

WTW Safety Data Sheet
According to EC Directives 91/155/EEC

1. Identification of the substance/preparation and of the company/undertaking

Product name:

Redox Buffer Solution

Ord. No.: 109 740

Model: RH 28

Manufacturer:

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: +49(0)881 183-0, Fax.: +49(0)881 183-420

Emergency telephone:
(001)-703-527-3887

2. Composition/information on ingredients

Chemical characterization: Aqueous saline solution

Hazardous ingredients: Potassium hexacyanoferrate (II) and (III)

Potassium hexacyanoferrate (II)

Hazard symbols: No hazardous product

R-phrases: 52/53

Content: 0,41 %

CAS-No.: 14459-95-1

EINECS-No.: 237-722-2

Potassium hexacyanoferrate (III)

Hazard symbols: No hazardous product

R-phrases: /

Content: 0,53 %

CAS-No.: 13746-66-2

EINECS-No.: 237-323-3

3. Hazards identification

No hazardous product.

4. First aid measures

After inhalation: Fresh air

After skin contact: Wash off with plenty of water.
Remove contaminated clothing.

After eye contact: Rinse out with plenty of water with the eyelid held wide open.

After ingestion: Drink plenty of water or physiological solution.
Induce vomiting. Summon doctor.

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5. Fire-fighting measures

<i>Suitable extinguishing media:</i>	To suit environment.
<i>Unsuitable extinguishing media:</i>	No information available.
<i>Special risks:</i>	Development of hazardous gases possible in the event of fire: Hydrogen cyanide and nitrous gases
<i>Other information:</i>	Non combustible

6. Accidental release measures

<i>Personal-related precautionary measures:</i>	None
<i>Environmental-protection measures:</i>	Do not allow to enter sewerage system.
<i>Procedures for cleaning/absorption:</i>	Take up with liquid-absorbent material. Forward for disposal. Clean up affected area with water.

7. Handling and storage

<i>Handling:</i>	No further requirements.
<i>Storage:</i>	Store tightly closed. Cool, but not under 10°C. Protected from light.

8. Exposure control/personal protection

<i>Specific control parameters:</i>	None
Personal protective equipment	
<i>Respiratory protection:</i>	Required when dusts are generated.
<i>Eye protection:</i>	Protective glasses
<i>Hand protection:</i>	Gloves (nitrile rubber)
<i>Industrial hygiene:</i>	Wash hands and face after working with substance. Change contaminated clothing.

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9. Physical and chemical properties

<i>Form:</i> Liquid	<i>Colour:</i> Yellow	<i>Odour:</i> Odourless
<i>pH-value</i>	7,00 at 25°C	
<i>Melting temperature:</i>	about 0°C	
<i>Boiling temperature:</i>	about 100°C	
<i>Ignition temperature:</i>	°C	
<i>Flash point:</i>	°C	
<i>Explosion limite lower:</i>	/	
<i>upper:</i>	/	
<i>Density:</i>	ca. 1 g/cm ³	
<i>Solubility in water:</i>	miscible	
<i>Thermal decomposition:</i>	/	

10. Stability and reactivity

<i>Conditions to be avoided:</i>	The salts generate potassium cyanide when heated.
<i>Substances to be avoided:</i>	Acids, oxidizing agents, hydrochloric acid, nitrites, fluorine, ammonia.
<i>Hazardous decomposition products:</i>	hydrogen cyanide
<i>Further information:</i>	None

11. Toxicological information

<i>Acute toxicity:</i>	After ingestion: gastrointestinal symptoms After skin and eye contact: irritations.
<i>Further toxicological information:</i>	After hydrolysis: highly toxic. The following applies to cyanogen compounds/nitriles in general: utmost caution! Release of hydrocyanic acid is possible-blockade of cellular respiration. Cardiovascular disorders, dyspnoea, unconsciousness. The solution should be handled with particular care.

12. Ecological information

<i>Ecotoxic effects:</i>	Hazard for drinking water supplies. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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13. Disposal considerations

Products: There are no uniform regulations for the disposal of chemicals- or residues. The disposal is regulated through corresponding regional laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

Packaging: Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, noncontaminated packaging may be treated like household waste or recycled.

14. Transport information

Not subject to transport regulations.

15. Regulatory information

Labelling according to EC directives

Symbol: No hazardous product

R-phrases: /

S-phrases: /

German regulations

Water pollution class; WGK: 1 Slightly polluting substance

Storage class VCI: 12

Regulation on combustible liquids; VbF: Non combustible.

Other regulations: None

16. Other information

Date of issue: 15.07.2006

Supersedes edition of 22.01.2004

Reason for alteration: General update

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.