

**Material Safety Data Sheet BUFFER SOLUTIONS**

IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers and users of this product. The contents and format of this MSDS are in accordance with EC Commission Directive 91/155EEC.

1. **Identification**  
 Chemical Description                      Buffer Solution ID No.: 1903200
  
2. **Composition**  
 Inorganic salts in aqueous solution
  
3. **Hazards Identification**  
 None
  
4. **First Aid Measures**
  - Eye Contact
    - Irrigate thoroughly with water. If discomfort persists obtain medical attention
  - Inhalation
    - Remove from exposure
  - Skin Contact
    - Wash off skin thoroughly with soap & water
  - Ingestion
    - Wash out mouth thoroughly with water. In severe cases obtain medical attention
  
5. **Fire Fighting Measures**

Special Risks	N/A
Extinguishing Media	N/A
  
6. **Accidental Release Measures**  
 Wear appropriate protective clothing. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water.  
 Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with detergent and water.  
 For large spillage liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residue should be treated as for small spillage
  
7. **Handling and Storage**  
 Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.
  
8. **Exposure controls / Personal Protection (as appropriate to quantities handled)**

Protective Equipment	Goggles or face-shield, rubber or plastic gloves, plastic apron, sleeves and boots if handling large quantities
Respiratory Protection	Not applicable
Ventilation	Not applicable
  
9. **Physical and Chemical Properties**

Appearance/Form	Liquid
Odour	Odourless
Melting Point	n/a
Boiling Point	n/a
Density (g/ml)	n/a
Solubility in water	Miscible in all proportions
  
10. **Stability and Reactivity**

Stability	Stable
Reactivity	No data
  
11. **Toxicological information**  
 The following applies to soluble barium compounds in general: ingestion is followed by mucosal irritation, nausea, salivation, vomiting, dizziness, pain, colics and diarrhoea. Systemic effects include; cardiac dysrhythmias, bradycardia (subdued cardiac activity), rise in blood pressure, shock and circulatory collapse as well as muscular rigidity.  
 No evidence of carcinogenic properties. May cause adverse mutagenic or teratogenic effects.
  
12. **Ecological Information**  
 Hazard properties are relatively improbable. The product should be handled with the care usual when dealing with chemicals.  
 No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.
  
13. **Disposal Considerations**  
 Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location.  
 Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.
  
14. **Transportation Information**

Correct Technical Name	Not Restricted
UN No.	NR
IMDG	NR
IATA	NR
IMO	NR
ADR/RID	NR

**15. Regulatory Information**

Symbol	None
Risk Phrases	None
Safety Phrases	None
UK Exposure Limits	None assigned

**16. Other Information**

All information, recommendations and suggestions herein concerning the above product are based upon data believed to be reliable, however, it is the users responsibility to determine the safety, toxicity, and suitability for his/her own use of the product described herein. The information herein should not be construed as being absolutely complete since additional information may be necessary or desirable when special or exceptional circumstances exist or because of applicable laws or regulations.

**Disclaimer**

The preceding is given in good faith as required under the health and safety at work act 1974, but no warranty is implied or given. The information provided is designed to enable the user to use the product safely. If the information is insufficient to ensure safety in any particular application, contact "the supplier" for further advice before proceeding.

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