

## Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

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

- **1.1 Product identifier**
  - **Trade name:** **L 5104**
  - **Article number:** 285138295
  - **Description:** Pepsin/hydrochloric acid solution
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
  - **Product category:** PC21 Laboratory chemicals
  - **Process category:** PROC15 Use as laboratory reagent
  - **Application of the substance / the preparation:** Cleaning of electrodes
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
Am Achalaich 11  
82362 Weilheim  
Germany

Kontakt: SI Analytics, Mainz  
Tel. +49 6131 894-5111
  - **Further information obtainable from:** E-Mail: [msds.si@xylem.com](mailto:msds.si@xylem.com)
- **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008:**

Met. Corr.1 H290 May be corrosive to metals.
- **2.2 Label elements:**
  - **Labelling according to Regulation (EC) No 1272/2008:**

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

    - **Hazard pictograms:**



GHS05

- **Signal word:** Warning
- **Hazard statements:**

H290 May be corrosive to metals.
- **Precautionary statements:**

P234 Keep only in original packaging.
- **Additional information:**

EUH208 Contains Pepsin A. May produce an allergic reaction.

(Contd. on page 2)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 1)

## 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.

Environmental information: The substance/mixture does not contain components with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

Toxicological information: The substance/mixture does not contain components with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description:

Mixture of substances listed below with nonhazardous additions.  
Water, pepsin A, hydrochloric acid

#### Dangerous components:

|                            |                                                                                                                                                                                                                                                   |         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 9001-75-6             | Pepsin A                                                                                                                                                                                                                                          | 0.1-<1% |
| EINECS: 232-629-3          |  Resp. Sens. 1, H334;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 |         |
| Index number: 647-008-00-6 |                                                                                                                                                                                                                                                   |         |

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

#### After skin contact:

Wash with plenty of water.

Take off immediately all contaminated clothing and wash it before reuse.

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

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

#### After swallowing:

Make victim drink water immediately (2 glasses at most).

Do not induce vomiting (risk of perforation)

Call a doctor immediately.

Do not attempt to neutralize.

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

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

**Hazards** May produce an allergic reaction.

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

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:** The product is not flammable. Extinguishing agent to suit environment.

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

In case of fire, the following can be released:

Hydrogen chloride (HCl)

(Contd. on page 3)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 2)

## · 5.3 Advice for firefighters

### · Protective equipment:

Stay in the danger zone only with self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing.

## SECTION 6: Accidental release measures

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

Wear personal protective equipment (see section 8).

### · 6.2 Environmental precautions: No special measures required.

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

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

Dispose contaminated material as waste according to section 13.

Wash off residuals with water.

### · 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 Wear personal protective equipment (see section 8)

· **Information about fire - and explosion protection:** No special measures required.

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

· **Requirements to be met by storerooms and receptacles:** Recommendation: Store in the original container.

· **Information about storage in one common storage facility:** No special requirements.

· **Further information about storage conditions:**

Keep container tightly sealed.

Recommended storage temperature: 15 - 25 °C

### · 7.3 Specific end use(s) No further relevant information available.

## 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.

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

### · 8.2 Exposure controls

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

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

##### · General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

##### · Respiratory protection:

Use suitable respiratory protective device only when aerosol or mist is formed.

Recommended filter type: Combination filter B-P2

(Contd. on page 4)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 3)

· **Hand protection** Protective gloves

· **Material of gloves**

- For full contact:

Nitrile rubber, NBR

Recommended material thickness:  $\geq 0.11$  mm

Breakthrough time: 480 min

- For splash contact:

Nitrile rubber

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

Breakthrough time: 480 min

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.

· **Eye/face protection** Safety goggles with side protection

· **Environmental exposure controls** Avoid transfer into the environment.

## SECTION 9: Physical and chemical properties

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

· **General Information**

· **Physical state**

Liquid

· **Colour:**

Colourless

· **Odour:**

Odourless

· **Melting point/freezing point:**

No data available.

· **Boiling point or initial boiling point and boiling range**

100 °C

· **Flammability**

Product is not flammable.

· **Flash point:**

Not applicable.

· **pH at 20 °C**

1

· **Viscosity:**

· **Kinematic viscosity**

No data available.

· **Dynamic viscosity:**

No data available.

· **Solubility**

· **water:**

Fully miscible.

· **Vapour pressure at 20 °C:**

23 hPa

· **Density and/or relative density**

· **Density at 20 °C:**

1 g/cm<sup>3</sup>

· **9.2 Other information**

· **Important information on protection of health and environment, and on safety.**

· **Ignition temperature:**

Product is not selfigniting.

· **Explosive properties:**

Product does not present an explosion hazard.

· **Information with regard to physical hazard classes**

Void

· **Corrosive to metals**

May be corrosive to metals.

## SECTION 10: Stability and reactivity

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

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:** Do not heat above 50 °C.

· **10.3 Possibility of hazardous reactions** Formation of hydrogen possible with metals and alloys (risk of explosion).

(Contd. on page 5)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 4)

- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Chlorine  
Hydrogen chloride (HCl)  
In case of fire: See section 5.

## 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.
  - **Acute toxicity estimate of the mixture (ATE) - Calculation method:**
    - **Primary irritant effect:**
      - **Skin corrosion/irritation** Local irritation possible.
      - **Serious eye damage/irritation** Irritation possible.
    - **Respiratory or skin sensitisation** Contains Pepsin A. May produce allergic 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.

### · 11.2 Information on other hazards

#### · Endocrine disrupting properties

The substance/mixture does not contain components that have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

## SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
  - **General notes:** Not hazardous for water.
  - **Additional ecological information:**
    - **General notes:** Not hazardous for water.
  - **Additional ecological information:** Not hazardous for water.

EU

(Contd. on page 6)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 5)

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

#### Uncleaned packaging:

##### Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR/RID, IMDG, IATA UN1789

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA HYDROCHLORIC ACID

### 14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA



Class 8 Corrosive substances.  
Label 8

### 14.4 Packing group

ADR/RID, IMDG, IATA III

### 14.5 Environmental hazards:

Marine pollutant: No

### 14.6 Special precautions for user

Warning: Corrosive substances.

Hazard identification number (Kemler code): 80  
EMS Number: F-A,S-B  
Segregation groups (SGG1a) Strong acids  
Stowage Category E  
Segregation Code SG36 Stow "separated from" SGG18-alkalis.  
SG49 Stow "separated from" SGG6-cyanides

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

Not applicable.

#### ADR/RID

Limited quantities (LQ) 5L  
Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml  
Transport category 3  
Tunnel restriction code E

(Contd. on page 7)

# Safety data sheet

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

Printing date 07.10.2025

Version number 5 (replaces version 4)

Revision: 02.10.2025

Trade name: L 5104

(Contd. of page 6)

· **UN "Model Regulation":** UN 1789 HYDROCHLORIC ACID, 8, III

## SECTION 15: Regulatory information

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

#### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** hydrogen chloride

· **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**

CAS: 7647-01-0 hydrogen chloride

3

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

CAS: 7647-01-0 hydrogen chloride

3

### · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

#### · Relevant phrases

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

· **Date of previous version:** 06.04.2022

· **Version number of previous version:** 4

#### · Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organisation

ADR: Accord 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3