

# METTLER TOLEDO SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006  
(amended by Regulation (EU) 2020/878)

## Redox Buffer 220 mV / pH 7

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product name** Redox Buffer 220 mV / pH 7  
**Product code** 52118027, 51350060, 51350062

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of the Substance/Mixture** Laboratory chemicals

#### 1.3. Details of the supplier of the safety data sheet

**Company/Undertaking Identification** Mettler-Toledo GmbH  
Im Langacher 44  
CH-8606 Greifensee  
Switzerland  
Tel: +41 22 567 53 22  
Fax: +41 22 567 53 23  
Email: ph.lab.support@mt.com

**1.4. Emergency telephone number** (24-Hour-Number): GBK GmbH +49 6132 84463

**Revision date** 16.08.2022

**Version** GHS 4 (Previous versions: GHS 3)

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008** The substance or mixture is not classified.

In accordance with Regulation (EC) No. 1272/2008, the product does not need to be classified nor labelled.

**Additional information** For the full text of the phrases mentioned in this Section, see Section 16.

## 2.2. Label elements

<b>Signal Word</b>	-
<b>Hazard Statements</b>	None.
<b>Precautionary statements</b>	None.
<b>Supplemental information</b>	EUH208: Contains 2-chloracetamide. May produce an allergic reaction.
<b>Product identifier</b>	None.
<b>2.3. Other hazards</b>	No hazards to be specially mentioned.

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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Buffer solution.

Components		CLP Classification	Product identifier
Deionised water	> 98%	-	CAS-No.: 7732-18-5 EC-No.: 231-791-2
Potassium hexacyanoferrate(II)	0.1% - 0.5%	Aquatic Chronic 3 H412, EUH032	CAS-No.: 13943-58-3 EC-No.: 237-722-2
Potassium hexacyanoferrate(III)	0.1% - 0.5%	Eye Irrit. 2 H319, Aquatic Chronic 2 H411, EUH032	CAS-No.: 13746-66-2 EC-No.: 237-323-3
2-chloracetamide	< 0.1%	Repr. 2 H361 (f), Acute Tox. 3 H301, Skin Sens. 1 H317 [Skin Sens. 1 H317: C ≥ 0,1 %]	CAS-No.: 79-07-2 EC-No.: 201-174-2 Index-No: 616-036-00-0

For the full text of the phrases mentioned in this Section, see Section 16.

**Hazardous impurities** None known.

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapours or decomposition products. Consult a physician for severe cases.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

<b>Ingestion</b>	Rinse mouth. Consult a physician for severe cases.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	If you feel unwell, seek medical advice (show the label where possible).
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	None known.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.

**Unsuitable extinguishing media** None.

**5.2. Special hazards arising from the substance or mixture** The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Standard procedure for chemical fires. In the event of fire, wear self-contained breathing apparatus. Wear protective suit.

**Specific methods** Water mist may be used to cool closed containers.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Ensure adequate ventilation. Use personal protective equipment. Sweep up to prevent slipping hazard. Avoid contact with skin and eyes. Do not breathe vapours/dust.

**For emergency responders** Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment. Sweep up to prevent slipping hazard.

**6.2. Environmental precautions** Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up** Soak up with inert absorbent material. Keep in suitable and closed containers for disposal (Plastic container of HDPE).

**6.4. Reference to other sections** See chapter 8 and 13.

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## SECTION 7: Handling and storage

<b>7.1. Precautions for safe handling</b>	Wear personal protective equipment. Avoid contact with skin and eyes.
<b>7.2. Conditions for safe storage, including any incompatibilities</b>	Store at room temperature in the original container.
<b>7.3. Specific end use(s)</b>	No information available.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Exposure limit(s)</b>	No data is available on the product itself.
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### 8.2. Exposure controls

**Appropriate engineering controls** Avoid contact with skin, eyes and clothing.

#### Personal protection equipment

**Respiratory protection** In case of good ventilation no personal respiratory protective equipment required.

**Hand protection** Gloves made of latex. The selected protective gloves have to satisfy the specifications of Regulation (EU) No. 2016/425 and the standard EN 374 derived from it. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

**Eye protection** Safety glasses with side-shields conforming to EN166.

**Skin and body protection** Long sleeved clothing.

**Thermal hazards** No special measures required.

**Environmental exposure controls** Prevent product from entering surface water or sewage.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Colour</b>	Yellow.
<b>Odour</b>	None.
<b>Melting point/ freezing point:</b>	0 °C

<b>Boiling point or initial boiling point / range:</b>	100 °C
<b>Flammability:</b>	Not determined.
<b>Lower and upper explosion limit:</b>	Not determined.
<b>Flash point:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Not determined.
<b>Decomposition temperature:</b>	Not determined.
<b>pH:</b>	7
<b>Kinematic viscosity:</b>	Not determined.
<b>Solubility:</b>	completely miscible (Water)
<b>Partition coefficient n-octanol/water (log value):</b>	Not determined.
<b>Vapour pressure:</b>	23 hPa (20 °C)
<b>Density and/or relative density:</b>	1
<b>Relative vapour density:</b>	Not determined.
<b>Particle characteristics:</b>	Not applicable.

## 9.2. Other information

**Other safety characteristics** No information available.

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## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	No information available.
<b>10.2. Chemical stability</b>	Stable at normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	Heating can release hazardous gases.
<b>10.4. Conditions to avoid</b>	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
<b>10.5. Incompatible materials</b>	None.
<b>10.6. Hazardous decomposition products</b>	Hydrogen cyanide (hydrocyanic acid). ( [Fe(CN)6]3- <--> [Fe (CN)5 H2O]2- + CN-)

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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Acute toxicity</b>	No data is available on the product itself. <b>Deionised water (CAS 7732-18-5)</b> Oral LD50 Rat > 90 mL/kg (FOOD_JOURN) <b>Potassium hexacyanoferrate(II) (CAS 13943-58-3)</b> Oral LD50 Rat = 3613 mg/kg (IUCLID) <b>2-chloroacetamide (CAS 79-07-2)</b> Dermal LD50 Rat > 2000 mg/kg (ECHA_API) Oral LD50 Rat = 138 mg/kg (NLM_CIP)
<b>Skin corrosion/irritation</b>	No skin irritation.

<b>Serious eye damage/eye irritation</b>	No eye irritation.
<b>Respiratory / Skin Sensitisation</b>	None.
<b>Carcinogenicity</b>	No data available.
<b>Germ cell mutagenicity</b>	No data available.
<b>Reproductive toxicity</b>	No data available.
<b>Specific target organ toxicity (single exposure)</b>	No data available.
<b>Specific target organ toxicity (repeated exposure)</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Human experience</b>	No data available.

## 11.2. Information on other hazards

<b>Information on likely routes of exposure</b>	dermal
<b>Other information</b>	The product contains no substances which at their given concentration, are considered to be hazardous to health.

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## SECTION 12: Ecological information

**12.1. Toxicity** No data is available on the product itself.

### **Potassium hexacyanoferrate(II) (CAS 13943-58-3)**

Ecotoxicity - Freshwater Fish - LC50 96 h *Poecilia reticulata* 19 mg/L [static]  
 Acute Toxicity Data LC50 96 h *Pimephales promelas* >100 mg/L

### **2-chloroacetamide (CAS 79-07-2)**

EU - Ecolabel (66/2010) - Detergent Ingredient Database - Aerobic Degradation The ingredient has not been tested.

EU - Ecolabel (66/2010) - Detergent Ingredient Database - Anaerobic Degradation The ingredient has not been tested.

**12.2. Persistence and degradability** The methods for determining biodegradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential** Bioaccumulation is unlikely.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** No information available.

**12.6. Endocrine disrupting properties** No information available.

**12.7. Other adverse effects** No information available.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Waste from residues / unused products** Offer surplus and non-recyclable solutions to an established disposal company.

**Contaminated packaging** Dispose of as unused product.

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## SECTION 14: Transport information

**14.1. UN number or ID number** Not applicable.

**14.2. UN proper shipping name** Not applicable.

**14.3. Transport hazard class(es)** Not applicable.

**14.4. Packing group** Not applicable.

**14.5. Environmental hazards** Not applicable.

**14.6. Special precautions for user** Not applicable.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable.

### UN Model Regulations

**ADR/RID** Not regulated.

**IMDG** Not regulated.

**IATA** Not regulated.

**Further Information** Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Regulatory Information** In accordance with Regulation (EC) No. 1272/2008, the product does not need to be classified nor labelled.

<b>Potassium hexacyanoferrate(II) (CAS 13943-58-3)</b>	
EU - REACH (1907/2006) - List of Registered Substances	Present
<b>Potassium hexacyanoferrate(III) (CAS 13746-66-2)</b>	
EU - REACH (1907/2006) - List of Registered Substances	Present
<b>2-chloracetamide (CAS 79-07-2)</b>	
TEDX (The Endocrine Disruption Exchange) - Potential Endocrine Disruptors	Present
EU - Cosmetics (1223/2009) - Annex II - Prohibited Substances	Prohibited
EU - Biocides (2007/565/EC) - Substances and Product-Types Not to Be Included in Annexes I, IA and IB to Directive 98/8/EC	Product type: 7 Product type: 9 Product type: 10 Product type: 11 Product type: 3 Product type: 13 Product type: 6
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75.
EU - REACH (1907/2006) - List of Registered Substances	Present

**15.2. Chemical safety assessment**

Not required.

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**SECTION 16: Other information**

<b>Revision Note</b>	Safety datasheet sections which have been updated: 3, 8, 11, 13, 15.
<b>Key or legend to abbreviations and acronyms</b>	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
<b>Key literature references and sources for data</b>	Information taken from reference works and the literature.
<b>Classification procedure</b>	Calculation method.
<b>Full text of phrases referred to under sections 2 and 3</b>	EUH032: Contact with acids liberates very toxic gas. H301: Toxic if swallowed. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H361f: Suspected of damaging fertility. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects.
<b>Instructions for use</b>	For industrial application only.

## Disclaimer

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