

## SAFETY INFORMATION

**Product name:** hsa-miR-499-5p miREIA  
**Catalogue number:** RDM0016H  
**Characteristics:** Enzyme immunoassay for miRNA quantification isolated from a patient sample.  
**Intended use:** For professional use only. Users should have a thorough understanding of the IFU prior to their use of this kit.

**Manufacturer:** BioVendor – Laboratorní medicína a.s.  
**Registered office:** Karásek 1767/1, 621 00 Brno, Czech republic  
**Company ID:** 63471507

Kit Components	Contents hazardous substance
DNA Probe Conc. (50x)	ProClin 300 < 0,025%
Master Standard	No
Quality Control	No
Antibody Coated Microtiter Strips	No
Streptavidin-HRP Conjugate	StabilZyme™ HRP Conjugate Stabilizer
RNase Inhibitor Conc. (500x)	Ethanol < 30%
Dilution Buffer	ProClin 300 < 0,025%
Wash Solution Conc. (10x)	No
Substrate Solution	No
Stop Solution	Sulphuric Acid < 5%

Safety Data Sheets in accordance with the current (EC/EU) Regulations as amended are attached.

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifier**

**Trade name:** ProClin 300 < 0.025 %

**Other names:**

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) in a concentration of 0.0025 - < 0.0250 %

**UFI:** Not apply.

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

No use descriptors (LCS, SU, PC, PROC, ERC, AC, TF categories) of the substance or mixture are available.

**Application of the substance / the mixture:** Preservative agent for laboratory chemicals.

**Uses advised against:** Any other than the above mentioned.

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

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1

621 00 Brno

Czech Republic

Identification number: 63471507

Tel: +420 549 124 185

E-mail: [info@biovendor.com](mailto:info@biovendor.com)

Website: [www.biovendor.com](http://www.biovendor.com)

Further information obtainable from:

Ing. Karel Královec, Studio2K, Czech Republic

Phone: +420 777 145 808,

Email: [bl@studio2k.cz](mailto:bl@studio2k.cz),

Website: [www.bezpecnostni-listy.eu](http://www.bezpecnostni-listy.eu)

**1.4 Emergency telephone number**

European Chemicals Agency. National helpdesks contact details

<https://echa.europa.eu/support/helpdesks>

Links to Poison Centers and Clinical Toxicologists all over the World:

<https://www.eapcct.org/index.php?page=links>

**SECTION 2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

The product is classified as dangerous in the terms of the Regulation (EC) No 1272/2008 (CLP).

Skin Sens. 1 H317 May cause an allergic skin reaction.

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

**Hazard-determining components of labelling:**

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

**Hazard statements:**

- H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements:**

- P261 Avoid breathing mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.

**Additional information:** Void.

**Labelling of packages where the contents do not exceed 125 ml**

Hazard pictograms:



GHS07

**Signal word:** Warning

**Hazard-determining components of labelling:**

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

**Hazard statements:**

- H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects

**Precautionary statements:**

- P261 Avoid breathing mist/vapours/spray.  
P280 Wear protective gloves.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:**

The mixture does not contain substances classified at the date of preparation of the safety data sheet as PBT according to Regulation (EC) No 1907/2006 (REACH) in a concentration equal to or greater than 0.1 % by weight.

**vPvB:**

The mixture does not contain substances classified at the date of preparation of the safety data sheet as vPvB according to Regulation (EC) No 1907/2006 (REACH) in a concentration equal to or greater than 0.1 % by weight.





**Determination of endocrine-disrupting properties**

The mixture does not contain substances that have been identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**3.1 Mixtures**

**Description:** Mixture of substances listed below with nonhazardous additions.

<b>Dangerous components:</b>		
CAS: 55965-84-9 EC: 611-341-5 INDEX: 613-167-00-5	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)  Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330  Skin Corr. 1C, H314; Eye Dam. 1, H318  Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100)  Skin Sens. 1A, H317 EUH071 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 % Note B	0.0025 ≤ 0.025 %

**Notes:**

Note B:

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations.

In Part 3 entries with Note B have a general designation of the following type: 'nitric acid .. %'.

In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

**SVHC:**

The product does not contain substances classified as of the date of preparation of the safety data sheet as PBT or vPvB and stated in the Candidate list of substances producing very high concerns for Appendix XIV of Regulation (EC) No 1907/2006 (REACH).

**Regulation (EC) No 648/2004 on detergents / Labelling for contents:** Not apply.

**Additional information:**

The substances named in this section are given with their actual, appropriate classification!  
For substances that are listed in appendix VI, table 3 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. 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:**

In case of doubt, appearance of symptoms or upon any problems, seek medical help and present this safety data sheet or the product label.

Never pour anything into the mouth of an unconscious person!

Personal protection for the First Aider.

Immediately remove any clothing soiled by the product.

**After inhalation:**

Remove person from danger area.

Take care of fresh air supply and seek medical assistance upon subsequent or lasting problems.

**After skin contact:**

Wash the affected skin with plenty of water. Upon skin irritation or other problems, consult further procedure with an expert physician.

**After eye contact:**

Open the eye lids, possibly remove contact lenses, and rinse the affected eyes thoroughly with clean flowing water. Upon skin irritation or other problems, consult further procedure with an expert physician.

**After swallowing:**

Thoroughly rinse the mouth with water and do not cause vomiting. Put the affected person in warm and calm conditions. Seek medical assistance immediately.

Information for doctor: Symptomatic treatment.

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

Possible toxicological effects resulting from the classification are stated in Section 11. No further relevant information is available.

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

In case of ingestion seek medical help immediately.

For special medical advice, contact the Toxicology Information Centre.

**SECTION 5 FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing agents:**

No extinguishing substances are determined, the mixture is not flammable. Use fire extinguishing methods suitable to surrounding conditions.

**For safety reasons unsuitable extinguishing agents:** No unsuitable extinguishing materials are known.

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

No special dangers are determined.

Hazardous combustion products: Dangerous decomposition is not anticipated.

**5.3 Advice for firefighters****Protective equipment:**

No special measures required.

According to size of fire.

Corresponding protective insulation breathing apparatus and overpressure counter-chemical protective clothing.

#### 5.4 Further information

No relevant information is available.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

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

Respect the instructions set forth in Sections 7 and 8 of the safety data sheet.

**For non-emergency personnel:**

Ensure adequate ventilation.

Use personal protective equipment.

Avoid contact with eyes and skin.

Prevent the possibility of slipping on the spilled product.

Prevent entry of unauthorised persons.

**For emergency responders:** See section 8 for suitable protective equipment and material specification.

#### 6.2 Environmental precautions

The product is classified as dangerous for the environment.

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) and place into suitable and marked vessels.

Possibly wipe the leaked product with a paper towel and place it into a waste vessel.

Thoroughly wash the affected spot and the tools used with a suitable detergent, it is possible to use a larger quantity of water.

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

In addition to the information provided in this section, important information is also provided in Sections 6 and 8.

**Information about fire - and explosion protection:**

No special measures required.

Respect general regulations on fire prevention.

**Handling:**

Before use, it is necessary to familiarize oneself with the contents of Sections 2, 6, 8, and 11 of the safety data sheet.

Ensure good ventilation.

Prevent formation of aerosols.

Use personal protective equipment.

Avoid contact with eyes and skin.

Use working methods according to operating instructions.

Observe directions on label and instructions for use.

General hygiene measures for the handling of chemicals are applicable.

Before a pause and after ending the work, wash the hands and take off the polluted working clothes. Keep these clothes separately.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.  
 Do not eat, drink, smoke, or snuff during use.

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

#### Storage

##### Requirements to be met by storerooms and receptacles:

Secure impermeable floors against the liquids.  
 Store only in unopened original receptacles.

**Information about storage in one common storage facility:** Store away from foodstuffs.

##### Further information about storage conditions:

Store in a well ventilated place.  
 Store in a dry and cool place.  
 Keep containers tightly sealed.  
 Protect from exposure to the light.  
 Protect from frost.  
 Protect containers from physical damage.  
 Store under lock and key and with access restricted to technical experts or their assistants only.  
 Keep out of reach of children.

**Recommended storage temperature:** +2 °C to +8 °C.

### 7.3 Specific end use(s)

The product is intended only for professional use.  
 Specific use is stated in the manual for use on the product packaging label or in the product documentation.

## 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:		
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>		
Oral	DNEL - Long term exposure, systemic effects	0.09 mg/kg/d (consumers)
	DNEL - Short term exposure, systemic effects	0.11 mg/kg/d (consumers)
Inhalative	DNEL - Long term exposure, local effects	0.02 mg/m <sup>3</sup> (consumers)
		0.02 mg/m <sup>3</sup> (workers)
	DNEL - Short term exposure, systemic effects	0.04 mg/m <sup>3</sup> (consumers)
		0.04 mg/m <sup>3</sup> (workers)



PNECs:	
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
PNEC - Freshwater	0.00339 mg/l
PNEC - Marine water	0.00339 mg/l
PNEC - Sewage treatment plant	0.23 mg/l
PNEC - Sediment, freshwater	0.027 mg/kg
PNEC - Sediment, marine water	0.027 mg/kg
PNEC - Soil	0.01 mg/kg
PNEC - Water (sporadic release)	0.00339 mg/l

### Ingredients with biological limit values:

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

## 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 WEL or IOEL 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 protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages and feed.  
 Do not eat, drink, smoke or sniff while working.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.

#### a) Eye/face protection:



Not required during regular use.  
 Alternatively, use closed safety glasses (EN 166).

#### b) Skin protection



#### Body protection

As needed, use the working protective clothes with long sleeves, possibly overalls, and protective working footwear.



#### Hand protection

Protective gloves (EN ISO 374-1).  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Preventive skin protection by use of skin-protecting agents is recommended.



**Material of gloves:**

Nitrile rubber gloves (EN ISO 374-1).

Recommended thickness of the material:  $\geq 0.11$  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.

Glove material selection was performed based on the glove producers' data and information on substances contained in the product.

**Penetration time of glove material:**

$\geq 480$  minutes (EN 16523-1).

No tests have been performed, glove resistance must be tested before use.

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

**c) Respiratory protection:**



Unnecessary during regular use.

In case of forming of vapours or aerosol, use a suitable breathing mask with a filter (EN 14387+A1).

Observe wearing time limitations for respiratory protection equipment.

**Recommended filter device for short term use:** Filter ABEK (EN 14387+A1).

**d) Thermal hazards:** Not applicable.

**8.2.3 Environmental exposure controls:**

Adhere to usual measures for environmental protection, see Section 6.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

**General Information**

Physical state:	Fluid.
Colour:	Not determined.
Odour:	Not determined.
Melting point/freezing point:	Not determined.
Boiling point or initial boiling point and boiling range:	Not determined.
Flammability:	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Ignition temperature:	Not applicable.
Decomposition temperature:	Not determined.
pH:	Not determined.
Viscosity	
Kinematic viscosity:	Not determined.
Dynamic viscosity:	Not determined.
Solubility	
water:	Not determined.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density:	Not determined.
Relative density:	Not determined.
Vapour density:	Not determined.
Relative gas density:	Not determined.

### 9.2 Other information

#### Important information on protection of health and environment, and on safety.

Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Solvent content VOC (2010/75/EC):	Not apply.
Oxidising properties:	Not determined.
Evaporation rate:	Not determined.
Relative evaporation rate:	Not determined.

#### Information with regard to physical hazard classes

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.
Additional information:	No relevant information available.

## SECTION 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

Upon adhering to the determined regulations of storage and use, no reactivity is expected (see Section 7).

### 10.2 Chemical stability

Upon adhering to the determined regulations of storage and use the product is stable (see Section 7).

### 10.3 Possibility of hazardous reactions

No dangerous reactions known.

### 10.4 Conditions to avoid.

Prevent contact with incompatible materials.  
Protect against high temperatures.  
Protect against frost.

### 10.5 Incompatible materials

Strong oxidizing and reducing agents  
Amines.  
Mercaptans.

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

**SECTION 11 TOXICOLOGICAL INFORMATION**

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

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

Relevant toxicological values for classification:		
<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>		
Oral	LD50	53 mg/kg (rat)
Dermal	LD50	87 mg/kg (rabbit)
Inhalative	LC50/4 h	0.33 mg/l (rat)

**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**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:** 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.

**Additional toxicological information:** No relevant information is available.

**Acute effects:** No acute effects are known.

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

**CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):** No CMR effects are known.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

None of the ingredients is listed.

**Other information:** No further information is available.

**SECTION 12 ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Aquatic toxicity:**

Hazardous to the aquatic environment - Aquatic Chronic 3.

55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	
LC50/96 h	0.19 mg/l (fish) <i>Oncorhynchus mykiss</i>
EC50/48 h	0.16 mg/l (daphnia) <i>Daphnia magna</i>
EC50/72 h	> 0.037 mg/l (algae) <i>Pseudokirchneriella subcapitata</i>
EC50/16 h	5.7 mg/l (bacteria) <i>Pseudomonas putida</i>

**12.2 Persistence and degradability**

Ingredients are not expected to be resistant to biodegradation.

<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
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Biodegradability in water	< 50 %/10 d the substance is not readily biodegradable
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**Behaviour in waste water treatment plants:** No relevant information is available.

**12.3 Bioaccumulative potential**

<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
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log Pow	0.401 measured value, bioaccumulation is not expected
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**Bioconcentration factor (BCF):**

<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
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BCF	3.6 calculated value
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**12.4 Mobility in soil**

<b>55965-84-9 Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)</b>	
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log Koc	28 estimated value
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**12.5 Results of PBT and vPvB assessment**

The product does not contain substances classified as PBT or vPvB and included in the list of substances subject to authorization (Annex XIV of EP and R Regulation No 1907/2006, as amended).

**PBT:** No relevant information is available.

**vPvB:** No relevant information is available.

**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects**

**Remark:** Harmful to fish.

**Additional ecological information**

**AOX-indication:** No relevant information is available.

**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.

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

Harmful to aquatic organisms.

<b>SECTION 13 DISPOSAL CONSIDERATIONS</b>
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**13.1 Waste treatment methods**
**Recommendation:**

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

Remove product residues according to the corresponding local directives in the adequate equipment as hazardous waste. E.g. put away at suitable waste dumps or remove in suitable waste incineration plants.

**Waste disposal key:**

The catalogue numbers with the asterisk (\*) mark hazardous waste (N), numbers without the asterisk mark other waste (O).

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. (2001/118/EC, 2001/119/EC, 2001/573/EC, 2014/955/EU).

European waste catalogue and hazardous properties of waste:	
18 01 06*	chemicals consisting of or containing hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances
15 01 02	plastic packaging

**Uncleaned packaging**

**Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

Non contaminated packagings may be reused.

Non contaminated packagings may be recycled.

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

Empty container completely. Dispose of hazardous waste pursuant to corresponding local directives in adequate equipment. Put other waste away according to the material type into collection vessels for sorted waste.

Hand over possible empty packaging to an authorised organisation, which is entitled to their disposal.

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

**Regulations:**

Commission Decision No 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.

Commission Regulation (EU) No 1357/2014, replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, as amended.

**SECTION 14 TRANSPORT INFORMATION**

**14.1 UN number or ID number**

ADR, ADN IMDG, IATA: Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA: Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA Class: Void

**14.4 Packaging group**

ADR, IMDG, IATA: Void

**14.5 Environmental hazards**

Marine pollutant: No

**14.6 Special precautions for user**

Unless specified otherwise, general measures for safe transport must be followed

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

Not applicable

**Transport/Additional information:** Non-dangerous material to Transport Regulations  
**UN "Model Regulation":** Void**SECTION 15 INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2004/42/EC of the European Parliament and the Council:** Does not apply.**Named dangerous substances - ANNEX I:** None of the ingredients is listed.**REGULATION (EC) No 1907/2006 ANNEX XVII:** Conditions of restriction for the group No 3.**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.**Legal regulations of the European Community:**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, as amended.

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC, as amended.

COMMISSION REGULATION (EU) amending for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures: 2016/918 (8. ATP from 1.2.2018), 2016/1179 (9. ATP from 1.3.2018), 2017/776 (10. ATP from 1.12.2018), 2018/669 (11. ATP from 1.12.2019), 2019/521 (12. ATP from 17.10.2020), 2018/1480 (13. ATP from 1.5.2020).

COMMISSION DELEGATED REGULATION (EU) amending for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures:

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has not been carried out.



**SECTION 16 OTHER INFORMATION****Warning:**

The safety data sheet contains data needed for securing safety and health protection during work and environmental protection. The stated data correspond to the current state of knowledge and experience and is in accordance with valid legal regulations. It cannot be deemed as a guarantee of the properties, suitability, and usefulness of the product for specific application and therefore no contractual legal relationships are hereby created.

The safety data sheet is the property of the physical or legal entity stated in Section 1 and is protected by copy-right. All copying, distribution or sales without the consent of the owner is forbidden.

**Relevant phrases:**

H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH071 Corrosive to the respiratory tract.

**Training hints:**

Pursuant to article No 35 of the European Parliament and Council Regulation (ES) No 1907/2006, the employer must allow employees or their representatives access to information from the safety data sheet of the substance or preparation, which the employees use or to the effects of which they may be exposed during their work.

Physical entities performed individual activities within the scope of handling of this hazardous product are trained and regularly, at least once a year, retrained.

Product information sources: safety data sheet, product or technical information, safety instructions, and other expert documents for the product, issued by the supplier.

**Recommended restriction of use:**

The product is designed only for professional purposes. It must not be used in households. The product can only be handled by a person older than 18 years, who is sufficiently informed about the work procedures, hazardous properties of the product, and also about the necessary safety measures.

The product is to be used only for the purpose, for which it is designed. It is up to the user's responsibility to adhere to the product usage conditions and to respect the safety instructions for health and environmental protection.

Further information: This product must be stored, sold, and used in accordance with valid hygienic regulations.

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

Skin sensitisation	Calculation
Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	method

**First issue of SDS:** 30.09.2022

**Internal code formula:** 1670.003

Documents used to prepare SDS:

The original documents provided by the supplier or manufacturer related to the product (mixture), eventually to individual substances contained.

**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)  
VOC: Volatile Organic Compounds (USA, EU)  
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  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Corr. 1C: Skin corrosion/irritation – Category 1C  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1A: Skin sensitisation – Category 1A  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**Sources:**

The safety data sheet was prepared in accordance with the European Parliament and Council Regulation (EC) No 1272/2008 (CLP) and according to the requirements of the European Parliament and Council Regulation (EC) No 1907/2006 about the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency - head IV, article 31, appendix II (instructions for safety data sheet compiling), as amended by the Commission Regulation (EU) No 2020/878 of 18 June 2020.

The missing ecotoxicology and toxicology data was obtained from the ESIS (European chemical Substances Information System), specifically from the IUCLID (International Uniform Chemical Information Database). As needed, data from further available chemical databases was used.

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**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifier**

**Trade name:** StabilZyme™ HRP Conjugate Stabilizer

**Code:** SZ02

**Product form:** mixture

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

**Relevant identified uses Use of the substance/mixture**

Use of the substance/mixture: For further manufacture

**Uses advised against**

No additional information available

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

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1

621 00 Brno

Czech Republic

Identification number: 63471507

Tel: +420 549 124 185

E-mail: [info@biovendor.com](mailto:info@biovendor.com)

Website: [www.biovendor.com](http://www.biovendor.com)

**1.4 Emergency telephone number**

European Chemicals Agency. National helpdesks contact details

<https://echa.europa.eu/support/helpdesks>

Links to Poison Centers and Clinical Toxicologists all over the World:

<https://www.eapcct.org/index.php?page=links>

**SECTION 2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317

Full text of H statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

**2.2 Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



GHS07

**Signal word (CLP):** Warning

**Hazardous ingredients:**

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H isothiazol-3-one [EC no. 220-239-6] (3:1); 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6]

**Hazard statements:**

H317 May cause an allergic skin reaction

**Precautionary statements:**

P261 Avoid breathing mist, vapours

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear eye protection, protective gloves, protective clothing

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

P321 Specific treatment (see supplemental first aid instruction on this label)

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

P362+P364 Take off contaminated clothing and wash it before reuse

P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

**EUH-statements:**

EUH210 Safety data sheet available on request

EUH208 Contains CMIT/MIT. May produce an allergic reaction

**2.3 Other hazards**

Other hazards not contributing to the classification: None under normal conditions.

<b>SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS</b>
---

**3.1 Substance**

Not applicable

**3.2 Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CMIT/MIT: Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220239-6] (3:1)	(CAS-No.) 55965-84-9 (EC Index-No.) 613-167-00-5	0.0024	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Inhalation), H330 Eye Dam. 1, H318
2-methyl-2H-isothiazol-3-one [EC no. 220-239-6]	(CAS-No.) 2682-20-4 (EC Index-No.) 613-167-00-5	0.0126	Skin Corr. 1C, H314 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

**Specific concentration limits:**

Name	Product identifier	Specific concentration limits: CLP
CMIT/MIT: Mixture, 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS-No.) 55965-84-9 (EC Index-No.) 613-167-00-5	(C >= 0.0015) Skin Sens. 1A, H317 (C >= 0.06%) Eye Dam. 1, H318

2-methyl-2H-isothiazol-3-one [EC no. 220-239-6]	(CAS-No.) 2682-20-4 (EC Index-No.) 613-167-00-5	(C >= 0.6) Skin Corr. 1C, H314
---	--	-----------------------------------

Full text of R- and H-statements: see section 16

**SECTION 4 FIRST AID MEASURES****4.1 Description of first aid measures****First-aid measures general:**

If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person

**First-aid measures after inhalation:** IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing

**First-aid measures after skin contact:** IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

**First-aid measures after eye contact:**

IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

**First-aid measures after ingestion:**

IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

**4.2 Most important symptoms and effects, both acute and delayed****Symptoms/effects:**

May cause an allergic skin reaction.

**Symptoms/effects after inhalation:**

May cause respiratory irritation.

**Symptoms/effects after skin contact:**

May cause an allergic skin reaction.

**Symptoms/effects after eye contact:**

Direct contact with eyes is likely to be irritating.

**Symptoms/effects after ingestion:**

May cause gastrointestinal irritation.

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

No additional information available

**SECTION 5 FIREFIGHTING MEASURES****5.1 Extinguishing media**

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**5.2 Special hazards arising from the substance or mixture****Fire hazard:**

No data available.

**Explosion hazard:**

No data available.

**5.3 Advice for firefighters****Firefighting instructions:**

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical  
Do not dispose of fire-fighting water in the environment.

**Protection during firefighting:**

Do not enter fire area without proper protective equipment, including respiratory protection.

**SECTION 6 ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment, and emergency procedures**

General measures: Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

**6.1.1 For non-emergency personnel**

Protective equipment: Wear Protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

**6.1.2 For emergency responders**

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

**6.2 Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for cleaning up**

Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water.

**6.4 Reference to other sections**

No additional information available

**SECTION 7 HANDLING AND STORAGE****7.1 Precautions for safe handling**

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition - No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions: Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Avoid elevated temperatures.

Storage temperature: Refrigerated or room temperature

**7.3 Specific end use(s)**

No additional information available

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

<b>Mixture</b> , 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) <b>(CAS-No. 55965-84-9)</b>		
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup> inhalable fraction
Germany	TRGS 900 Limitation of exposure peaks (mg/m <sup>3</sup> )	0.4 mg/m <sup>3</sup> inhalable fraction

#### 8.2 Exposure controls

##### 8.2.1 Appropriate engineering controls:

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

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

Gloves. Protective goggles. Protective clothing.

##### a) Eye protection:



Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles. END 166.

##### b) Skin protection



##### Body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure



##### Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM

F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

##### c) Respiratory protection:



Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. EN 250.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Physical state:	Liquid
Appearance:	Clear.
Colour:	Amber.
Odour:	None.
Odour threshold:	No data available
pH:	Neutral
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	100 °C
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapor pressure:	No data available
Relative vapor density at 20 °C:	No data available
Relative density:	No data available
Solubility:	Water: Complete
Log Pow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	Product is not explosive.
Oxidising properties:	Not an Oxidizer.
Explosive limits:	No data available

**9.2 Other information**

No additional information available

**SECTION 10 STABILITY AND REACTIVITY****10.1 Reactivity**

No dangerous reactions known under normal conditions of use.

**10.2 Chemical stability**

Stable under recommended handling and storage conditions (see section 7).

**10.3 Possibility of hazardous reactions**

None known.

**10.4 Conditions to avoid**

None known.

**10.5 Incompatible materials**

None known.

**10.6 Hazardous decomposition products**

Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides. Other toxic fumes.



### SECTION 11 TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute toxicity:	Not classified
Skin corrosion/irritation:	Not classified pH: Neutral
Serious eye damage/irritation:	Not classified pH: Neutral
Respiratory or skin sensitisation:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

### SECTION 12 ECOLOGICAL INFORMATION

#### 12.1 Toxicity

**Ecology - general:** No data available.

<b>Mixture</b> , 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H - isothiazol-3-one [EC no. 220-239-6] (3:1) <b>(CAS-No. 55965-84-9)</b>	
LC50 fish 1	0.19 mg/l Salmo Gairdneri
EC50 Daphnia 1	0.028 mg/l Crassostrea virg.
EC50 72h algae (1)	0.018 mg/l Selenastrum cap.

#### 12.2 Persistence and degradability

<b>Mixture</b> , 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H - isothiazol-3-one [EC no. 220-239-6] (3:1) <b>(CAS-No. 55965-84-9)</b>	
Persistence and degradability	Not rapidly degradable

#### 12.3 Bioaccumulative potential

<b>Mixture</b> , 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H - isothiazol-3-one [EC no. 220-239-6] (3:1) <b>(CAS-No. 55965-84-9)</b>	
Log Kow	> 5 Significant bioaccumulation

#### 12.4 Mobility in soil

No additional information available

#### 12.5 Results of PBT and vPvB assessment

No additional information available

#### 12.6 Other adverse effects

No additional information available

### SECTION 13 DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods

**Waste treatment methods:** Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

**Waste disposal recommendations:**

Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

**SECTION 14 TRANSPORT INFORMATION****14.1 UN number**

Not hazardous for transport

**14.2 UN proper shipping name**

**Proper Shipping Name (ADR):** Not applicable

**Proper Shipping Name (IMDG):** Not applicable

**Proper Shipping Name (IATA):** Not applicable

**Proper Shipping Name (ADN):** Not applicable

**Proper Shipping Name (RID):** Not applicable

**14.3 Transport hazard class(es)**

**ADR** Transport hazard class(es) (ADR): Not applicable

**IMDG** Transport hazard class(es) (IMDG): Not applicable

**IATA** Transport hazard class(es) (IATA): Not applicable

**ADN** Transport hazard class(es) (ADN): Not applicable

**RID** Transport hazard class(es) (RID): Not applicable

**14.4 Packaging group**

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

**14.5 Environmental hazards**

Dangerous for the environment: No

Marine pollutant : No

Other information: No supplementary information available

**14.6 Special precautions for user****Overland transport**

Not applicable

**Transport by sea**

Not applicable

**Air transport**

Not applicable

**Inland waterway transport**

Carriage prohibited (ADN): No

Not subject to AND: No

**Rail transport**

Carriage prohibited (RID): No

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15 REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1 EU-Regulations**

Contains no substances with Annex XVII restrictions StabilZyme® HRP Conjugate Stabilizer is not on the REACH Candidate List Contains no substance on the REACH Candidate List

Contains no REACH Annex XIV substances.

**15.1.2 National regulations**

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

**Germany**

VwVwS Annex reference: Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)  
Control Act - 12.BImSchV

**15.2 Chemical Safety Assessment**

No additional information available

**SECTION 16 OTHER INFORMATION****Warning:**

The safety data sheet contains data needed for securing safety and health protection during work and environmental protection. The stated data correspond to the current state of knowledge and experience and is in accordance with valid legal regulations. It cannot be deemed as a guarantee of the properties, suitability, and usefulness of the product for specific application and therefore no contractual legal relationships are hereby created.

The safety data sheet is the property of the physical or legal entity stated in Section 1 and is protected by copy-right. All copying, distribution or sales without the consent of the owner is forbidden.

**Relevant phrases:**

H301 Toxic if swallowed  
H310 Toxic in contact with skin  
H314 Causes severe skin burns and eye damage  
H317 May cause an allergic skin reaction  
H318 Causes serious eye damage  
H330 Fatal if inhaled  
H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects  
EUH208 Contains . May produce an allergic reaction  
EUH210 Safety data sheet available on request

**Training hints:**

Pursuant to article No 35 of the European Parliament and Council Regulation (ES) No 1907/2006, the employer must allow employees or their representatives access to information from the safety data sheet of the substance or preparation, which the employees use or to the effects of which they may be exposed during their work.

Physical entities performed individual activities within the scope of handling of this hazardous product are trained and regularly, at least once a year, retrained.

Product information sources: safety data sheet, product or technical information, safety instructions, and other expert documents for the product, issued by the supplier.

**Recommended restriction of use:**

The product is designed only for professional purposes. It must not be used in households. The product can only be handled by a person older than 18 years, who is sufficiently informed about the work procedures, hazardous properties of the product, and also about the necessary safety measures.

The product is to be used only for the purpose, for which it is designed. It is up to the user's responsibility to adhere to the product usage conditions and to respect the safety instructions for health and environmental protection.

Further information: This product must be stored, sold, and used in accordance with valid hygienic regulations.

<b>Classification according to Regulation (EC) No 1272/2008:</b>	
Skin Sens. 1	Calculation method

**First issue of SDS:** 09.12.2022

Documents used to prepare SDS:

The original documents provided by the supplier or manufacturer related to the product (mixture), eventually to individual substances contained.

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifier**

**Component name:** Ethanol < 30 %

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

Identified uses: Laboratory chemicals, Manufacture of substances

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

BioVendor - Laboratorní medicína a.s.  
Karásek 1767/1  
621 00 Brno  
Czech Republic  
Identification number: 63471507  
Tel: +420 549 124 185  
E-mail: [info@biovendor.com](mailto:info@biovendor.com)  
Website: [www.biovendor.com](http://www.biovendor.com)

**1.4 Emergency telephone number**

European Chemicals Agency. National helpdesks contact details  
<https://echa.europa.eu/support/helpdesks>  
Links to Poison Centers and Clinical Toxicologists all over the World:  
<https://www.epcct.org/index.php?page=links>

**SECTION 2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

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

Flammable liquids (Category 3), H226

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

Labelling according Regulation (EC) No 1272/2008.

**Hazard pictogram:**



GHS02

**Signal word:** Warning

**Hazard statement(s):**

H226 Flammable liquid and vapor.

**Precautionary statement(s):**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

**Supplemental Hazard Statements:**  
none

**Reduced Labeling (<= 125 ml)**

**Hazard pictogram**



GHS02

**Signal Word:** Warning

**Hazard statement(s):**  
none

**Precautionary statement(s):**  
none

**Supplemental Hazard Statements:**  
none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Mixtures

Component	Classification	Concentration
<b>Ethanol</b>		
CAS-No. 64-17-5 EC-No. 200-578-6 Index-No. 603-002-00-5 Registration number 01-2119457610-43-XXXX	Flam. Liq. 2; Eye Irrit. 2; H225, H319 Concentration limits: >= 50 % Eye Irrit. 2A, H319;	>= 20 - < 30%

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice**

Show this material safety data sheet to the doctor in attendance.

**If inhaled**

After inhalation: fresh air.

**In case of skin contact**

Take off immediately all contaminated clothing. Rinse skin with water/ shower.

**In case of eye contact**

Rinse out with plenty of water. Remove contact lenses.

**If swallowed**

Make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

**SECTION 5 FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

**5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

**5.4 Further information**

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6 ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment, and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7 HANDLING AND STORAGE****7.1 Precautions for safe handling****Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.



**Hygiene measures**

Change contaminated clothing. Wash hands after working with substance.  
For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

**Storage stability**

Recommended storage temperature 2 - 8 °C

**Storage class**

Storage class (TRGS 510): 3: Flammable liquids

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control parameters**

Ingredients with workplace control parameters

**8.2 Exposure controls****8.2.1 Personal protective equipment****a) Eye/face protection:**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

**b) Skin protection****Body protection**

Flame retardant antistatic protective clothing.

**Hand protection**

This recommendation applies only to the product stated in the safety data sheet.

Full contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm

Break through time: > 480 min

Material tested: Butoject® (KCL 898)

Material: Nitrile rubber

Minimum layer thickness: 0,40 mm

Break through time: > 120 min

Material tested: Camatril® (KCL 730)

**c) Respiratory protection:**

Required when vapours/aerosols are generated. Recommended Filter type: Filter type ABEK.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**d) Control of environmental exposure**

Do not let product enter drains. Risk of explosion.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

a) Physical state	liquid
b) Color	No data available
c) Odor	No data available
d) Melting point/freezing point	No data available
e) Initial boiling point and boiling range	No data available
f) Flammability (solid,gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point 60 °C - closed cup	No data available
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
m) Water solubility	No data available
n) Partition coefficient:n-octanol/water	No data available
o) Vapor pressure	No data available
p) Density	No data available
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties none	

**9.2 Other information**

No data available

**SECTION 10 STABILITY AND REACTIVITY****10.1 Reactivity**

Vapor/air-mixtures are explosive at intense warming.

**10.2 Chemical stability**

Vapor/air-mixtures are explosive at intense warming.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Heating.

**10.5 Incompatible materials**

No data available

**10.6 Hazardous decomposition products**

In the event of fire: see section 5

**SECTION 11 TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Mixture****Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information****Endocrine disrupting properties****Product:**

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

**Components****ethanol****Acute toxicity**

LD50 Oral - Rat - male and female - 10.470 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124,7 mg/l - vapor

(OECD Test Guideline 403)

Dermal: No data available

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 24 h

(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Causes serious eye irritation.

(OECD Test Guideline 405)

**Respiratory or skin sensitization**

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Methanol

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 478

Species: Mouse - male

Result: Positive results were obtained in some in vivo tests.

**Carcinogenicity**

No data available

Reproductive toxicity

No data available

**Specific target organ toxicity** - single exposure

No data available

**Specific target organ toxicity** - repeated exposure

**Aspiration hazard**

No data available

**SECTION 12 ECOLOGICAL INFORMATION****12.1 Toxicity****Mixture**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Endocrine disrupting properties****Product:**

**Assessment:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects**

No data available

**Components****ethanol**

**Toxicity to fish** flow-through test LC50 - Pimephales promelas (fatheadminnow) - 15.300 mg/l - 96 h(US-EPA)

**Toxicity to daphnia and other aquatic invertebrates** static test LC50 - Ceriodaphnia dubia (water flea) - 5.012 mg/l - 48 h Remarks: (ECHA)

**Ethanol < 30 %**

- Toxicity to algae** static test ErC50 - Chlorella vulgaris (Fresh water algae) – 275 mg/l – 72 h (OECD Test Guideline 201)
- Toxicity to bacteria** static test IC50 - activated sludge - > 1.000 mg/l – 3 h (OECD Test Guideline 209)
- Toxicity to fish (Chronic toxicity)** semi-static test NOEC - Danio rerio (zebra fish) – 250 mg/l – 120 h Remarks: (ECHA)
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)** semi-static test NOEC - Daphnia magna (Water flea) - 9,6 mg/l- 9 d Remarks: (ECHA)

**SECTION 13 DISPOSAL CONSIDERATIONS****13.1 Disposal methods**

No data available

**SECTION 14 TRANSPORT INFORMATION****14.1 UN number**

ADR/RID: 1993 IMDG: 1993 IATA: 1993

**14.2 UN proper shipping name**

ADR/RID: FLAMMABLE LIQUID, N.O.S. (ethanol)  
IMDG: FLAMMABLE LIQUID, N.O.S. (ethanol)  
IATA: Flammable liquid, n.o.s. (ethanol)

**14.3 Transport hazard class(es)**

ADR/RID: 3 IMDG: 3 IATA: 3

**14.4 Packaging group**

ADR/RID: III IMDG: III IATA: III

**14.5 Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

**14.6 Special precautions for user**

No data available

**SECTION 15 REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No.1907/2006.

**National legislation**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

FLAMMABLE LIQUIDS

**Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16 OTHER INFORMATION****Warning:**

The safety data sheet contains data needed for securing safety and health protection during work and environmental protection. The stated data correspond to the current state of knowledge and experience and is in accordance with valid legal regulations. It cannot be deemed as a guarantee of the properties, suitability, and usefulness of the product for specific application and therefore no contractual legal relationships are hereby created.

The safety data sheet is the property of the physical or legal entity stated in Section 1 and is protected by copy-right. All copying, distribution or sales without the consent of the owner is forbidden.

**Relevant phrases:**

H225 Highly flammable liquid and vapor.  
H226 Flammable liquid and vapor.  
H319 Causes serious eye irritation.

**Training hints:**

Pursuant to article No 35 of the European Parliament and Council Regulation (ES) No 1907/2006, the employer must allow employees or their representatives access to information from the safety data sheet of the substance or preparation, which the employees use or to the effects of which they may be exposed during their work.

Physical entities performed individual activities within the scope of handling of this hazardous product are trained and regularly, at least once a year, retrained.

Product information sources: safety data sheet, product or technical information, safety instructions, and other expert documents for the product, issued by the supplier.

**Recommended restriction of use:**

The product is designed only for professional purposes. It must not be used in households. The product can only be handled by a person older than 18 years, who is sufficiently informed about the work procedures, hazardous properties of the product, and also about the necessary safety measures.

The product is to be used only for the purpose, for which it is designed. It is up to the user's responsibility to adhere to the product usage conditions and to respect the safety instructions for health and environmental protection.

Further information: This product must be stored, sold, and used in accordance with valid hygienic regulations.

**First issue of SDS: 09.12.2022**

Documents used to prepare SDS:

The original documents provided by the supplier or manufacturer related to the product (mixture), eventually to individual substances contained.

**Abbreviations and acronyms:**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic

substance; PICCS – Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI – Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative



**Sulphuric Acid < 5 %****SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifier**

**Trade name:** Sulphuric Acid < 5 %

**Other name:** Sulfuric Acid < 5 %

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

Stop solution for the ELISA kit.

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

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1

621 00 Brno

Czech Republic

Identification number: 63471507

Tel: +420 549 124 185

E-mail: [info@biovendor.com](mailto:info@biovendor.com)

Website: [www.biovendor.com](http://www.biovendor.com)

**1.4 Emergency telephone number**

European Chemicals Agency. National helpdesks contact details

<https://echa.europa.eu/support/helpdesks>

Links to Poison Centers and Clinical Toxicologists all over the World:

<https://www.eapcct.org/index.php?page=links>

**SECTION 2 HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

**Classification according to Regulation 1272/2008/EC:**

Corrosive to metals, Met. Corr. 1, H290

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). (USA)

**2.2 Label elements**

**Hazard pictogram:**



GHS05

**Signal word:** Warning

**Hazard statement:**

H290 May be corrosive to metals.

**Precautionary statement:**

not assigned

**2.2.1 Labelling of packages where the contents does not exceed 125 ml:**

**Hazard pictogram:**

none

**Signal word:**

none

## Sulphuric Acid < 5 %

**Hazard statement:**

none

**Precautionary statement:**

none

**2.3 Other hazards**

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher.

<b>SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS</b>
---

**3.1 Mixtures**

Ingredient	Conc. in w/w %	EINECS	CAS-Nr.	Index-Nr.
Sulphuric acid, 98 %	< 5	231-639-5	7664-93-9	016-020-00-8
<b>REACH RN: 01-2119458838-20-xxxx</b>				

**Classification according to regulation 1272/2008/EC:**

Met. Corr. 1, H290

Skin Corr. 1A, H314

Eye Dam. 1, H318

Specific concentration limits: Skin Corr. 1A, H314: C≥15 %; Skin Irrit. 2, H315: 5 %≤C<15 %; Eye Irrit. 2, H319: 5 %≤C<15 %.

**For full text of and H-phrases see section 16.**

<b>SECTION 4 FIRST AID MEASURES</b>
-------------------------------------

**4.1 Description of first aid measures**

**General information:**

If feeling unwell or unsure, inform a doctor and show information from this Safety Data Sheet. If unconscious, place the affected person in the recovery position on their side with their head slightly backwards and take care there is no obstruction in their respiratory tract, NEVER induce vomiting. If the affected person is vomiting, ensure that they do not choke on their own vomit.

**If inhaled:** Immediately stop the exposure, take the affected person to fresh air. Keep the affected person warm. Get medical attention if irritation, shortness of breath or other symptoms persists.

**In case of skin contact:** Take off contaminated clothing. Wash the affected area with plenty of lukewarm water, if possible. If skin is not irritated, soap, soap solution or shampoo can be used.

Get medical attention if irritation persists.

**In case of contact with eyes:** Rinse the eyes immediately with plenty of running water keeping eyelids open; if the affected person wears contact lenses, remove them immediately. Continue rinsing for minimum 10 minutes. Get medical attention.

**If ingested:** DO NOT INDUCE VOMITING – even the act of inducing vomiting may cause complications. Rinse mouth, if possible, administer a small dose of activated carbon (1-2 crushed tablets); do not attempt neutralization. Get medical attention.

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

**Inhalation:** Possible respiratory tract irritation, cough, headache.

**Skin contact:** Painful reddening, irritation.

**Eye contact:** May cause irritation.

**Ingestion:** May cause irritation, sickness.

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

Immediate medical attention is not necessary.

**SECTION 5    FIREFIGHTING MEASURES****5.1    Extinguishing media**

**Suitable extinguishing media:** Alcohol resistant foam, carbon dioxide, powder, dispersed water, water spray.

**Unsuitable extinguishing media:** none known.

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

In case of fire sodium oxides can be released.

**5.3    Advice for firefighters**

Keep the contaminated fire-extinguishing media away from drains, surface and ground water. If necessary, wear a suitable self-contained breathing apparatus and full protective clothing.

**SECTION 6    ACCIDENTAL RELEASE MEASURES****6.1    Personal precautions, protective equipment and emergency procedures**

Ensure sufficient ventilation. Wear proper protective equipment, refer to Section 8.

**6.2    Environmental precautions**

Avoid soil contamination and keep away from surface and ground water. Avoid spills and keep away from drains.

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

Cover spills with suitable (non-flammable) absorbent (sand, diatomaceous earth, soil, and other suitable absorbent material); collect in a tightly closed container and dispose of in compliance with Section 13. Dispose of the contained material in accordance with local regulations. After containment, wash the affected area with plenty of water or other suitable detergent.

**6.4    Reference to other sections**

See section 7 for handling, section 8 for personal protective equipment, section 13 for disposal.

**SECTION 7    HANDLING AND STORAGE****7.1    Precautions for safe handling**

Do not inhale gases and vapours. Avoid contact with the skin and the eyes. Wear suitable personal protective equipment according to Section 8. Comply with local and national regulations on occupational health and safety. Avoid long-term and repeated exposure.

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

Keep in tightly closed containers and in cool, dry and well-ventilated designated places. Open packaging must be carefully closed and kept in a vertical position to avoid release or spill. Keep away from alkaline materials.

**7.3    Specific end use(s)**

See Section 1.2., no other uses are identified.

**SECTION 8    EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1    Control parameters**

**Czech Republic (Government Decree no. 361/2007 Sb. as amended):** Sulphuric acid, SO<sub>3</sub>: long term 1 mg/m<sup>3</sup>, short term 2 mg/m<sup>3</sup>, note I (causes irritation of mucous membranes (eyes, respiratory tract) and skin irritation).

**Sulphuric Acid < 5 %****8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Use in a well-ventilated area.

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

Take usual occupational health and safety measures. If it is impossible to meet exposition limits, suitable respiratory protective equipment must be used. When using, do not eat, drink and smoke. Wash hands carefully with water and soap after work and before breaks.

**a) Eye/face protection:**

Use protective glasses (according to EN 166).

**b) Skin protection:****Hand protection:**

Use suitable protective gloves resistant to the product. Follow the recommendations of the gloves manufacturer when selecting the appropriate thickness, material and permeability. In the event of long-term or repeated dermal exposure, apply suitable hand cream to the parts of the skin in direct contact with the mixture. Follow other recommendations of the manufacturer.

**Body protection:**

Protective cotton clothing. Carefully wash the skin exposed to the product.

**c) Respiratory protection:**

If necessary, wear a face respirator (according to EN 14387).

**d) Thermal hazards:** No information available.**8.2.3 Environmental exposure controls**

Refer to Sections 6 and 12.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined
pH:	0.8
Melting point/freezing point (°C):	No data available

## Sulphuric Acid < 5 %

Initial boiling point and boiling range (°C):	No data available
Flash point (°C):	No data available
Evaporation rate:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	
Relative density:	No data available
Solubility:	Soluble in water
Partition coefficient n-octanol/water:	
Auto-ignition temperature (°C):	
Decomposition temperature:	
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

### 9.2 Other information

None known.

## SECTION 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No hazardous reactions occur under common conditions of use.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Reacts with strong bases.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Not known under recommended conditions of use.

### 10.6 Hazardous decomposition products

They are not produced under normal use. In the event of fire: sulphur oxides.

## SECTION 11 TOXICOLOGICAL INFORMATION

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

<b>Acute toxicity:</b>	The classification criteria are not met.
Sulphuric acid:	
LD50, oral, rat:	3140 mg/kg
LD50, inhalation, rat:	510 mg/m <sup>3</sup> /2 h
Skin corrosion/ irritation:	The classification criteria are not met. May cause mild irritation.
Serious eye damage/ irritation:	The classification criteria are not met. May cause mild irritation.
Respiratory or skin sensitisation:	The classification criteria are not met.
Germ cell mutagenicity:	The classification criteria are not met.
Carcinogenicity:	The classification criteria are not met.
Reproductive toxicity:	The classification criteria are not met.
STOT – single exposure:	The classification criteria are not met.
STOT – repeated exposure:	The classification criteria are not met.

**Sulphuric Acid < 5 %**

Aspiration hazard: The classification criteria are not met.  
Reproduction toxicity: No data available.

**11.2 Information on other hazards**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

**SECTION 12 ECOLOGICAL INFORMATION****12.1 Toxicity**

No data available on the product itself.

Sulphuric acid:

LC50, fish, *Gambusia affinis*, 96 h: 42 mg/l  
LC50, crustaceans, *Pandalus montagui*, 48 h: 42,5 mg/l

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

Does not meet the criteria for PBT and vPvB.

**12.6 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

**12.7 Other adverse effects**

No data available.

**SECTION 13 DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

Dispose of in accordance with applicable national regulations, to regulate packaging and to amend some statutes (the Packaging Act), as amended and in accordance with implemented regulations on waste disposal.

Appropriate methods of waste treatment of both the substance or the mixture and any contaminated packaging:

The indicated waste, including the waste identification sheet, shall be handed over to a company authorized to treat and dispose of wastes according to the Waste Act and that the company producing waste has entered into a contract with.

Both completely empty and not completely empty packaging shall be placed in designated containers for waste collection and the indicated waste shall be handed over for disposal to a person authorized to dispose of the waste.

**Waste type code** 060101

Waste type sulphuric acid and sulphurous acid \*

Waste subgroup waste from production, processing, distribution and use (VZDP) of acids

Waste group WASTE CREATED BY ANORGANIC CHEMICAL PROCESSES

**Waste type code for packaging** 150110

**Sulphuric Acid < 5 %**

Waste type	packaging containing residues of dangerous substances or packaging contaminated with these substances *
Waste subgroup	Packaging (including separately collected household packaging material)
Waste group	WASTE PACKAGING; ABSORPTION AGENTS; CLEANING CLOTHS; FILTRATION MATERIALS AND PROTECTIVE CLOTHING NOT SPECIFIED IN ANY OTHER MANNER

( \* ) – hazardous waste according to Directive No. 91/689/EEC on hazardous waste

**SECTION 14 TRANSPORT INFORMATION****14.1 UN number or ID number**

3264.

**14.2 UN proper shipping name**

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid).

**14.3 Transport hazard class**

8.

**14.4 Packing group**

III.

**14.5 Environmental hazards**

No.

**14.6 Special precautions for user**

No data available.

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

No data available.

**SECTION 15 REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 878/2020.

**U.S. Federal regulations:**

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 311: sulphuric acid.

**15.2 Chemical safety assessment**

Chemical safety assessment has not been carried out.

**SECTION 16 OTHER INFORMATION****Warning:**

The safety data sheet contains data needed for securing safety and health protection during work and environ-mental protection. The stated data correspond to the current state of knowledge and



**Sulphuric Acid < 5 %**

experience and is in accordance with valid legal regulations. It cannot be deemed as a guarantee of the properties, suitability, and usefulness of the product for specific application and therefore no contractual legal relationships are hereby created.

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**Relevant phrases:**

- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.

**Hazardous Material Information System (U.S.A.)**

Health	1
Chronic Health Hazard	
Flammability	0
Physical Hazards	0

**National Fire Protection Association (U.S.A.)**

Health	1
Flammability	0
Instability/Reactivity	0
Special	

**Training hints:**

Pursuant to article No 35 of the European Parliament and Council Regulation (ES) No 1907/2006, the employer must allow employees or their representatives access to information from the safety data sheet of the substance or preparation, which the employees use or to the effects of which they may be exposed during their work.

Physical entities performed individual activities within the scope of handling of this hazardous product are trained and regularly, at least once a year, retrained.

Product information sources: safety data sheet, product or technical information, safety instructions, and other expert documents for the product, issued by the supplier.

**Recommended restriction of use:**

The product is designed only for professional purposes. It must not be used in households. The product can only be handled by a person older than 18 years, who is sufficiently informed about the work procedures, hazardous properties of the product, and also about the necessary safety measures.

The product is to be used only for the purpose, for which it is designed. It is up to the user's responsibility to adhere to the product usage conditions and to respect the safety instructions for health and environmental protection.

Further information: This product must be stored, sold, and used in accordance with valid hygienic regulations.

**Date of issue:** 30.5.2022

**Revision notes:** Commission Regulation (EU) No. 830/2015 was replaced by Commission Regulation (EU) No. 878/2022. Change of classification of the mixture. Exception for labelling of packaging not exceeding 125 ml, addition of REACH RN of the component, change of section 11 structure, addition of transport information in section 14.