



# MATERIAL SAFETY DATA SHEET

## BUFFER PH4.00

### 1. Chemical Product and Company information.

**Product name:** Buffer Solution, pH 4.0/RED

**Contact Information:**

Radchem cc  
PO Box 166982  
Brackendowns  
Alberton 1454  
Telephone : **011 867 3726 / 2864**

### 2. Hazard Identification

Slightly hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

### 3. Composition / information on ingredients

**CAS #:** Mixture

**Synonym:**

**Chemical Name:** Not applicable

**Chemical Formula:** Not applicable

### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available



**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

### **5. Fire-fighting measures**

**Flammability of the Product:** Non-flammable

**Fire Hazards in Presence of Various Substances:** Not applicable

**Explosion Hazards in Presence of Various Substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable

**Special Remarks on Fire Hazards:** Not available

**Special Remarks on Explosion Hazards:** Not available

### **6. Accidental release measures**

**Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### **7. Handling and storage**

**Precautions:** Keep container dry. Do not breathe gas/fumes/ vapour/spray. Avoid contact with skin. Never add water to this product. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

### **8. Exposure controls/personal protection**

**Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value.

**Personal Protection:** Safety glasses. Lab coat. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### **9. Physical and chemical properties**

**Physical state and appearance:** Liquid

**Odour:** Not available

**Taste:** Not available

**Odour Threshold:** Not available

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water,



<p><b>Colour:</b> Clear Red</p> <p><b>Boiling Point:</b> The lowest known value is 100°C (Water)</p> <p><b>Melting Point:</b> Not available</p> <p><b>Critical Temperature:</b> Not available</p> <p><b>Specific Gravity:</b> Weighted average: 1 (Water = 1)</p> <p><b>Vapour Density:</b> The highest known value is 0.62 (Air = 1) (Water)</p> <p><b>Volatility:</b> Not available</p>	<p>methanol, diethyl ether, acetone</p> <p><b>Solubility:</b> Easily soluble in cold water, methanol. Soluble in hot water, diethyl ether, acetone</p>
<p><b><u>10. Stability and reactivity</u></b></p> <p><b>Stability:</b> The product is stable</p> <p><b>Instability Temperature:</b> Not available.</p> <p><b>Conditions of Instability:</b> Not available</p> <p><b>Incompatibility with various substances:</b> Slightly reactive to reactive with metals, alkalis</p> <p><b>Corrosivity</b> Slightly corrosive in presence of steel, of aluminium, of copper. Non-corrosive in presence of glass, of stainless steel (304), of stainless steel(316).</p> <p><b>Special Remarks on Reactivity:</b> Reacts violently with water especially when water is added to the product. (Hydrogen chloride)</p> <p><b>Special Remarks on Corrosivity:</b> Not available</p> <p><b>Polymerization:</b> Will not occur.</p>	
<p><b><u>11. Toxicological information</u></b></p> <p><b>Routes of Entry:</b> Not available</p> <p><b>Toxicity to Animals:</b> LD50: Not available. LC50: Not available</p> <p><b>Chronic Effects on Humans:</b> Not available</p> <p><b>Other Toxic Effects on Humans:</b> Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.</p> <p><b>Special Remarks on Toxicity to Animals:</b> Not available</p> <p><b>Special Remarks on Chronic Effects on Humans:</b> Not available</p> <p><b>Special Remarks on other Toxic Effects on Humans:</b> Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. (Hydrogen chloride)</p>	
<p><b><u>12. Ecological information</u></b></p> <p><b>Ecotoxicity:</b> Not available</p>	



**BOD5 and COD:** Not available

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic

**Special Remarks on the Products of Biodegradation:** Decomposes and burns to form smoke, carbon monoxide and carbon dioxide. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is potential dust explosion hazard. (Methyl paraben)

### **13. Disposal considerations**

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### **14. Transport information**

**DOT Classification:** Not a DOT controlled material

**Identification:** : Not applicable

**Special Provisions for Transport:** Not available

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