





**Material Safety data sheet**  
**(RBS616mV)**  
**Redox Buffer Solution 616mV**

Version number 1.2 - 2014

<b>1 – Identification of the substance</b>	
Use of the substance / preparation	Buffer Solution For Redox Calibration
Chemical Characteristics	Aqueous Solution containing inorganic components.
Product Code	RBS616mV
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

<b>2 – Composition / Information on ingredients.</b>	
Hazardous Components	<p>This product contains no products listed as hazardous to health according to EC directive 1907/2006/EC, Article 31 and information is supplied as defined in Article 18(3)a of Regulation (EC) 1272/2008 (CLP)</p> <p>GHS 05 Corrosive.            Eye dam.1 H318 – Causes serious eye damage.            GHS 07 Irritant.            Skin Irrit.2 H315 – Causes skin irritation.            Iron trichloride</p> <p>*Hazard statements H315 Causes skin irritation. H318 Causes serious eye damage.</p> <div data-bbox="810 1585 1034 1809" data-label="Image"> </div> <p>*Precautionary statements P305+P351+P338            IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>

**3 – Hazards Identification.**

	<p>CAS: Sulphuric Acid C R35 7664-93-9</p> <p>EINECS:  Skin Corr. 1A, H314 2.5-10% 231-639-5</p> <p>CAS: Iron TrichlorideXn 7705-08-0 R22; Xi R38-41</p> <p>EINECS:   Eye Dam. 1, H318;  2.5-10% 231-729-4 Acute Tox. 4, H302; Skin Irrit. 2, H315</p> <p>None</p> <p>NFPA Ratings (Scale 0 – 4): Health = 2 Flammability = 0 Reactivity = 0 Special = 0</p> <p>HMIS Ratings (Scale: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe) Health = 2 Flammability = 0 Reactivity=1 Prot. Equipment=B (Tightly Sealed Goggles) (Nitrile Gloves or similar) In case of brief exposure or low pollution use respiratory filter device.</p> <p>WHMIS No Hazard Class</p>
--	---

**4 – First Aid Measures**

Inhalation	In case of unconsciousness place patient stably in side position for transportation.
Skin Contact	Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
Eye Contact	Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any

	contact lenses. Do not remove contact lenses by hand. Continue to rinse.. If symptoms persist, consult a doctor.
Ingestion	Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

### 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	<p>Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.</p> <p>In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.</p> <p>The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.</p> <p>Wear tightly sealed goggles.</p>
Environmental Precautions	<p>Dilute with plenty of water.</p> <p>Do not allow to enter sewers/ surface or ground water.</p>
Methods for cleaning up	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### 7 – Handling & Storage

Handling	<p>Ensure good ventilation/exhaustion at the workplace.</p> <p>Prevent formation of aerosols.</p>
Storage	<p>Keep away from children.</p> <p>Store at room temperature in original container.</p> <p>Keep receptacle tightly sealed.</p>

### 8 – Exposure Controls / Personal Protection

Exposure Limits	Not available.
Engineering methods to reduce exposure	Keep away from foodstuffs, beverages and feed.

	Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Respiratory protection:
Personal Protection equipment / Respiratory protection	In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Wear tightly sealed goggles. 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 ~ 1.1566 Kg / 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	Irritant to skin and mucous membranes.
	Irritating effect on eyes.
	No sensitization effects known.
Local Effects	No Data is available on this product itself
Long term toxicity	None
Further Information	The product shows the following dangers according to the calculation method of the general EU classification guidelines for preparations as issued in the latest version:- Irritant.

## 12 – Ecological Information

Persistence / degradability	Do not allow undiluted product or large quantities of it to reach ground water, water course or
-----------------------------	---

	sewage system.
--	----------------

**13 – Disposal Considerations**

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated Packaging	Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**14 – Transport Information Considerations**

Further information	1760 CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID, FERRIC CHLORIDE) *IMDG, IATA CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID, FERRIC CHLORIDE)
---------------------	---

**15 – Regulatory Information**

Regulatory Information	<p><b>Redox buffer 468 mV:</b></p> <p>Safety, health and environmental 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 Chemical safety assessment:</p> <p>A Chemical Safety Assessment has not been carried out.</p>
------------------------	---

**16 – Other Information**

Recommended use	For industrial application only.
End Use	<ul style="list-style-type: none"> <li>• H302 Harmful if swallowed.</li> <li>• H314 Causes severe skin burns and eye damage.</li> <li>• H315 Causes skin irritation.</li> <li>• H318 Causes serious eye damage.</li> <li>• H319 Causes serious eye irritation.</li> <li>• R22 Harmful if swallowed.</li> <li>• R35 Causes severe burns.</li> <li>• R38 Irritating to skin.</li> </ul>

	<ul style="list-style-type: none"><li>• R41 Risk of serious damage to eyes.</li></ul> <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>
--	--

*The information above is believed to be accurate and represents the best information currently available to us. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages*