



# SAFETY DATA SHEET ( SDS )

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008, (EU) No. 453/2010

Revision Date 18-May-2015

WAI2 - EGHS - EUROPEAN

Revision Number 1

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product Identifier

**Product Name** pH Electrode Cleaning Solution  
**Product Number(s)** 00653-06, 35655-06  
**Pure substance/mixture** Mixture

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

**Recommended Use** Use as laboratory reagent  
**Uses advised against** No Information available

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

**Manufacturer/Supplier** Cole-Parmer™  
North America  
625 East Bunker Court  
Vernon Hills, IL  
60061 USA  
Tel: 1-800-323-4340

**E-mail address** [info@coleparmer.com](mailto:info@coleparmer.com)

**Made in** USA

**1.4. Emergency telephone number** 24 Hour Emergency Phone Number  
CHEMTREC®  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: 1-703-527-3887  
(collect calls accepted)

**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****Classification - Mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

|  |                     |
|--|---------------------|
| <b>Skin corrosion/irritation</b>         | Category 1 - (H314) |
| <b>Serious eye damage/eye irritation</b> | Category 1 - (H318) |

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

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

**Symbol(s)**

C - Corrosive

**R-code(s)**

C;R35

**2.2. Label elements****Product Identifier****Signal Word**

Danger

**Hazard Statements**

H314 - Causes severe skin burns and eye damage  
Contains Pepsin EUH208 - May produce an allergic reaction  
EUH210 - Safety data sheet available on request

**Precautionary Statements**

P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P321 - Specific treatment (see supplemental first aid instructions on this label)  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P280 - Wear eye protection/ face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/physician  
P202 - Do not handle until all safety precautions have been read and understood

**2.3. Other hazards**

No information available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1. Substances**

| Component         | Chemical Formula         | EC-No.            | CAS-No    | Weight %  | DSD Classification - 67/548/EEC       | CLP Classification - Regulation (EC) No 1272/2008                                       | REACH Reg. No            |
|-------------------|--------------------------|-------------------|-----------|-----------|---------------------------------------|---|--------------------------|
| Water             | No information available | EEC No. 231-791-2 | 7732-18-5 | 90 - 100% | -                                     |   | No information available |
| Pepsin            | No information available | EEC No. 232-629-3 | 9001-75-6 | 0 - 10%   | Xi; R36/37/38<br>R42                  | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Resp. Sens. 1 (H334)<br>STOT SE 3 (H335) | No information available |
| Hydrochloric Acid | No information available | EEC No. 231-595-7 | 7647-01-0 | 0 - 10%   | T; R23<br>C; R35<br>C; R34<br>Xi; R37 | Acute Tox. 3 (H331)<br>Skin Corr. 1A (H314)<br>Press. Gas                               | No information available |
| Methylparaben     | No information available | EEC No. 202-785-7 | 99-76-3   | 0 - 10%   | -                                     |   | No information available |

**Note** \*The exact percentage (concentration) of composition has been withheld as a trade secret

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

Full text of H- and EUH-phrases: see section 16

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures**

|                                   |   |
|-----------------------------------|---|
| <b>General Advice</b>             | Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.   |
| <b>Eye Contact</b>                | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.  |
| <b>Skin Contact</b>               | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.  |
| <b>Inhalation</b>                 | Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, obtain medical attention.   |
| <b>Ingestion</b>                  | Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately.   |
| <b>Protection of First-aiders</b> | Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

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

**Most important symptoms/effects** No information available

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

**Notes to Physician** Treat symptomatically

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available

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

Thermal decomposition can lead to release of irritating gases and vapors.

**5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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

**Personal Precautions** Use personal protective equipment. Evacuate personnel to safe areas.

**6.2. Environmental precautions**

**Environmental Precautions** Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### Reference to Other Sections

Refer to protective measures listed in Sections 7 and 8

See Section 8 for information on appropriate personal protective equipment

See Section 12 for additional Ecological Information

See Section 13 for additional waste treatment information

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### Advice on safe handling

To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation, especially in confined areas.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

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

#### Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from direct sunlight.

### 7.3. Specific end use(s)

#### Specific Use

Laboratory reagent

#### Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

| Component                      | European Union   | The United Kingdom   | France   | Spain  | Germany  |
|--------------------------------|--|--|--|--|--|
| Hydrochloric Acid<br>7647-01-0 | TWA: 5 ppm 8 hr<br>TWA: 8 mg/m <sup>3</sup> 8 hr<br>STEL: 10 ppm 15 min<br>STEL: 15 mg/m <sup>3</sup> 15 min   | STEL: 5 ppm 15 min<br>STEL: 8 mg/m <sup>3</sup> 15 min<br>TWA: 1 ppm 8 hr<br>TWA: 2 mg/m <sup>3</sup> 8 hr | STEL / VLCT: 5 ppm.<br>STEL / VLCT: 7.6 mg/m <sup>3</sup> .              | STEL / VLA-EC: 10 ppm (15 minutos).<br>STEL / VLA-EC: 15 mg/m <sup>3</sup> (15 minutos).<br>TWA / VLA-ED: 5 ppm (8 horas)<br>TWA / VLA-ED: 7.6 mg/m <sup>3</sup> (8 horas) | TWA: 2 ppm (8 Stunden). AGW - exposure factor 2<br>TWA: 3 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2<br>TWA: 2 ppm (8 Stunden). MAK<br>TWA: 3.0 mg/m <sup>3</sup> (8 Stunden). MAK<br>Höhepunkt: 4 ppm<br>Höhepunkt: 6 mg/m <sup>3</sup> |
| Component                      | Italy  | Portugal   | The Netherlands  | Finland  | Denmark  |
| Hydrochloric Acid<br>7647-01-0 | TWA: 5 ppm 8 ore.<br>TWA: 8 mg/m <sup>3</sup> 8 ore.<br>STEL: 10 ppm 15 minuti. Breve termine<br>STEL: 15 mg/m <sup>3</sup> 15 minuti. Breve termine | STEL: 10 ppm 15 minutos<br>STEL: 15 mg/m <sup>3</sup> 15 minutos<br>Ceiling: 2 ppm<br>TWA: 5 ppm 8 horas   | STEL: 15 mg/m <sup>3</sup> 15 minuten<br>TWA: 8 mg/m <sup>3</sup> 8 uren | STEL: 5 ppm 15 minuutteina<br>STEL: 7.6 mg/m <sup>3</sup> 15 minuutteina   | Ceiling: 5 ppm<br>Ceiling: 8 mg/m <sup>3</sup>   |

| Component                      | Austria  | Switzerland  | Poland   | Norway   | Ireland  |
|--------------------------------|--|--|--|--|--|
| Hydrochloric Acid<br>7647-01-0 | MAK-KZW: 10 ppm 15 Minuten<br>MAK-KZW: 15 mg/m <sup>3</sup> 15 Minuten<br>MAK-TMW: 5 ppm 8 Stunden<br>MAK-TMW: 8 mg/m <sup>3</sup> 8 Stunden | TWA: 8 mg/m <sup>3</sup> 8 horas<br>STEL: 4 ppm 15 Minuten<br>STEL: 6 mg/m <sup>3</sup> 15 Minuten<br>TWA: 2 ppm 8 Stunden<br>TWA: 3.0 mg/m <sup>3</sup> 8 Stunden | STEL: 10 mg/m <sup>3</sup> 15 minutach<br>TWA: 5 mg/m <sup>3</sup> 8 godzinach | Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> | TWA: 5 ppm 8 hr.<br>TWA: 8 mg/m <sup>3</sup> 8 hr.<br>STEL: 10 ppm 15 min<br>STEL: 15 mg/m <sup>3</sup> 15 min |

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

**8.2. Exposure controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

**Eye/face Protection** Wear chemical splash goggles. If splashes are likely to occur, wear: Face-shield.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory Protection** No protective equipment is needed under normal use conditions. In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls** No information available

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

**Physical State** Liquid  
**Appearance** Clear / slight yellow  
**Odor** Slight  
**Odor Threshold** No information available  
**pH Range** -0.3 - 2.7

| Property                     | Values                   | Remarks • Method |
|------------------------------|--------------------------|------------------|
| Melting point/freezing point | No information available |                  |
| Boiling Point/Range          | > 120 °C / 248 °F        |                  |
| Flash Point (High in °C)     | No information available |                  |
| Evaporation Rate             | No information available |                  |
| Flammability (solid, gas)    | No information available |                  |
| Flammability Limit in Air    |                          |                  |
| Upper flammability limit:    | No information available |                  |
| Lower flammability limit:    | No information available |                  |
| Vapor pressure               | No information available |                  |
| Vapor Density                | No information available |                  |
| Specific Gravity             | No information available |                  |
| Water Solubility             | soluble                  |                  |
| Solubility in other solvents | No information available |                  |
| Partition coefficient        | No information available |                  |
| Autoignition Temperature     |                          |                  |
| Decomposition Temperature    | No information available |                  |
| Kinematic Viscosity          | No information available |                  |
| Dynamic viscosity            | No information available |                  |
| Explosive Properties         | No information available |                  |

**Oxidizing Properties** No information available

**9.2. Other information**

**Softening Point** No information available  
**Molecular Weight** No information available  
**VOC Content(%)** No information available  
**Density** No Information available  
**Bulk Density** No information available

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

No information available

**10.2. Chemical stability**

Stable under normal conditions

**Explosion Data**

Sensitivity to Mechanical Impact None  
 Sensitivity to Static Discharge None

**10.3. Possibility of hazardous reactions**

None under normal processing

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight

**10.5. Incompatible materials**

No information available

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapors

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

**Acute Toxicity**

**Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**Inhalation** No information available  
**Eye Contact** No information available  
**Skin Contact** No information available  
**Ingestion** No information available

**Unknown Acute Toxicity** 1% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (inhalation-dust/mist)** 125.25 mg/L

| Component         | LD50 Oral               | LD50 Dermal             | LC50 Inhalation         |
|-------------------|-------------------------|-------------------------|-------------------------|
| Water             | > 90 mL/kg ( Rat )      |                         |                         |
| Hydrochloric Acid | 238 - 277 mg/kg ( Rat ) | > 5010 mg/kg ( Rabbit ) | = 1.68 mg/L ( Rat ) 1 h |
| Methylparaben     | 2100 mg/kg ( Rat )      |                         |                         |

**Skin Corrosion/Irritation** No information available

**Serious eye damage/eye irritation** No information available

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Sensitization</b>            | No information available |
| <b>Mutagenic Effects</b>        | No information available |
| <b>Carcinogenic effects</b>     | No information available |
| <b>Reproductive Effects</b>     | No information available |
| <b>STOT - single exposure</b>   | No information available |
| <b>STOT - repeated exposure</b> | No information available |
| <b>Aspiration hazard</b>        | No information available |

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

1.6% of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Component         | Freshwater Algae | Freshwater Fish                                | Water Flea |
|-------------------|------------------|--|------------|
| Hydrochloric Acid | -                | 282: 96 h Gambusia affinis mg/L<br>LC50 static | -          |

**12.2. Persistence and degradability**

No information available

**12.3. Bioaccumulative potential**

No information available

**12.4. Mobility in soil**

No information available

**12.5. Results of PBT and vPvB assessment**

No information available

**12.6. Other adverse effects**

No information available

**Endocrine Disruptor Information**

No information available

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

**Waste from Residues / Unused Products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Improper disposal or reuse of this container may be dangerous and illegal.

**SECTION 14: TRANSPORT INFORMATION**

**IMDG/IMO**

|                                  |                   |
|----------------------------------|-------------------|
| <b>14.1 UN-No</b>                | UN1789            |
| <b>14.2 Proper Shipping Name</b> | HYDROCHLORIC ACID |



|  |                                  |
|--|----------------------------------|
| <b>14.3 Hazard Class</b>   | 8                                |
| <b>Subsidiary Hazard Class</b>   | Not Regulated                    |
| <b>14.4 Packing Group</b>  | II                               |
| <b>Description</b>   | UN1789, Hydrochloric acid, 8, II |
| <b>14.5 Marine Pollutant</b>   | Not Applicable                   |
| <b>14.6 Special Provisions</b>   | None                             |
| <b>EmS No.</b>   | F-A, S-B                         |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | No information available         |

**RID**

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>14.1 UN-No</b>                | UN1789                           |
| <b>14.2 Proper Shipping Name</b> | HYDROCHLORIC ACID                |
| <b>14.3 Hazard Class</b>         | 8                                |
| <b>ADR/RID-Labels</b>            | 8                                |
| <b>14.4 Packing Group</b>        | II                               |
| <b>Description</b>               | UN1789, Hydrochloric acid, 8, II |
| <b>14.5 Environmental hazard</b> | Not Applicable                   |
| <b>Classification Code</b>       | C1                               |
| <b>14.6 Special Provisions</b>   | None                             |

**ADR**

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>14.1 UN-No</b>                | UN1789                           |
| <b>14.2 Proper Shipping Name</b> | HYDROCHLORIC ACID                |
| <b>14.3 Hazard Class</b>         | 8                                |
| <b>ADR/RID-Labels</b>            | 8                                |
| <b>14.4 Packing Group</b>        | II                               |
| <b>Description</b>               | UN1789, Hydrochloric acid, 8, II |
| <b>14.5 Environmental hazard</b> | Not Applicable                   |
| <b>14.6 Special Provisions</b>   | None                             |
| <b>Classification Code</b>       | C1                               |
| <b>Tunnel restriction code</b>   | (E)                              |

**ICAO**

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>14.1 UN-No</b>                | UN1789                           |
| <b>14.2 Proper Shipping Name</b> | HYDROCHLORIC ACID                |
| <b>14.3 Hazard Class</b>         | 8                                |
| <b>Subsidiary Hazard Class</b>   | Not Regulated                    |
| <b>14.4 Packing Group</b>        | II                               |
| <b>Description</b>               | UN1789, Hydrochloric acid, 8, II |
| <b>14.5 Environmental hazard</b> | Not Applicable                   |
| <b>14.6 Special Provisions</b>   | None                             |

**IATA**

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>14.1 UN-No</b>                | UN1789                           |
| <b>14.2 Proper Shipping Name</b> | HYDROCHLORIC ACID                |
| <b>14.3 Hazard Class</b>         | 8                                |
| <b>14.4 Packing Group</b>        | II                               |
| <b>Description</b>               | UN1789, Hydrochloric acid, 8, II |
| <b>14.5 Environmental hazard</b> | Not Applicable                   |
| <b>14.6 Special Provisions</b>   | None                             |
| <b>ERG Code</b>                  | 8L                               |

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

|                      |                 |
|----------------------|-----------------|
| <b>USINV</b>         | Complies        |
| <b>CANINV</b>        | Complies        |
| <b>EINECS/ELINCS</b> | Complies        |
| <b>ENCS</b>          | Does not Comply |
| <b>IECSC</b>         | Complies        |
| <b>KECL</b>          | Complies        |
| <b>PICCS</b>         | Complies        |
| <b>AICS</b>          | Complies        |

**USINV/ TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**CANINV/ DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japanese Existing and New Chemical Substances  
**IECSC** - Chinese Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

**SECTION 16: OTHER INFORMATION**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

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

- R42 - May cause sensitization by inhalation
- R34 - Causes burns
- R35 - Causes severe burns
- R23 - Toxic by inhalation
- R37 - Irritating to respiratory system
- R36/37/38 - Irritating to eyes, respiratory system and skin

**Full text of H-Statements referred to under section 3**

- H331 - Toxic if inhaled
- H314 - Causes severe skin burns and eye damage
- 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

**Legend - SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

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**Revision Date** 18-May-2015

**Expiration Date** SDS is valid 3 years from the revision date. Contact info@coleparmer.com for the latest revision.

**Reason for revision** Update to CLP Format

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

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**