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# Safety Data Sheet

## Reactivation solution (9895)

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

<b>Use of the substance / preparation</b>	Cleaning / maintenance of pH electrodes.
<b>Chemical characterization</b>	Aqueous solution containing inorganic components.
<b>Product code</b>	51 319 053
<b>Supplier</b>	Mettler-Toledo AG Process Analytics Im Hackacker 15 CH-8902 Urdorf Switzerland Tel: +41-44-729 62 11 Fax: +41-44-729 66 36
<b>Emergency telephone number</b>	+41-44-251 51 51 (Tox Center)
<b>Revision date</b>	09.05.2007
<b>Number</b>	3

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### 2. Composition / information on ingredients

<b>Hazardous components</b>	Hydrochloric acid 37 %, (10-15 %), [C, R-34-37], EU No. 017-002-01-X, EINECS No. 231-595-7 Hydrofluoric acid 38-40 %, (<5 %), [T+;C, R-26/27/28-35], CAS No. 7664-39-3, EU No. 009-003-00-1, EINECS No. 231-634-8
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### 3. Hazards identification

Toxic by inhalation, in contact with skin and if swallowed.  
Causes burns.

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### 4. First aid measures

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

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### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	No special measures required.
<b>Extinguishing media which must not be used for safety reasons</b>	None.
<b>Specific hazards</b>	The product is not flammable.
<b>Special protective equipment for firefighters</b>	Standard procedure for chemical fires.

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### 6. Accidental release measures

<b>Personal precautions</b>	Sweep up to prevent slipping hazard.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up</b>	Flush with water.

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### 7. Handling and storage

<b>Handling</b>	Ingestion, exposure to skin and eyes and inhalation of any generated vapours should be avoided. When using, do not eat, drink or smoke.
<b>Storage</b>	Keep containers tightly closed.

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## 8. Exposure controls / personal protection

<b>Exposure limit(s)</b>	OEL value: 1,8 ppm; 1,5 mg/m <sup>3</sup> (Hydrogen fluoride) OEL value: 7.5 mg/m <sup>3</sup> (Hydrogen chloride) [Embryotoxic substance (group C): there is no reason to fear poisoning of the fetus as long as the exposure is below the OEL value]
<b>Engineering measures to reduce exposure</b>	Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.
<b>Personal protection equipment: Respiratory protection</b>	In case of good ventilation no personal respiratory protective equipment required.
<b>Hand protection</b>	Gloves.
<b>Eye protection</b>	Tightly fitting safety goggles.
<b>Skin and body protection</b>	Chemical resistant apron.

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## 9. Physical and chemical properties

<b>Form</b>	Liquid.
<b>Colour</b>	Colourless. Clear.
<b>Odour</b>	Stinging.
<b>Physical and chemical properties</b>	pH: -- Boiling point/range: > 100 °C Relative density: ~1 g/ml. Flash point: does not ignite Water solubility: completely miscible

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## 10. Stability and reactivity

<b>Stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Direct heating, dirt, chemical contamination, sunlight, UV or ionizing radiation.
<b>Materials to avoid</b>	Incompatible with bases. Gives off hydrogen by reaction with metals.
<b>Hazardous decomposition products</b>	Hydrogen fluoride. Hydrogen chloride gas.

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## 11. Toxicological information

<b>Acute toxicity</b>	<b>Hydrogen fluoride:</b> LC50/inhalation/1h/rat = 1270 ppm. LC50/inhalation/1h/mouse = 342 ppm.  <b>Hydrogen chloride:</b> LC50/inhalation/1h/rat = 3124 ppm. LC50/inhalation/1h/mouse = 1108 ppm.
<b>Local effects</b>	Extremely corrosive and destructive to tissue.
<b>Long term toxicity</b>	Chronic intensive skin contact may cause dermatitis.
<b>Sensitization</b>	None.
<b>Further information</b>	Toxic if swallowed. Causes burns.

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## 12. Ecological information

<b>Ecotoxicity</b>	Wastewater from subsequent processing should be given appropriate treatment in line with local regulations.
<b>Mobility</b>	No data is available on the product itself.

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## 13. Disposal considerations

<b>Waste from residues / unused products</b>	Taking into account local regulations the product may be disposed of as wastewater after neutralisation. European Waste catalogue code (EWC-code): 06 03 14.
<b>Contaminated packaging</b>	Offer rinsed packaging material to local recycling facilities.

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## 14. Transport information

<b>ADR/RID</b>	Proper shipping name: Corrosive liquid, toxic, n.o.s. (Hydrochloric acid, Hydrofluoric acid).
	UN No.: 2922.
	Kemler code: 86.
	Class: 8.
	Packing group: II.
	ADR/RID-Labels: 8/6.1.

<b>IMO</b>	Proper shipping name:	Corrosive liquid, toxic, n.o.s. (Hydrochloric acid, Hydrofluoric acid).
	UN No.:	2922.
	Class:	8.
	Packing group:	II.
	IMO-Labels:	8+6.1.
	Marine pollutant:	mp.
	EMS:	8-15.
<b>IATA</b>	Proper shipping name:	Corrosive liquid, toxic, n.o.s. (Hydrochloric acid, Hydrofluoric acid).
	UN No.:	2922.
	Class:	8.
	Packing group:	II.
	IATA-Labels:	8/6.1.

## 15. Regulatory information

<b>Regulatory information</b>	The product is classified and labelled in accordance with EC directives or respective national laws.	
<b>Symbol(s)</b>	C - Corrosive. T - Toxic.	
<b>R-phrase(s)</b>	R23/24/25:	Toxic by inhalation, in contact with skin and if swallowed.
	R34:	Causes burns.
<b>S-phrase(s)</b>	S7:	Keep container tightly closed.
	S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28:	After contact with skin, wash immediately with plenty of water.
	S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
	S45:	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## 16. Other information

### Recommended use

For industrial application only.

### Text of R phrases mentioned in section 2

R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.  
R34: Causes burns.  
R35: Causes severe burns.  
R37: Irritating to respiratory system.

### 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.

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