

**Conductivity Standard 706  $\mu$ S/cm**

Material number 238929

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**1. Product and company identification****Product identifier**Trade name: Conductivity Standard 706  $\mu$ S/cm**Relevant identified uses of the substance or mixture and uses advised against**

General use: Calibration of conductivity sensors

**Details of the supplier of the safety data sheet**

Company name: HAMILTON Bonaduz AG

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Switzerland

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Dept. responsible for information:

Susanne Näf-Rüdiger,

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**Emergency telephone number**

GIZ-Nord, Germany, Telephone: +49 (0)551-19240

**2. Hazards identification****Emergency overview**

Appearance: Physical state: liquid

Color: colorless

Odor: odorless

**Regulatory status**

This material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

**Information pertaining to special dangers for human and environment**

see section 11: Toxicological information

**3. Composition / Information on ingredients**

Chemical characterization: Aqueous solution of anorganic salts and organic compounds.

Additional information: Contains Glycerol: The maximum workplace exposure limits are expressed in Section 8, as may be required.

**4. First-aid measures**

In case of inhalation: Move victim to fresh air. In case of respiratory difficulties seek medical attention.

In case of skin contact: Remove residues with soap and water.  
Change contaminated clothing. In case of skin reactions, consult a physician.

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After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After swallowing: Rinse mouth and drink large quantities of water. Induce vomiting when the affected person is not unconscious. If you feel unwell, seek medical advice.

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

no data available

**Information to physician**

Treat symptomatically.

**5. Firefighting measures**

Flash point/flash point range:  
approx. 180 °C

Suitable extinguishing media:  
Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

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

In the event of a fire, the following may be produced when the water evaporates: Carbon monoxide and carbon dioxide.

Special protective equipment for firefighters:  
Wear self-contained breathing apparatus. Wear suitable protective clothing.

**6. Accidental release measures**

Personal precautions: Avoid contact with the substance. Do not breathe vapors. Provide adequate ventilation. Remove all sources of ignition.

Environmental measures: Do not allow to penetrate into soil, waterbodies or drains.

Methods for cleaning up: Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.

**7. Handling and storage****Handling**

Advices on safe handling: Avoid contact with skin and eyes. Do not breathe vapors. Provide adequate ventilation.

**Storage**

Requirements for storerooms and containers:  
Keep container tightly closed. Store at room temperature. (Recommendation: 15 - 25 °C)

**Specific use(s)**

Calibration of conductivity sensors

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**8. Exposure controls / personal protection****Exposure guidelines**

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
56-81-5	Glycerol	USA: OSHA: TWA	15 mg/m <sup>3</sup> (total)
		USA: OSHA: TWA	5 mg/m <sup>3</sup> (respirable fraction)

**Engineering controls**

Provide good ventilation and/or an exhaust system in the work area.

See also information in chapter 7, section storage.

Eye protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Body protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material: natural rubber, nitrile rubber, butyl caoutchouc (butyl rubber).

Breakthrough time  $\geq$  480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

**Personal protection equipment**

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

**General protection and hygiene measures**

Change contaminated clothing.

After work, wash hands and face.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Appearance:	Physical state: liquid Color: colorless
Odor:	odorless
pH value:	at 20 °C: approx. 6
Initial boiling point and boiling range:	approx. 120 °C
Flash point/flash point range:	approx. 180 °C
Density:	at 20 °C: approx. 1.2 g/mL
Water solubility:	at 20 °C: soluble

**Additional information**

Ignition temperature: approx. 430 °C

**10. Stability and reactivity**

Reactivity: no data available

Chemical stability: Product is stable under normal storage conditions.

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## Possibility of hazardous reactions

No hazardous reactions known.

## Conditions to avoid:

Protect from excessive heat.

## Materials to avoid:

strong oxidizing agents, nitric acid, sulphuric acid, phosphorus oxides, peroxides, halogens.

## Hazardous decomposition products:

In the event of a fire, the following may be produced when the water evaporates: Carbon monoxide and carbon dioxide.

**11. Toxicological information****Toxicological tests**

## Toxicological effects:

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

**Symptoms**

After ingestion of high quantities: Headache, nausea, inebriation, vomiting, abdominal pain, drowsiness, diarrhea.

**General remarks**

After ingestion of high quantities: Headache, nausea, inebriation, vomiting, abdominal pain, drowsiness, diarrhea.

**12. Ecological information****Additional ecological information**

## General information:

Do not allow to enter into ground-water, surface water or drains.

**13. Disposal considerations****Product**

## Recommendation:

Dispose of waste according to applicable legislation.

**Contaminated packaging**

## Recommendation:

Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## 14. Transport information

### USA: Department of Transportation (DOT)

Proper shipping name: Not controlled under DOT

### Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: No

### Air transport (IATA)

Proper shipping name: Not restricted

### Further information

No dangerous good in sense of these transport regulations.

## 15. Regulatory information

### U.S. Federal Regulations

Glycerol: TSCA Inventory: listed  
TSCA HPVC: not listed  
Clean Air Act:  
SOCMI Chemical: yes  
NIOSH Recommendations:  
Occupational Health Guideline: 0302

### National regulations - EC member states

#### Labeling (67/548/EEC or 1999/45/EC)

Code letter and hazard symbol:

not applicable

R phrase(s): not applicable

S phrase(s): not applicable

### National regulations - Great Britain

Hazchem-Code: -

## 16. Other information

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

Reason of change: General revision

Date of first version: 20.04.2011

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.