

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.03.2020

Version number 2

Revision: 30.03.2020

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

### · 1.1 Product identifier

· Trade name: **pH-Regenerierungslösung**

### · 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:** Water analysis

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

#### · **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
Sensortechnik Meinsberg  
Meinsberg, Kurt-Schwabe-Straße 6  
D-04736 Waldheim  
Germany  
Tel. +49 34327 623-0

· **Further information obtainable from:** Email: info@meinsberg.de

· **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:**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.  
Acute Tox. 2 H310 Fatal in contact with skin.  
Acute Tox. 3 H331 Toxic if inhaled.



GHS05 corrosion

Met. Corr. 1 H290 May be corrosive to metals.  
Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.

### · 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, GHS06
- **Signal word:** Danger

· **Hazard-determining components of labelling:**  
hydrofluoric acid

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hydrogen chloride

· **Hazard statements:**

- H290 May be corrosive to metals.  
 H301+H331 Toxic if swallowed or if inhaled.  
 H310 Fatal in contact with skin.  
 H314 Causes severe skin burns and eye damage.

· **Precautionary statements:**

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards** No further relevant information available.

## SECTION 3: Composition/information on ingredients

· **3.2 Mixture**

- **Description:** Aqueous solution

· **Dangerous components:**

CAS: 7647-01-0 EINECS: 231-595-7 Index number: 017-002-00-2	hydrogen chloride ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; STOT SE 3, H335	5 – < 10%
CAS: 7664-39-3 EINECS: 231-634-8 Index number: 009-003-00-1	hydrofluoric acid ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1A, H314	5 – < 7%

- **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:**

In case of unconsciousness place patient stably in side position for transportation.  
 Supply fresh air or oxygen; call for doctor.

· **After skin contact:**

Wash with plenty of water.  
 Take off contaminated clothing.  
 Rub in calcium gluconate solution or calcium gluconate gel to affected area if at hand.  
 Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

· **After eye contact:**

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

· **After swallowing:**

Make victim drink water immediately (2 glasses at most).  
 Do not induce vomiting (risk of perforation)  
 Do not attempt to neutralize.  
 Call a doctor immediately.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

- **Suitable extinguishing agents:** 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)

Hydrogen fluoride (HF)

### · 5.3 Advice for firefighters

#### · **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

## 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:

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

### · 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.

Ensure adequate ventilation.

### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

### · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Wear personal protective equipment (see section 8)

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

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

- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

- **Information about storage in one common storage facility:** Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions:**

Store under lock and key and with access restricted to technical experts or their assistants only.

Keep container tightly sealed.

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

## SECTION 8: Exposure controls/personal protection

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

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## · 8.1 Control parameters

· <b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>7647-01-0 hydrogen chloride</b>	
IOELV	Short-term value: 15 mg/m <sup>3</sup> , 10 ppm Long-term value: 8 mg/m <sup>3</sup> , 5 ppm
<b>7664-39-3 hydrofluoric acid</b>	
IOELV	Short-term value: 2.5 mg/m <sup>3</sup> , 3 ppm Long-term value: 1.5 mg/m <sup>3</sup> , 1.8 ppm

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

## · 8.2 Exposure controls

### · Personal protective equipment:

#### · General protective and hygienic measures:

- Avoid contact with the eyes and skin.
- Do not inhale gases / fumes / aerosols.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.

#### · Respiratory protection:

Only required when fog or aerosols are generated or when the workplace is not sufficiently ventilated.

· **Recommended Filter type:** Combination filter E/P3

#### · Protection of hands: Protective gloves

##### · Material of gloves

- Chloroprene rubber, CR
- Recommended thickness of the material:  $\geq 0.65$  mm

#### · Eye protection: Safety glasses

#### · Body protection: Protective work clothing

### · Limitation and supervision of exposure into the environment

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

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

## SECTION 9: Physical and chemical properties

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

· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Pungent
· <b>pH-value at 25 °C:</b>	ca. 0
· <b>Change in condition</b>	
· <b>Melting point/freezing point:</b>	ca. 0 °C
· <b>Initial boiling point and boiling range:</b>	ca. 100 °C
· <b>Flash point:</b>	Not applicable.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density:</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>water:</b>	Fully miscible.

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· **9.2 Other information** No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Violent reactions possible with:  
Metals, alkali metals, strong alkalis, silicon compounds, potassium permanganate.
- **10.4 Conditions to avoid** Do not heat.
- **10.5 Incompatible materials:** Glass, metals, quartz/silica ceramics.
- **10.6 Hazardous decomposition products:**  
Hydrogen chloride (HCl)  
Hydrogen fluoride

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity**  
Toxic if swallowed or if inhaled.  
Fatal in contact with skin.

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

**7647-01-0 hydrogen chloride**

Oral	LD50	900 mg/kg (Rabbit)
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- **Primary irritant effect:**
  - **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
  - **Serious eye damage/irritation**  
Serious eye damage. Risk of blindness!  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Acute effects (acute toxicity, irritation and corrosivity):**  
Systemic effects: Collapse, convulsions, cardiovascular disorder.  
Lethal effect after absorption.  
If ingested, severe burns of the mouth and throat, as well as a danger of the perforation of the oesophagus and the stomach.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
  - **Carcinogenicity** Based on available data, the classification criteria are not met.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects**
  - **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**

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

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b>   |   |
| · <b>ADR/RID, IMDG, IATA</b>  | UN2922  |
| · <b>14.2 UN proper shipping name</b>   |   |
| · <b>ADR/RID, IMDG, IATA</b>  | CORROSIVE LIQUID, TOXIC, N.O.S. (hydrofluoric acid, hydrogen chloride)              |
| · <b>14.3 Transport hazard class(es)</b>  |   |
| · <b>ADR/RID</b>  |   |
|  |  |
| · <b>Class</b>  | 8 Corrosive substances.   |
| · <b>Label</b>  | 8+6.1   |
| · <b>IMDG</b>   |   |
|  |  |
| · <b>Class</b>  | 8 Corrosive substances.   |
| · <b>Label</b>  | 8/6.1   |
| · <b>IATA</b>   |   |
|  |  |
| · <b>Class</b>  | 8 Corrosive substances.   |
| · <b>Label</b>  | 8 (6.1)   |

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· <b>14.4 Packing group</b> · ADR/RID, IMDG, IATA	II
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Not applicable. Warning: Corrosive substances.
· <b>Hazard identification number (Kemler code):</b>	86
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>ADR/RID</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>UN "Model Regulation":</b>	UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID, HYDROGEN CHLORIDE), 8 (6.1), II

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
    - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
    - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
    - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

- **Relevant phrases**
  - H300 Fatal if swallowed.
  - H302 Harmful if swallowed.
  - H310 Fatal in contact with skin.
  - H314 Causes severe skin burns and eye damage.
  - H330 Fatal if inhaled.
  - H335 May cause respiratory irritation.
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Met. Corr. 1: Corrosive to metals – Category 1
  - Acute Tox. 2: Acute toxicity - oral – Category 2
  - Acute Tox. 3: Acute toxicity - oral – Category 3

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Acute Tox. 4: Acute toxicity - oral – Category 4  
Acute Tox. 1: Acute toxicity - dermal – Category 1  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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