Safety Data Sheet

Electrode cleaner (9891)

1. Identification of the substance / preparation and the company / undertaking

Use of the substance / preparation: Cleaning / maintenance of pH electrodes.

Chemical characterization: Aqueous solution containing inorganic components.

Product code: 51 340 068, 51 340 069, 51 319 041

Supplier: Mettler-Toledo AG
Process Analytics
Im Hackacker 15
CH-8902 Urdorf
Switzerland
Tel: +41-44-729 62 11
Fax: +41-44-729 66 36

Emergency telephone number: +41-44-251 51 51 (Tox Center)

Revision date: 04.07.2006

Number: 2

2. Composition / information on ingredients

Hazardous components: Hydrochloric acid 25 %, (<2 %), [C, R-34-37], EU No. 017-002-01-X, EINECS No. 231-595-7
Pepsin (0.2 %), [Xn, R-36/37/38-42], CAS No. 64-19-7, EU No. 607-002-00-6, EINECS No. 200-580-7
3. **Hazards identification**

No hazards to be especially mentioned.

4. **First aid measures**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No special measures required.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Wash off with soap and water.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Immediately give large quantities of water to drink. Consult a physician for severe cases.</td>
</tr>
</tbody>
</table>

5. **Fire-fighting measures**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
<td>No special measures required.</td>
</tr>
<tr>
<td>Extinguishing media which must not be used for safety reasons</td>
<td>None.</td>
</tr>
<tr>
<td>Specific hazards</td>
<td>The product is not flammable.</td>
</tr>
<tr>
<td>Special protective equipment for firefighters</td>
<td>Standard procedure for chemical fires.</td>
</tr>
</tbody>
</table>

6. **Accidental release measures**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Sweep up to prevent slipping hazard.</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>Do not flush into surface water or sanitary sewer system.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Flush with water.</td>
</tr>
</tbody>
</table>

7. **Handling and storage**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling</td>
<td>When using, do not eat, drink or smoke. Practice care and caution to avoid skin contact and inhalation of vapours or mists if generated.</td>
</tr>
<tr>
<td>Storage</td>
<td>Keep containers tightly closed.</td>
</tr>
</tbody>
</table>
8. Exposure controls / personal protection

Engineering measures to reduce exposure

Avoid contact with clothing.

Personal protection equipment:
Respiratory protection

In case of good ventilation no personal respiratory protective equipment required.

Hand protection

Gloves.

Eye protection

Safety glasses.

9. Physical and chemical properties

Form

Liquid.

Colour

Colourless. Clear.

Odour

None.

Physical and chemical properties

pH: 1
Boiling point/range: > 100 °C
Relative density: ~1 g/ml
Flash point: does not ignite
Water solubility: completely miscible

10. Stability and reactivity

Stability

Stable under recommended storage conditions.

Conditions to avoid

Vapours in contact with fire or red-hot surfaces may form decomposition products with highly irritating and warning effects.

Materials to avoid

Incompatible with bases. Corrodes base metals.

Hazardous decomposition products

Hydrogen chloride gas.
11. Toxicological information

**Acute toxicity**
Hydrogen chloride:
- LC50/inhalation/1h/rat = 3124 ppm.
- LC50/inhalation/1h/mouse = 1108 ppm.

**Local effects**
Extremely corrosive and destructive to tissue.

**Long term toxicity**
Chronic intensive skin contact may cause dermatitis.

**Sensitization**
None.

**Further information**
No persistent or cumulative effects were observed.

12. Ecological information

**Ecotoxicity**
Wastewater from subsequent processing should be given appropriate treatment in line with local regulations.
- LC50/24h/goldfish = 562 mg/l.

**Mobility**
No data is available on the product itself.

**Bioaccumulation**
Does not bioaccumulate.

13. Disposal considerations

**Waste from residues / unused products**
Taking into account local regulations the product may be disposed of as wastewater after neutralisation.
- European Waste catalogue code (EWC-code): 06 03 14.

**Contaminated packaging**
Offer rinsed packaging material to local recycling facilities.

14. Transport information

**Further information**
Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

**Regulatory information**
The product does not need to be labelled in accordance with EC-Directive 1999/45. Contains: Pepsin. May produce an allergic reaction.
Symbol(s)  None.
R-phrase(s) None.
S-phrase(s) S25: Avoid contact with eyes.

16. Other information

Recommended use For industrial application only.

Text of R phrases mentioned in section 2

| R34: Causes burns. |
| R36/37/38: Irritating to eyes, respiratory system and skin. |
| R37: Irritating to respiratory system. |
| R42: May cause sensitization by inhalation. |

End use

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. It is not to be considered a warranty or quality specification.