

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 11.12.2015

Version number 7

Revision: 11.12.2015

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

### 1.1 Product identifier

**Trade name:** Enzytec™ Color Tartaric Acid Decolorant

**Article number:** E3100E01

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

No further relevant information available.

**Application of the substance / the preparation:** In vitro

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

**Manufacturer/Supplier:**

R-Biopharm AG

An der neuen Bergstraße 17

D-64297 Darmstadt

**Further information obtainable from:** FE e-mail: info@r-biopharm.de

**1.4 Emergency telephone number:** FE 0049-6151-8102-0

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R35: Causes severe burns.



Xi; Irritant

R41: Risk of serious damage to eyes.



N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

R31: Contact with acids liberates toxic gas.

### Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

### Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 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** GHS05, GHS09

**Signal word** Danger

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**Hazard-determining components of labelling:**

Hypochloritlösung

**Hazard statements**

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

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

**Additional information:**

EUH031 Contact with acids liberates toxic gas.

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

Hypochloritlösung

vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

**3.2 Chemical characterisation: Mixtures****Description:** Mixture: consisting of the following components.**Dangerous components:**

Hypochloritlösung	PBT C R34 N R50 R31 Met. Corr. 1, H290; Skin Corr. 1B, H314 Aquatic Acute 1, H400	25-50%
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**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:** Immediately remove any clothing soiled by the product.**After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.**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.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

During heating or in case of fire poisonous gases are produced.

### 5.3 Advice for firefighters

**Protective equipment:** Mouth respiratory protective device.

## SECTION 6: Accidental release measures

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

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

### 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### 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

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about fire - and explosion protection:** Keep respiratory protective device available.

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

#### Storage:

**Requirements to be met by storerooms and receptacles:** No special requirements.

**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.

## SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.

### 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.

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

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### 8.2 Exposure controls

#### 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.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not required.

#### Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mmValue for the permeation: Level  $\leq 480$ 

#### As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mmValue for the permeation: Level  $\leq 480$ 

#### Eye protection:



Tightly sealed goggles

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

**pH-value:** Not determined.

#### Change in condition

**Melting point/Melting range:** Undetermined.

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<b>Boiling point/Boiling range:</b>	100 °C
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa
<b>Density at 20 °C:</b>	1.088 g/cm³
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	60.0 %
<b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

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

**10.2 Chemical stability**

**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 toxicological effects**

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

**LD/LC50 values relevant for classification:**

**Hypochloritlösung**

Oral	LD50	5800 mg/kg (mouse)
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**Primary irritant effect:****Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****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** Based on available data, the classification criteria are not met.**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.

### SECTION 12: Ecological information

**12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**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.**Ecotoxicological effects:****Remark:** Very toxic for fish**Additional ecological information:****General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

Very toxic for aquatic organisms

**12.5 Results of PBT and vPvB assessment****PBT:**

Hypochloritlösung

**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

### 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.

Disposal must be made according to official regulations.

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

**14.1 UN-Number**  
**ADR, IMDG, IATA**

UN1760

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**14.2 UN proper shipping name****ADR**1760 CORROSIVE LIQUID, N.O.S.  
(HYPOCHLORITE SOLUTION),  
ENVIRONMENTALLY HAZARDOUS**IMDG**

1791 HYPOCHLORITLÖSUNG

CORROSIVE LIQUID, N.O.S. solution, MARINE  
POLLUTANT**IATA**

Corrosive liquids, n.o.s. (Hypochlorite solutions)

**14.3 Transport hazard class(es)****ADR****Class**

8 (C9) Corrosive substances.

**Label**

8

**IMDG****Class**

8 Corrosive substances.

**Label**

8

**IATA****Class**

8 Corrosive substances.

**Label**

8

**14.4 Packing group****ADR, IMDG, IATA**

II

**14.5 Environmental hazards:**Product contains environmentally hazardous  
substances: sodium hypochlorite, solution**Marine pollutant:**

Yes

**Special marking (ADR):**

Symbol (fish and tree)

Symbol (fish and tree)

**14.6 Special precautions for user**

Warning: Corrosive substances.

**Danger code (Kemler):**

80

**EMS Number:**

F-A,S-B

**Segregation groups**

Hypochlorites

**Stowage Category**

B

**Stowage Code**

SW2 Clear of living quarters.

**14.7 Transport in bulk according to Annex II  
of Marpol and the IBC Code**

Not applicable.

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**Transport/Additional information:****ADR****Limited quantities (LQ)**

1L

**Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**Transport category**

2

**Tunnel restriction code**

E

**IMDG****Limited quantities (LQ)**

1L

**Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**UN "Model Regulation":**UN 1760 CORROSIVE LIQUID, N.O.S.  
(HYPOCHLORITE SOLUTION), 8, II,  
ENVIRONMENTALLY HAZARDOUS**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2012/18/EU****Named dangerous substances - ANNEX I** Hypochloritlösung**Seveso category** E1 Hazardous to the Aquatic Environment**Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t**National regulations:****Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**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**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

R31 Contact with acids liberates toxic gas.

R34 Causes burns.

R50 Very toxic to aquatic organisms.

**Department issuing MSDS:** QS 0049-6151-8102-0**Contact:** QS 0049-6151-8102-0**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport 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

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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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Met. Corr.1: Corrosive to metals, Hazard Category 1  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

**\* Data compared to the previous version altered.**

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