

**Material Safety data sheet
(RBS220)****Redox Buffer Solution 220mV**

Version number 1.2 - 2014

1 – Identification of the substance	
Use of the substance / preparation	Buffer Solution For Redox Calibration
Chemical Characteristics	Aqueous Solution containing inorganic components.
Product Code	RBS220mV
Supplier	Automated Water & Effluent LTD. AWE House, Antom Court, Tollgate Industrial Estate, Beaconsfield, Stafford, ST16 3AF Tel:- 01785 254 597 Fax:- 01785 257 724 Email:- sales@awe-ltd.co.uk

2 – Composition / Information on ingredients.	
Hazardous Components	This product contains no products listed as hazardous to health according to EC directive 1907/2006/EC, Article 31. Covering Potassium Ferricyanide and Boric Acid CAS 10043-35-3 / 11113-50-1

3 – Hazards Identification.	
	None NFPA Ratings (Scale 0 – 4): Health = 1 Flammability = 0 Reactivity = 0 Special = 0 HMIS Ratings (Scale: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe) Health = 1 Flammability = 0 Reactivity=0 Prot. Equipment=A (Safety Glasses) (Nitrile Gloves or similar) WHMIS No Hazard Class

4 – First Aid Measures

Inhalation	Provide fresh air, warmth and rest. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Obtain medical attention if any discomfort continues.
Skin Contact	Rinse with Water
Eye Contact	Immediately flush eye(s) with plenty of water for a period of no less than 15 minutes.
Ingestion	Ingestion unlikely. Rinse mouth. Give water to drink. Do not induce vomiting because of corrosive effects. Take to hospital.

5 – Fire Fighting Measures

Suitable Extinguishing Media	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Specific Hazards	The product is not flammable.

6 – Accidental Release Measures

Personal Precautions	Protective gloves – nitrile or similar.
Environmental Precautions	Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
Methods for cleaning up	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 – Handling & Storage

Handling	No special precautions required
Storage	Keep away from children. Store at room temperature in original container.

8 – Exposure Controls / Personal Protection

Exposure Limits	Not available.
Engineering methods to reduce exposure	General industrial hygiene practices.
Personal Protection equipment / Respiratory protection	No personal respiratory equipment normally required. Safety Glasses. Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

9 – Physical and Chemical Properties

Form	Liquid
Colour	As specified.
Physical	pH: N/A. Boiling point / range ~ 100°C Relative Density ~ 1Kg / L Flash point ~ Does not ignite Water Solubility ~ Completely miscible.

10 – Stability and Reactivity

Stability	No decomposition if stored and applied as directed.
Conditions to avoid	Extremes of temperature and sunlight.
Hazardous decomposition products	None.

11 – Toxicological Information

Acute Toxicity	No data is available on the product itself.
	Boric Acid LD50/oral/rat = 5140 mg/kg
	Potassium hexacyanoferrate (III) LD50/oral/rat = 1600 mg/kg
Local Effects	No Data is available on this product itself
Long term toxicity	None
Further Information	The product contains no substances classified as hazardous to health in concentrations which should be taken into account according to EC directive.

12 – Ecological Information

Persistence / degradability	The product contains no substances known to be hazardous to the environment or not degradable in a wastewater treatment plant.
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13 – Disposal Considerations

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated Packaging	Clean container with water. Empty containers should be taken to local recyclers for disposal.

14 – Transport Information Considerations

Further information	Not classified as dangerous in the meaning of transport regulations.
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15 – Regulatory Information

Regulatory Information	Redox buffer 220 mV: Safety, health and environmental
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	<p>regulations/legislation specific for the substance or mixture</p> <p>*National regulations:</p> <p>*Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. *15.2</p> <p>Chemical safety assessment:</p> <p>A Chemical Safety Assessment has not been carried out.</p>
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16 – Other Information	
Recommended use	For industrial application only.
End Use	<p>This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.</p> <p>*Relevant Phrases:</p> <ul style="list-style-type: none"> • H412 Harmful to aquatic life with long lasting effects. • R32 Contact with acids liberates very toxic gas. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. <p>The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.</p> <p>The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.</p>

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