

according to the Globally Harmonized System

Cleaning solution Pepsin / HCl

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	Cleaning solution Pepsin / HCl
Synonyms	Electrode cleaner (9891)
Product code	52118030, 30045061, 51350100

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

Use of the Substance/Mixture	Laboratory chemicals
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1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	Mettler-Toledo GmbH Im Langacher 44 CH-8606 Greifensee Switzerland Tel: +41 22 567 53 22 Fax: +41 22 567 53 23 Email: ph.lab.support@mt.com
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1.4. Emergency telephone number	(24-Hour-Number): GBK GmbH +49 6132 84463
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Issuing date	05.03.2018
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Version	GHS 2
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008	Skin corrosion/irritation, Cat. 1, H314
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Additional information	For the full text of the phrases mentioned in this Section, see Section 16.
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2.2. Label elements

**Signal Word**

Danger

Hazard Statements

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/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental information

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

Product identifier

Hydrochloric acid, CAS-No. 7647-01-0, EC-No. 231-595-7
Pepsin A, CAS-No. 9001-75-6, EC-No. 232-629-3

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Solution.

Components		CLP Classification	Product identifier
Deionised water	95% - 99%		CAS-No.: 7732-18-5 EC-No.: 231-791-2
Hydrochloric acid	0.1% - 0.5%	Skin Corr. 1B H314, STOT SE 3 H335 [CSk1B: C ≥ 25 % CSk2: 10 % ≤ C < 25 % CEy2: 10 % ≤ C < 25 % SSEIn3: C ≥ 10 %]	CAS-No.: 7647-01-0 EC-No.: 231-595-7 Index-No: 017-002-01-X
Pepsin A	< 0.5%	Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315, Resp. Sens. 1 H334	CAS-No.: 9001-75-6 EC-No.: 232-629-3 Index-No: 647-008-00-6

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours or decomposition products. Consult a physician for severe cases.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Ingestion	Rinse mouth. Consult a physician for severe cases.

4.2. Most important symptoms and effects, both acute and delayed	If you feel unwell, seek medical advice (show the label where possible).
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4.3. Indication of any immediate medical attention and special treatment needed	None known.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.
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Extinguishing media which must not be used for safety reasons	None.
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5.2. Special hazards arising from the substance or mixture	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.
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5.3. Advice for firefighters

Special protective equipment for firefighters	Standard procedure for chemical fires. In the event of fire, wear self-contained breathing apparatus. Wear protective suit.
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Specific methods	Water mist may be used to cool closed containers.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

Ensure adequate ventilation. Use personal protective equipment. Sweep up to prevent slipping hazard. Avoid contact with skin and eyes.

Advice for emergency responders

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment. Sweep up to prevent slipping hazard.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

6.4. Reference to other sections

See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Store in original container. Storage class 10-13.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)

No data is available on the product itself.

Hydrochloric acid (CAS 7647-01-0)	
EU - Occupational Exposure (2000/39/EC) - First List of Indicative Occupational Exposure Limit Values - TWAs	5 ppm TWA 8 mg/m3 TWA
EU - Occupational Exposure (2000/39/EC) - First List of Indicative Occupational Exposure Limit Values - STELS	10 ppm STEL 15 mg/m3 STEL
United Kingdom - Workplace Exposure Limits (WELs) - STELS	5 ppm STEL (aerosol mist and gas) 8 mg/m3 STEL (aerosol mist and gas)
United Kingdom - Workplace Exposure Limits (WELs) - TWAs	1 ppm TWA (aerosol mist and gas) 2 mg/m3 TWA (aerosol mist and gas)
U.S. - OSHA - Vacated PELs - Ceilings	5 ppm Ceiling 7 mg/m3 Ceiling

U.S. - OSHA - Final PELs - Ceiling Limits	5 ppm Ceiling 7 mg/m3 Ceiling
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8.2. Exposure controls

Appropriate engineering controls Avoid contact with skin, eyes and clothing.

Personal protection equipment

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection Gloves made of Nitril. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Break through time: > 4 h. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection Safety glasses with side-shields conforming to EN166.

Skin and body protection Long sleeved clothing.

Thermal hazards No special measures required.

Environmental exposure controls Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	None.
Odour Threshold	Not determined.
pH:	1
Melting point/range:	Not determined.
Boiling point/range:	Not determined.
Flash point:	Not determined.
Evaporation Rate:	Not determined.
Flammability:	Not determined.
Explosion limits:	Not determined.
Vapour pressure:	Not determined.
Vapor density:	Not determined.
Relative density:	Not determined.
Water solubility:	completely miscible
Partition coefficient (n-octanol/water):	Not determined.
Autoignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Not determined.
Explosive properties:	not hazardous



Oxidising properties: None

9.2. Other information

General Product Characteristics No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Not required.
10.5. Incompatible materials	None.
10.6. Hazardous decomposition products	None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data is available on the product itself. Deionised water (CAS 7732-18-5) Oral LD50 Rat > 90 mL/kg (FOOD_JOURN) Hydrochloric acid (CAS 7647-01-0) Dermal LD50 Rabbit > 5010 mg/kg (JAPAN_GHS) Inhalation LC50 Rat = 1.68 mg/L 1 h(JAPAN_GHS) Oral LD50 Rat 238 - 277 mg/kg (JAPAN_GHS)
Skin corrosion/irritation	Corrosive.
Serious eye damage/eye irritation	Corrosive.
Respiratory / Skin Sensitisation	May cause sensitization of susceptible persons by skin contact.
Carcinogenicity	No data available.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.

Aspiration hazard	No data available.
Human experience	No data available.
Information on likely routes of exposure	dermal
Symptoms related to the physical, chemical and toxicological characteristics	May cause eye/skin irritation.
Other information	The product contains no substances which at their given concentration, are considered to be hazardous to health.

SECTION 12: Ecological information

12.1. Toxicity	No data is available on the product itself. May change pH of waters.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Other adverse effects	No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

ADR/RID	UN 3264. Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid). Class 8. Packing group III. ADR/RID-Labels 8. Classification code C1. Hazard identification no. 80. Limited quantity 5 L. Excepted quantity E1. Tunnel restriction code E
IMDG	UN 3264. Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid). Class 8. Packing group III. IMDG-Labels 8. Limited quantity 5 L. Excepted quantity E1. EmS F-A, S-B. Marine pollutant: No.
IATA	UN 3264. Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid). Class 8. Packing group III. IATA label 8. Packing instruction (passenger aircraft): 852 (5 L). Packing instruction (LQ): Y841 (1 L). Packing instruction (cargo aircraft): 856 (60 L).
Inland navigation ADN	UN 3264. Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid). Class 8. Packing group III. ADN labels 8. Classification code C1. Limited quantity 5 L. Excepted quantity E1.
Further Information	None.

SECTION 15: Regulatory information

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

Regulatory Information	The product is classified and labelled according to Regulation (EC) No. 1272/2008.
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Deionised water (CAS 7732-18-5)
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Inventory - United States - Section 8(b) Inventory (TSCA)	Present (ACTIVE)
U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical Data Reporting Rule - Fully Exempt Substances	Present (listed under Certain forms of natural gas and water)
Hydrochloric acid (CAS 7647-01-0)	
EU - Narcotics (2015/1011) - Implementing Export Requirements - Annual Maximum Export Quantities for Exemption	100 kg
EU - Narcotics (111/2005) - Implementing Export Requirements - Scheduled Substances	Category 3 Substance ([2806 10 00])
EU - Biocides (98/8/EC) - Annex I - Active Substances - Minimum Purity	999 g/kg 2 (listed under EC Number 231-595-7)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Specific Provisions	Member States shall assess, where relevant for the particular product, those uses or exposure scenarios and those risks to human populations and to environmental compartments that have not been representatively addressed in the Union level risk assessment. Member States shall ensure that authorisations of products for non-professional use are subject to the packaging being designed to minimize user exposure, unless it can be demonstrated in the application for product authorisation that risks for human health can be reduced to acceptable levels by other means (listed under EC Number 231-595-7)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Product Type	Product type 2 (listed under EC Number 231-595-7)
EU - Biocides (528/2012/EU) - Active Substances	2 - Disinfectants and algacides not intended for direct application to humans or animals (Commission Directive 2012/16/EU)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Expiry Dates	Expiration date: April 30, 2024 Product type 2 (listed under EC Number 231-595-7)
EU - REACH (1907/2006) - List of Registered Intermediates	Present ([231-595-7])
EU - REACH (1907/2006) - List of Registered Substances	Present
Inventory - United States - Section 8(b) Inventory (TSCA)	Present (ACTIVE)
UN (United Nations) - Convention on Illicit Traffic in Narcotics & Psychotropics - Table II Substances	Present
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities	5000 lb final RQ 2270 kg final RQ
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	500 lb TPQ (gas only)
U.S. - CERCLA/SARA - Section 313 - Emission Reporting	1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	5000 lb EPCRA RQ (gas only)
U.S. - CPSC (Consumer Product Safety Commission) - Specially Regulated Substances	Add POISON to label, 16 CFR 1500.129 ($\geq 10\%$ free or chemically unneutralized)



U.S. - FIFRA - Listing of Pesticide Chemicals (40 CFR 180)	Section number 180.910
U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical Data Reporting Rule - Ineligible Substances	Section 4
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)	Category IIa
U.S. - California - Occupational Exposure Limits - PELs	0.3 ppm PEL 0.45 mg/m ³ PEL
U.S. - California - Occupational Exposure Limits - Ceilings	2 ppm Ceiling
Pepsin A (CAS 9001-75-6)	
Inventory - United States - Section 8(b) Inventory (TSCA)	Present [XU]

15.2. Chemical safety assessment

Not required.

SECTION 16: Other information

Revision Note

Safety datasheet sections which have been updated: 1-16.

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)

Key literature references and sources for data

Information taken from reference works and the literature.

Classification procedure

Calculation method.

Full text of phrases referred to under sections 2 and 3

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.

Disclaimer

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.