 374

##### Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.2$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material** >480 minutes (permeation level: 6)

**For the permanent contact gloves made of the following materials are suitable:** Nitrile rubber, NBR

**Eye/face protection** Tight-fitting safety goggles according to EN 166

**Body protection:** Protective work clothing in accordance with EN 13982-1

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

<b>Physical state</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Recognisable
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	Not determined.
<b>Boiling point or initial boiling point and boiling range</b>	Not determined.
<b>Flammability</b>	Not determined.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	Not applicable.
<b>Auto-ignition temperature:</b>	Not determined.
<b>Decomposition temperature:</b>	Not determined.
<b>pH at 20 °C</b>	2.86 (0.1%)
<b>Acid/alkali reserve (J.R. Young et al.):</b>	
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	Not applicable.
<b>Dynamic:</b>	Not applicable.
<b>Solubility</b>	
<b>water:</b>	Soluble.
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>Vapour pressure:</b>	Not applicable.
<b>Density and/or relative density</b>	
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.

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Vapour density	Not applicable.
Particle characteristics	See section 3.
<b>9.2 Other information</b>	
<b>Appearance:</b>	
Form:	Tablets
<b>Important information on protection of health and environment, and on safety.</b>	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
Solids content:	100.0 %
Change in condition	
Evaporation rate	Not applicable.
<b>Information with regard to physical hazard classes</b>	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability** Stable if stored according to specifications.

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

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

**Acute toxicity** Harmful if swallowed.

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**LD/LC50 values relevant for classification:**
**110-16-7 Maleic acid**

Oral	LD50	708 mg/kg (rat)
Dermal	LD50	1,560 mg/kg (rabbit)

**95-14-7 Benzotriazole**

Oral	LD50	500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (rabbit)

**Primary irritant effect:**
**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/irritation** Causes serious eye irritation.

**Respiratory or skin sensitisation** May cause an allergic skin reaction.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT-single exposure** May cause respiratory irritation.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**
**Endocrine disrupting properties**

95-14-7	Benzotriazole	List II
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## SECTION 12: Ecological information

**12.1 Toxicity**
**Aquatic toxicity:**
**110-16-7 Maleic acid**

LC50/96h	75 mg/l (Lepomis macrochirus) (EPA 660/3-75-009)
EC50/48h	42.81 mg/l (Daphnia magna) (OECD 202)
EC50/72h	74.35 mg/l (Pseudokirchnerella subcapitata) (OECD 201)

**5329-14-6 Sulphamidic acid**

LC50/96h	70.3 mg/l (Pimephales promelas)
EC50/3h	>200 mg/l (Activated sludge) (OECD 209)
EC50/48h	71.6 mg/l (Daphnia magna)
EC50/72h	48 mg/l (Desmodesmus subspicatus) (OECD 201)
NOEC/72h	18 mg/l (Desmodesmus subspicatus)

**95-14-7 Benzotriazole**

LC50/96h	180 mg/l (Danio rerio) (OECD 203)
EC50/48h	15.8 mg/l (Daphnia galeata) (OECD 202)
EC50/72h	75 mg/l (Pseudokirchnerella subcapitata) (OECD 201)
NOEC/21d	0.97 mg/l (Daphnia galeata) (OECD 211)
NOEC/72h	1.18 mg/l (Desmodesmus subspicatus) (OECD 201)

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

**12.5 Results of PBT and vPvB assessment**
**PBT:** Not applicable.

**vPvB:** Not applicable.

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**12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.

**12.7 Other adverse effects**

**Remark:** Harmful to fish

**Additional ecological information:**

**General notes:**

Harmful to aquatic organisms

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue**

20 01 29*	detergents containing hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances

**Uncleaned packaging:**

**Recommendation:** Non contaminated packagings may be recycled.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

**14.1 UN number or ID number**

ADR, IMDG, IATA

Not regulated.

**14.2 UN proper shipping name**

ADR, IMDG, IATA

Not regulated.

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class

Not regulated.

**14.4 Packing group**

ADR, IMDG, IATA

Not regulated.

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Not applicable.

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

instruments

Not applicable.

**UN "Model Regulation":**

Not regulated.

**SECTION 15: Regulatory information**

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

Labelling according to Regulation (EC) No 1272/2008 GHS label elements

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**Directive 2012/18/EU****Named dangerous substances - ANNEX I** None of the ingredients is listed.**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**National regulations:**

The product is subject to be labeled according to the prevailing version of the regulations on hazardous substances.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

**Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

**Department issuing SDS:** Department R&D**Contact:** Simone Kühn**Date of previous version:** 23.11.2023**Version number of previous version:** 1.4**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**\* Data changed with respect to previous version.**

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