

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 1 / 10

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

### 1.1 Product identifier

**GRL 100**

**Article number: 601422, 480444**

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

#### 1.2.1 Relevant uses

Cleaning agent for measuring electrodes

#### 1.2.2 Uses advised against

None known.

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

#### Company

Senseca Germany GmbH  
Tenter Weg 2-8  
42897 Remscheid / GERMANY  
Phone +49(0)9402 9383-0  
Fax +49(0)9402 9383-33  
Homepage [www.ghm-group.de](http://www.ghm-group.de)  
E-mail [info@senseca.com](mailto:info@senseca.com)

#### Address enquiries to

#### Technical information

[info@ghm-group.de](mailto:info@ghm-group.de)

#### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de) (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

#### Advisory body

+49 (0)89-19240 (24h) (English)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

No classification.

### 2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

#### Hazard pictograms

none

#### Signal word

none

#### Hazard statements

none

#### Precautionary statements

none

#### Special labelling

EUH210 Safety data sheet available on request.

Contains: Pepsin A. EUH208 May produce an allergic reaction.

#### Cleaner, 648/2004/CE, contains:

preservatives METHYLPARABEN  
enzymes

### 2.3 Other hazards

#### Human health dangers

Contains no ingredients with endocrine-disrupting properties.

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

not applicable

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 2 / 10

### 3.2 Mixtures

The product is a mixture.

| Range [%] | Substance                                                                                                              |
|-----------|------------------------------------------------------------------------------------------------------------------------|
| < 1       | Hydrochloric acid                                                                                                      |
|           | CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX                       |
|           | GHS/CLP: Skin Corr. 1A: H314 - Eye Dam. 1: H318 - STOT SE 3: H335 - Met. Corr. 1: H290                                 |
|           | SCL [%]: 10 - <25: Skin Irrit. 2: H315, 10 - <25: Eye Irrit. 2: H319, >=25: Skin Corr. 1A: H314, >=10: STOT SE 3: H335 |
| < 1       | Pepsin A                                                                                                               |
|           | CAS: 9001-75-6, EINECS/ELINCS: 232-629-3, EU-INDEX: 647-008-00-6                                                       |
|           | GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Resp. Sens. 1: H334                              |

Comment on component parts

For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                            |                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information</b> | Take off contaminated clothing and wash before reuse.                                                                                                                             |
| <b>Inhalation</b>          | Ensure supply of fresh air.<br>In the event of symptoms seek medical treatment.                                                                                                   |
| <b>Skin contact</b>        | When in contact with the skin, clean with soap and water.<br>If skin irritation or rash occurs: Get medical advice/attention.                                                     |
| <b>Eye contact</b>         | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>If eye irritation persists: Get medical advice/attention. |
| <b>Ingestion</b>           | Rinse out mouth and give plenty of water to drink.<br>Do not induce vomiting.<br>Get medical advice.                                                                              |

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

Irritant effects

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

Treat symptomatically.  
Forward this sheet to your doctor.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

|                                                  |                                                                                                       |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>              | Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered. |
| <b>Extinguishing media that must not be used</b> | Full water jet.                                                                                       |

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

Risk of formation of toxic pyrolysis products.

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

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

High risk of slipping due to leakage/spillage of product.  
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 3 / 10

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

Take up with absorbent material (e.g. general-purpose binder).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid skin contact. Use personal protective equipment.

Do not eat, drink or smoke when using this product.  
Wash hands before breaks and after work.  
Use barrier skin cream.  
Take off contaminated clothing and wash before reuse.

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

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with food and animal food/diet.  
Keep container tightly closed.

Storage class (TRGS 510)

Storage class 12 (VCI)

### 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored DE (TRGS 900)

|                                                                                                  |
|--------------------------------------------------------------------------------------------------|
| Substance                                                                                        |
| Hydrochloric acid                                                                                |
| CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX |
| Exposure limit: 2 ppm, 3 mg/m <sup>3</sup> , Y, DFG, EU                                          |
| Factor: 2(I)                                                                                     |

#### Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

|                                                                                                  |
|--------------------------------------------------------------------------------------------------|
| Substance / EC LIMIT VALUES                                                                      |
| Hydrochloric acid                                                                                |
| CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX |
| Eight hours: 5 ppm, 8 mg/m <sup>3</sup>                                                          |
| Short-term (15-minute): 10 ppm, 15 mg/m <sup>3</sup>                                             |

#### DNEL

|                                                                                |
|--------------------------------------------------------------------------------|
| Substance                                                                      |
| Hydrochloric acid, CAS: 7647-01-0                                              |
| Industrial, inhalative, Acute - local effects, 15 mg/m <sup>3</sup>            |
| Industrial, inhalative, Long-term - local effects, 8 mg/m <sup>3</sup>         |
| general population, inhalative, Long-term - local effects, 8 mg/m <sup>3</sup> |
| general population, inhalative, Acute - local effects, 15 mg/m <sup>3</sup>    |

#### PNEC

|                                           |
|-------------------------------------------|
| Substance                                 |
| Hydrochloric acid, CAS: 7647-01-0         |
| freshwater, 0,036 mg/l                    |
| seawater, 0,036 mg/l                      |
| sewage treatment plants (STP), 0,036 mg/l |

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 4 / 10

## 8.2 Exposure controls

|                                                                    |                                                                                                                                                           |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Additional advice on system design</b>                          | Ensure adequate ventilation on workstation.                                                                                                               |
| <b>Eye protection</b>                                              | Safety glasses. (EN 166:2001)                                                                                                                             |
| <b>Hand protection</b>                                             | 0,4 mm; Butyl rubber, >120 min (EN 374-1/-2/-3).<br>The details concerned are recommendations. Please contact the glove supplier for further information. |
| <b>Skin protection</b>                                             | Protective clothing (EN 340)                                                                                                                              |
| <b>Other</b>                                                       | Avoid contact with eyes and skin.                                                                                                                         |
| <b>Respiratory protection</b>                                      | Not required under normal conditions.                                                                                                                     |
| <b>Thermal hazards</b>                                             | none                                                                                                                                                      |
| <b>Delimitation and monitoring of the environmental exposition</b> | Comply with applicable environmental regulations limiting discharge to air, water and soil.                                                               |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                                      |                           |
|----------------------------------------------------------------------|---------------------------|
| <b>Physical state</b>                                                | liquid                    |
| <b>Form</b>                                                          | liquid                    |
| <b>Color</b>                                                         | clear                     |
| <b>Odor</b>                                                          | faintly pungent           |
| <b>Odour threshold</b>                                               | not determined            |
| <b>pH-value</b>                                                      | 1 - 1,5                   |
| <b>pH-value [1%]</b>                                                 | not determined            |
| <b>Boiling point or initial boiling point and boiling range [°C]</b> | ca. 100                   |
| <b>Flash point [°C]</b>                                              | not applicable            |
| <b>Flammability</b>                                                  | not applicable            |
| <b>Lower explosion limit</b>                                         | not applicable            |
| <b>Upper explosion limit</b>                                         | not applicable            |
| <b>Oxidising properties</b>                                          | no                        |
| <b>Vapour pressure/gas pressure [kPa]</b>                            | not determined            |
| <b>Density [g/cm³]</b>                                               | ca. 1,0                   |
| <b>Relative density</b>                                              | not determined            |
| <b>Bulk density [kg/m³]</b>                                          | not applicable            |
| <b>Solubility in water</b>                                           | miscible                  |
| <b>Solubility other solvents</b>                                     | No information available. |
| <b>Partition coefficient n-octanol/water (log value)</b>             | not determined            |
| <b>Kinematic viscosity</b>                                           | not relevant              |
| <b>Relative vapour density</b>                                       | not determined            |
| <b>Melting point [°C]</b>                                            | not determined            |
| <b>Auto-ignition temperature [°C]</b>                                | not self-igniting         |
| <b>Decomposition temperature [°C]</b>                                | not determined            |
| <b>Particle characteristics</b>                                      | not applicable            |

### 9.2 Other information

98,1 - 99,1 % Water:

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 5 / 10

### 10.3 Possibility of hazardous reactions

Corrosive to metals.

### 10.4 Conditions to avoid

Warming

### 10.5 Incompatible materials

Various metals.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 6 / 10

## SECTION 11: Toxicological information

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

#### Acute oral toxicity

|                                                                                          |
|------------------------------------------------------------------------------------------|
| Product                                                                                  |
| oral, Based on the available information, the classification criteria are not fulfilled. |

#### Acute dermal toxicity

|                                                                                            |
|--------------------------------------------------------------------------------------------|
| Product                                                                                    |
| dermal, Based on the available information, the classification criteria are not fulfilled. |

#### Acute inhalational toxicity

|                                                                                                |
|------------------------------------------------------------------------------------------------|
| Product                                                                                        |
| inhalative, Based on the available information, the classification criteria are not fulfilled. |

|                                             |
|---------------------------------------------|
| Substance                                   |
| Hydrochloric acid, CAS: 7647-01-0           |
| LC50, inhalative, Rabbit, 4,2 - 4,7 mg/l 1h |
| LC50, inhalativ (gas), Rat, 40989 ppm/5min  |
| LC50, inhalativ (gas), Rat, 4701 ppm/30min  |
| LC50, inhalativ (mist), Rat, 45,6 mg/l/5min |
| LC50, inhalativ (mist), Rat, 8,3 mg/l/30min |

#### Serious eye damage/irritation

Non-corrosive / non-irritating.  
Classification was carried out based on substance-specific concentration limits.

|                                   |
|-----------------------------------|
| Substance                         |
| Hydrochloric acid, CAS: 7647-01-0 |
| in vivo, OECD 437, corrosive      |

#### Skin corrosion/irritation

Non-corrosive / non-irritating.  
Classification was carried out based on substance-specific concentration limits.

|                                                                              |
|------------------------------------------------------------------------------|
| Substance                                                                    |
| Hydrochloric acid, CAS: 7647-01-0                                            |
| Reconstituted human epidermis model, in vitro / ex vivo, OECD 431, corrosive |

#### Respiratory or skin sensitisation

Based on the available information, the classification criteria are not fulfilled.

|                                                      |
|------------------------------------------------------|
| Substance                                            |
| Hydrochloric acid, CAS: 7647-01-0                    |
| mouse, in vivo (non-LLNA), OECD 406, non-sensitizing |

#### Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are not fulfilled.

#### Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.

|                                                     |
|-----------------------------------------------------|
| Substance                                           |
| Hydrochloric acid, CAS: 7647-01-0                   |
| NOAEC, inhalative, Rat, 30 mg/m³, OECD 413, negativ |

#### Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

#### Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

#### Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

|                                                                             |
|-----------------------------------------------------------------------------|
| Substance                                                                   |
| Hydrochloric acid, CAS: 7647-01-0                                           |
| NOAEC, inhalative, Rat, 15 mg/m³, In vivo study, no adverse effect observed |

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 7 / 10

**Aspiration hazard** Based on the available information, the classification criteria are not fulfilled.  
**General remarks**

Toxicological data of complete product are not available.

## 11.2 Information on other hazards

**11.2.1 Endocrine disrupting properties** Contains no ingredients with endocrine-disrupting properties.

**11.2.2 Other information** none

## SECTION 12: Ecological information

### 12.1 Toxicity

|                                   |
|-----------------------------------|
| Substance                         |
| Hydrochloric acid, CAS: 7647-01-0 |
| LC50, Fish, 20,5 mg/l             |

### 12.2 Persistence and degradability

**Behaviour in environment compartments** No information available.

**Behaviour in sewage plant** No information available.

**Biological degradability** No information available.

### 12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

### 12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

### 12.7 Other adverse effects

Do not discharge product unmonitored into the environment or into the drainage.  
Ecological data of complete product are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Dispose of as hazardous waste.

**Waste no. (recommended)** 200129\*

#### Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

**Waste no. (recommended)** 150110\* packaging containing residues of or contaminated by hazardous substances

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 8 / 10

## SECTION 14: Transport information

### 14.1 UN number or ID number

Transport by land according to ADR/RID 1789

Inland navigation (ADN) 1789

Marine transport in accordance with IMDG 1789

Air transport in accordance with IATA 1789

### 14.2 UN proper shipping name

Transport by land according to ADR/RID Hydrochloric acid, solution

- Classification Code C1

- Label



- ADR LQ 5 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN) Hydrochloric acid, solution

- Classification Code C1

- Label



Marine transport in accordance with IMDG Hydrochloric acid, solution

- EMS F-A, S-B

- Label



- IMDG LQ 5 I

Air transport in accordance with IATA Hydrochloric acid, solution

- Label



### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID 8

Inland navigation (ADN) 8

Marine transport in accordance with IMDG 8

Air transport in accordance with IATA 8

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 9 / 10

#### 14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

### SECTION 15: Regulatory information

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

|                                                   |                                                                                                                                                                                                                                                                  |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EEC-REGULATIONS</b>                            | 2008/98/EG (2000/532/EC ); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EWG ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 2024/573; (EU) 2019/1148; (EU) 2019/1021, (EU) 2023/707                                |
| - Comment on component parts                      | Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.                                                                                                                                                                          |
| - Annex XIV (REACH)                               | According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.                                                                                                          |
| - Annex XVII (REACH)                              | According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 75<br>According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions. |
| <b>TRANSPORT-REGULATIONS</b>                      | ADR (2025); IMDG-Code (2025, 42. Amdt.); IATA-DGR (2025)                                                                                                                                                                                                         |
| <b>NATIONAL REGULATIONS (DE):</b>                 | Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905.                                                               |
| - Water hazard class                              | 1, conf. AwSV, 18.04.2017                                                                                                                                                                                                                                        |
| - Decree for case of interference, observe limits | no                                                                                                                                                                                                                                                               |
| - Class. according to TA-Luft                     | not applicable                                                                                                                                                                                                                                                   |
| - Storage class (TRGS 510)                        | Storage class 12 (VCI)                                                                                                                                                                                                                                           |
| - Observe employment restrictions for people      | none                                                                                                                                                                                                                                                             |
| - VOC (2010/75/CE)                                | not relevant                                                                                                                                                                                                                                                     |

#### 15.2 Chemical safety assessment

GRL 100

Article number 601422, 480444

Senseca Germany GmbH

42897 Remscheid

Date printed 03.04.2025, Revision 03.04.2025

Version 3.0

Page 10 / 10

## SECTION 16: Other information

### 16.1 Hazard statements (SECTION 3)

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

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H290 May be corrosive to metals.

H335 May cause respiratory irritation.

H318 Causes serious eye damage.

H314 Causes severe skin burns and eye damage.

### 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

ATE = acute toxicity estimate

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration

ECB = European Chemicals Bureau

EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

EL50 = Median effective loading

ELINCS = European List of Notified Chemical Substances

EmS = Emergency Schedules

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform Chemical Information Database

IVIS = In vitro irritation score

LC50 = Lethal concentration, 50%

LD50 = Median lethal dose

LC0 = lethal concentration, 0%

LOAEL = lowest-observed-adverse-effect level

LL50 = Median lethal loading

LQ = Limited Quantities

MARPOL = International Convention for the Prevention of Marine Pollution from Ships

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

STP = Sewage Treatment Plant

TLV®/TWA = Threshold limit value – time-weighted average

TLV®STEL = Threshold limit value – short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

### 16.3 Other information

Classification procedure

Modified position

2.1, 2.2, 2.3, 3.2, 11.1

Copyright: Chemiebüro®