

Redox Buffer 271

Material number 238228

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1. Product and company identification**Product identifier**

Trade name: Redox Buffer 271

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

General use: Buffer 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

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Dept. responsible for information:

Susanne Näf-Rüdiger,

Telephone: +41 58 610 12 76, E-mail SNaef@hamilton.ch**Emergency phone number****GIZ-Nord, Germany, Telephone: +49 (0)551-19240****2. Hazards identification****Emergency overview**

Appearance: Form: liquid

Color: brown

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) and SIMDUT in Canada.

Hazards not otherwise classified

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Aqueous solution

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 7553-56-2	Iodine	< 0.2 %	Acute Toxicity - dermal - Category 4. Acute Toxicity - inhalative - Category 4. Aquatic toxicity - acute - Category 1.

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4. First aid measures

- In case of inhalation: Provide fresh air. Seek medical attention.
- Following skin contact: Remove residues with water. Change contaminated clothing.
In case of skin reactions, consult a physician.
- After eye contact: With eyelids open, wash out eyes for several minutes under flowing water.
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: no data available
- 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 suitable protective clothing. Avoid contact with skin and eyes.
- Environmental precautions: Do not allow to penetrate into soil, waterbodies or drains.
- Methods for clean-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 prolonged and intensive skin contact.

Specific use(s) Buffer solution

Storage

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 15 °C and 25 °C.

Unsuitable materials: Metals.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7553-56-2	Iodine	NIOSH: Ceiling	1 mg/m ³ ; 0.1 ppm
		OSHA: Ceiling	1 mg/m ³ ; 0.1 ppm
		USA: ACGIH: STEL	0.1 ppm inhalable fraction and vapor
		USA: ACGIH: TWA	0.01 ppm inhalable fraction and vapor

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: nitrile rubber-Layer thickness: 0,11 mm.
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: With correct and proper use, and under normal conditions, breathing protection is not required.
- General hygiene considerations:
Change contaminated clothing.
Wash hands before breaks and after work.

9. Physical and chemical properties

Information on basic physical and chemical properties

- Appearance: Form: liquid
Color: brown
- Odor: odorless
- Odor threshold: no data available
- pH value: at 20 °C: 4.0 - 8.0
- Melting point/freezing point: no data available
- Initial boiling point and boiling range: approx. 100 °C
- Flash point/flash point range: no data available
- 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 20 °C: approx. 1.3 g/mL
- Water solubility: at 20 °C: soluble
- Partition coefficient: n-octanol/water: no data available

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Auto-ignition temperature: no data available
Thermal decomposition: no data available
Additional information: no data available

10. Stability and reactivity

Reactivity: no data available
Chemical stability: Product is stable under normal storage conditions.
Possibility of hazardous reactions
No hazardous reactions known.
Conditions to avoid: no data available
Incompatible materials: Metals
Hazardous decomposition products:
Fires in the immediate vicinity may cause the development of dangerous vapors.
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.
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

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Persistence and degradability

Further details: no data available

Additional ecological information

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

13. Disposal considerations**Product**

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Contaminated packagingRecommendation: 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**

Iodine:

TSCA Inventory: listed

TSCA HPVC: not listed

NIOSH Recommendations:

Occupational Health Guideline:

0342*

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: B

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
B	

Reason of change: General revision (Regulation (EU) No 2015/830)

Date of first version: 12/14/2010

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.