

Conductivity Standard 12880 $\mu\text{S}/\text{cm}$

Material number 238988

Page: 1 of 6

1. Product and company identification**Product identifier**Trade name: Conductivity Standard 12880 $\mu\text{S}/\text{cm}$ **Relevant identified uses of the substance or mixture and uses advised against**

General use: Calibration solution

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.hamiltoncompany.com

Telephone: +41 58 610 10 10

Department responsible for information:

After-sales service

E-mail: techsupport.pa.ch@hamilton.ch**Emergency phone number****GIZ-Nord, Göttingen, Germany,****Telephone: +49 551-19240****2. Hazards identification****Emergency overview**

Appearance: Form: liquid

Color: colorless

Odor: odorless

Classification: This material is classified as not hazardous.

Regulatory status

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

Hazards not otherwise classified

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Aqueous solution

4. First aid measures

In case of inhalation: Move victim to fresh air. Seek medical attention.

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

Conductivity Standard 12880 $\mu\text{S}/\text{cm}$

Material number 238988

Page: 2 of 6

After eye contact: With eyelids open, wash out eyes for several minutes under flowing water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth and drink large quantities of water. If you feel unwell, seek medical advice.

Most important symptoms/effects, acute and delayed

No data available

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

not combustible

Auto-ignition temperature: No data available

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Specific hazards arising from the chemical

Fires in the immediate vicinity may cause the development of dangerous vapors.

Protective equipment and precautions for firefighters:

In case of surrounding fires: Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions: Wear appropriate protective equipment. Avoid contact with skin, eyes, and clothing.

Environmental precautions:

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

Methods for clean-up:

Soak up with absorbent materials such as sand, siliceus 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 prolonged and intensive skin contact.

Specific use(s) calibration solution

Storage

Requirements for storerooms and containers:

Keep container tightly closed. Store at room temperature.

8. Exposure controls / personal protection

Engineering controls

Provide good ventilation and/or an exhaust system in the work area.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

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

Skin 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: > 480 min.

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

Respiratory protection: Provide adequate ventilation.

General hygiene considerations:

Change contaminated clothing.

Wash hands before breaks and after work.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: liquid Color: colorless
Odor:	odorless
Odor threshold:	No data available
pH:	at 68 °F: 4.0 - 8.0
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 212 °F
Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: approx. 1.0 g/mL
Water solubility:	at 68 °F: infinitely soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

Conductivity Standard 12880 µS/cm

Material number 238988

Page: 4 of 6

10. Stability and reactivity

Reactivity: Refer to subsection "Possibility of hazardous reactions".

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:
No hazardous reactions known.

Conditions to avoid: No data available

Incompatible materials: strong acids and alkalis

Hazardous decomposition products:
No decomposition when used properly.

Thermal decomposition: No data available

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.
Serious 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.

12. Ecological information**Ecotoxicity**

Further details: No data available

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: Do not allow to enter undiluted resp. in large quantities into surface water or into drains.

Conductivity Standard 12880 µS/cm

Material number 238988

Page: 5 of 6

13. Disposal considerations**Product**

Recommendation: Dispose of waste according to applicable legislation.

PackageRecommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.**14. Transport information****14.2 UN proper shipping name**

ADR/RID, IMDG, IATA-DGR:

Not restricted

Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

Environmental hazards

Marine pollutant:

no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Proper shipping name:

Not restricted

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**National regulations - U.S. Federal Regulations**

No data available

National regulations - Great Britain

Hazchem-Code:

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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: B

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
B	

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 AS/NZS: Australian Standards/New Zealand Standards
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EN: European Standard
 IATA: International Air Transport Association
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 vPvB: Very persistent and very bioaccumulative

Reason of change: General revision
 Changes in section 1: Poisons information service (Denmark, France, Spain, Russia)
 Date of first version: 3/3/2011

Department issuing data sheet

Contact person: see section 1: Department 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.