

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pepsin Solution (ZUC038-060)**

Print date: 07.10.2014

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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

in vitro-diagnostic reagent or laboratory reagent

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

Company name:	Zytomed Systems GmbH	
Street:	Anhaltinerstraße 16	
Place:	D-14163 Berlin	
Telephone:	+49 30 804 984 990	Telefax: +49 30 804 984 999
e-mail:	info@zytomed-systems.de	
Internet:	www.zytomed-systems.de	

**1.4. Emergency telephone number:** +49 30 804 984 990**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: C - Corrosive

R phrases:  
Causes burns.**GHS classification**

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008.

**2.2. Label elements****Special labelling of certain mixtures**

EUH208 Contains Pepsin A. May produce an allergic reaction.

**2.3. Other hazards**

No risks worthy of mention.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

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#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
201-064-4	Tris-(hydroxymethyl)-aminomethan	<1 %
77-86-1	Xi - Irritant R36/37	
	Skin Irrit. 2, Eye Irrit. 2; H315 H319	
232-629-3	Pepsin A	<0,3 %
9001-75-6	Xi - Irritant R36/37/38-42	
647-008-00-6	Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Resp. Sens. 1; H319 H335 H315 H334	
231-595-7	hydrogen chloride	<0,2 %
7647-01-0	T - Toxic, C - Corrosive R23-35	
017-002-00-2	Acute Tox. 3, Skin Corr. 1A; H331 H314	

Full text of R and H phrases: see Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### After inhalation

Provide fresh air.

###### After contact with skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

###### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

###### After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Hazards identification: Stomach perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

No data available

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

No further informations

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

The product itself does not burn.

##### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

##### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### SECTION 6: Accidental release measures

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. Wear personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4. Reference to other sections

see chapter 8 and 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

#### 7.3. Specific end use(s)

in vitro-diagnostic reagent or laboratory reagent

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7647-01-0	Hydrogen chloride (gas and aerosol mists)	1	2		TWA (8 h)	WEL
		5	8		STEL (15 min)	WEL

#### 8.2. Exposure controls

##### Occupational exposure controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### Hand protection

Tested protective gloves are to be worn: NBR (Nitrile rubber).

##### Eye protection

Suitable eye protection: Framed glasses.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid  
 Colour: colourless  
 Odour: odourless

#### Test method

pH-Value: Not determined

#### Changes in the physical state

Melting point: Not determined  
 Initial boiling point and boiling range: Not determined  
 Flash point: Not determined

#### Flammability

Solid: Not determined  
 Gas: Not determined

Lower explosion limits: Not determined  
 Upper explosion limits: Not determined

#### Auto-ignition temperature

Solid: Not determined  
 Gas: Not determined

Vapour pressure: Not determined  
 Density: Not determined  
 Water solubility: Not determined

#### Solubility in other solvents

Not determined

Partition coefficient: Not determined  
 Vapour density: Not determined  
 Evaporation rate: Not determined

#### 9.2. Other information

No further informations

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 10.5. Incompatible materials

No data available

#### 10.6. Hazardous decomposition products

No data available

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**Further information**

No further informations

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
77-86-1	Tris-(hydroxymethyl)-aminomethan				
	oral	LD50	5900 mg/kg	Ratte	
7647-01-0	hydrogen chloride				
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		

**Irritation and corrosivity**

after ingestion: Irritation and etching. Hazards identification: Stomach perforation.

**Sensitising effects**

May cause sensitization by skin contact.

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 12: Ecological information**

**12.1. Toxicity**

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**

No data available.

**12.6. Other adverse effects**

No data available.

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

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160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

#### SECTION 14: Transport information

**Land transport (ADR/RID)****Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

**Marine transport (IMDG)****Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO)****Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

No further informations

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No further informations

#### SECTION 15: Regulatory information

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

1999/13/EC (VOC): 0,5 %

**National regulatory information**

Water contaminating class (D): 2 - water contaminating

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

#### SECTION 16: Other information

**Full text of R phrases referred to under Sections 2 and 3**

23 Toxic by inhalation.  
34 Causes burns.  
35 Causes severe burns.  
36/37 Irritating to eyes and respiratory system.  
36/37/38 Irritating to eyes, respiratory system and skin.  
42 May cause sensitisation by inhalation.

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**Full text of H statements referred to under Sections 2 and 3**

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

**Further Information**

This information is based on our present knowledge. No guarantee is given regarding its accuracy or comprehensiveness. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Zytomed Systems shall not be held liable for resulting damages from handling or from contact with the above product. Paper copies are allowed to be used for internal use only.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*