

Material Safety data sheet
(pHBS4)
pH Buffer Solution 4.0pH

Version number 1.2 - 2014

| 1 – Identification of the substance | |
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| Use of the substance / preparation | Buffer Solution For pH Calibration, traceable to NIST coloured Red. |
| Chemical Characteristics | Aqueous Solution containing inorganic components. |
| Product Code | pHBS4 |
| Supplier | Automated Water & Effluent LTD. AWE House, Antom Court, Tollgate Industrial Estate, Beaconside, Stafford, ST16 3AF Tel:- 01785 254 597 Fax:- 01785 257 724 Email:- sales@awe-ltd.co.uk |

| 2 – Composition / Information on ingredients. | |
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| Hazardous Components | Potassium Biphthalate CAS 877-24-27 – 1 - 2% Fuchsin acid CAS 3244-8-0 - < 0.1% Mercuric Chloride – CAS 7487-94-7 – < 0.1% T+ N 28 34 48/24/25 50/53 Water CAS 7732-18-5 – Remainder. |

| 3 – Hazards Identification. | |
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| Potential Health Effects | |
| Inhalation: | May cause respiratory tract irritation. May be harmful if inhaled. |
| Skin: | May cause skin irritation. May be harmful if absorbed through the skin. |
| Eye: | May cause eye irritation. |
| Ingestion: | May cause irritation of the digestive tract. May be harmful if swallowed. |

4 – First Aid Measures

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| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Get medical attention if necessary. |
| Skin Contact | Wash affected areas thoroughly with soap and water for at least 15 minutes. Get medical attention if necessary. |
| Eye Contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a medical professional. |
| Ingestion | Drink plenty of water. Do not induce vomiting without medical advice. Get medical attention if necessary. |

5 – Fire Fighting Measures

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| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. No unsuitable |
| Specific Hazards | The product is not flammable. |

6 – Accidental Release Measures

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| Personal Precautions | Use personal protective equipment as required. Keep unnecessary people away, isolate hazard area and deny entry. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. |
| Environmental Precautions | Do not allow to enter sewers/ surface or ground water. |
| Methods for cleaning up | Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. |

7 – Handling & Storage

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| Handling | Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. |
| Storage | Keep away from children. Store in a cool, dry place. Store in a tightly closed container. |

8 – Exposure Controls / Personal Protection

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| Exposure Limits | CAS# 877247: CAS# 3244880: CAS# 7487947: |
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| | <p>Belgium TWA: (mercury inorganic compounds): 0.025 mg/m³ VLE (as Hg) France VME: (mercury inorganic compounds): 0.1 mg/m³ VME (as Hg)</p> <p>Germany: (mercury inorganic compounds): 0.1 mg/m³ VME (as Hg) Germany: (mercury inorganic compounds): skin notation</p> <p>Malaysia: (mercury inorganic compounds): 0.025 mg/m³ TWA (as Hg)</p> <p>Netherlands: (mercury inorganic compounds): 0.15 mg/m³ STEL Netherlands: (mercury inorganic compounds): 0.05 mg/m³ MAC</p> <p>Russia: (mercury inorganic compounds): 0.005 mg/m³ TWA (aerosol, as Hg) Spain: (mercury inorganic compounds): 0.025 mg/m³ VLAED (as Hg)</p> <p>CAS# 7732185:</p> |
| Engineering methods to reduce exposure | <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>Respiratory protection: Use adequate ventilation to keep airborne concentrations low.</p> |
| Personal Protection equipment / Respiratory protection Eyes: Skin: Clothing: Respirators: | <p>Wear chemical splash goggles.</p> <p>Wear appropriate protective gloves to prevent skin exposure.</p> <p>Wear appropriate protective clothing to prevent skin exposure.</p> <p>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p> |

9 – Physical and Chemical Properties

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| Form | Liquid |
| Colour | Red |
| Physical | <p>pH: 4.0</p> <p>Boiling point / range ~ 100°C</p> <p>Relative Density ~ 1.0 Kg / L</p> <p>Flash point ~ Does not ignite</p> <p>Water Solubility ~ Completely miscible.</p> |

10 – Stability and Reactivity

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| Stability | No decomposition if stored and applied as |
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| | directed. |
| Conditions to avoid | Has not been reported |
| Hazardous decomposition products | None. |

11 – Toxicological Information

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| 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

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| Persistence / degradability | Not available |
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13 – Disposal Considerations

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| 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

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| Further information IATA . IMO / RID / ADR | Not regulated as a hazardous material |
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15 – Regulatory Information

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| Regulatory Information | <p>PHBS4</p> <p>European Labeling in Accordance with EC Directives Hazard Symbols: Not available Risk Phrases:</p> <p>Safety Phrases: S 24/25 Avoid contact with skin and eyes.</p> <p>WGK (Water Danger/Protection) CAS# 877247: Not available</p> <p>CAS# 3244880: Not available CAS# 7487947: 3 CAS# 7732185: Not available</p> <p>Canada</p> |
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| | <p>CAS# 877247 is listed on Canada's DSL List CAS# 3244880 is listed on Canada's DSL List CAS# 7487947 is listed on Canada's DSL List CAS# 7732185 is listed on Canada's DSL List</p> <p>US Federal</p> <p>TSCA CAS# 877247 is listed on the TSCA Inventory. CAS# 3244880 is listed on the TSCA Inventory. CAS# 7487947 is listed on the TSCA Inventory. CAS# 7732185 is listed on the TSCA Inventory.</p> |
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| 16 – Other Information | |
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| Recommended use | For industrial application only. |
| End Use | <ul style="list-style-type: none"> • Text for Rphrases from Section 2 • R 28 Very toxic if swallowed. R 34 Causes burns. R 48/24/25 Toxic : danger of serious damage to health by prolonged exposure in contact with skin and if swallowed. R 50/53 Very toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment. |

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