

Conductivity Standard 1413 μ S/cm

Material number 238928

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1. Product and company identification**Product identifier**Trade name: Conductivity Standard 1413 μ 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

Street/POB-No.: Via Crusch 8

Postal Code, city: 7402 Bonaduz

Switzerland

WWW: www.hamilton.ch

Telephone: +41 81 660 62 76

Telefax: +41 81 660 60 70

Dept. responsible for information:

Susanne Näf-Rüdiger,

Telephone: +41 81 660 62 76, E-mail SNaef@hamilton.ch

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.

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

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 ³ (total)
		USA: OSHA: TWA	5 mg/m ³ (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.

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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

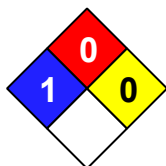
S phrase(s): not applicable

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.