



# Safety Data Sheet

## Buffer Solution, pH 5.00

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Buffer Solution, pH 5.00

**Synonyms/Generic Names:** pH 5.00 Buffer

**SDS Number:** 130.00

**Product Use:** For Educational Use Only

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information Contact:** Ward's Science  
5100 West Henrietta Rd.  
PO Box 92912-9012  
Rochester, NY 14692  
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** No known OSHA hazards.

**Target Organs:** None

**Signal Word:** None

**Pictograms:** None

**GHS Classification:**

Not a hazardous mixture according to GHS.

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

None

**Precautionary Statements:**

None

**Potential Health Effects**

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | May cause eye irritation.  |
| <b>Inhalation</b> | May be harmful if inhaled. Causes respiratory tract irritation.  |
| <b>Skin</b>       | May be harmful if absorbed through skin. Causes skin irritation. |
| <b>Ingestion</b>  | May be harmful if swallowed.                                     |

**NFPA Ratings**

|                 |               |
|-----------------|---------------|
| Health          | 0             |
| Flammability    | 0             |
| Reactivity      | 0             |
| Specific hazard | Not Available |

**HMIS Ratings**

|            |   |
|------------|---|
| Health     | 0 |
| Fire       | 0 |
| Reactivity | 0 |
| Personal   | C |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component                | Weight % | CAS #     | EINECS# / ELINCS# | Formula                                       | Molecular Weight |
|--------------------------|----------|-----------|-------------------|---|------------------|
| Water                    | Balance  | 7732-18-5 | 231-791-2         | H <sub>2</sub> O                              | 18.00 g/mol      |
| Potassium Acid Phthalate | 1-2      | 877-24-7  | 212-889-4         | C <sub>8</sub> H <sub>5</sub> KO <sub>4</sub> | 204.22 g/mol     |
| Sodium Hydroxide         | <1       | 1310-73-2 | 215-185-5         | NaOH  | 40.00 g/mol      |

**4. FIRST-AID MEASURES**

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | In case of eye contact, rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.   |
| <b>Inhalation</b> | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary. |
| <b>Skin</b>       | Flush with plenty of water and wash using soap. Get medical attention if necessary.   |
| <b>Ingestion</b>  | <b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.      |

**5. FIRE-FIGHTING MEASURES**

|  |  |
|--|--|
| <b>Suitable (and unsuitable) extinguishing media</b>                 | Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.   |
| <b>Special protective equipment and precautions for firefighters</b> | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.                    |
| <b>Specific hazards arising from the chemical</b>                    | Emits toxic fumes (carbon oxides, potassium oxides, sodium oxides) under fire conditions. (See also Stability and Reactivity section). |

**6. ACCIDENTAL RELEASE MEASURES**

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | See section 8 for recommendations on the use of personal protective equipment.  |
| <b>Environmental precautions</b>   | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.   |
| <b>Methods and materials for containment and cleaning up</b>               | Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational exposure controls:** Contains no substances with occupational exposure limit values.

### Personal Protection

|                   |   |
|-------------------|---|
| <b>Eyes</b>       | Wear chemical safety glasses or goggles.  |
| <b>Inhalation</b> | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| <b>Skin</b>       | Wear nitrile or rubber gloves, and apron or lab coat.   |
| <b>Other</b>      | Not Available   |

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|   |                          |
|---|--------------------------|
| Appearance (physical state, color, etc.)    | Clear, colorless liquid. |
| Odor  | Not Available            |
| Odor threshold                              | Not Available            |
| pH  | 5.00                     |
| Melting point/freezing point                | Not Available            |
| Initial boiling point and boiling range     | Not Available            |
| Flash point                                 | Not Flammable            |
| Evaporation rate                            | Not Available            |
| Flammability (solid, gas)                   | Not Flammable            |
| Upper/lower flammability or explosive limit | Not Explosive            |
| Vapor pressure                              | Not Available            |
| Vapor density                               | Not Available            |
| Density                                     | Not Available            |
| Solubility (ies)                            | Not Available            |
| Partition coefficient: n-octanol/water      | Not Available            |
| Auto-ignition temperature                   | Not Available            |
| Decomposition temperature                   | Not Available            |

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## 10. STABILITY AND REACTIVITY

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|   |   |
|---|---|
| <b>Chemical Stability</b>                 | Stable  |
| <b>Possibility of Hazardous Reactions</b> | Will not occur.                                 |
| <b>Conditions to Avoid</b>                | Not Available                                   |
| <b>Incompatible Materials</b>             | Strong oxidizing agents, bases.                 |
| <b>Hazardous Decomposition Products</b>   | Carbon oxides, potassium oxides, sodium oxides. |

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

|                    |               |
|--------------------|---------------|
| <b>Skin</b>        | Not Available |
| <b>Eyes</b>        | Not Available |
| <b>Respiratory</b> | Not Available |
| <b>Ingestion</b>   | Not Available |

### Carcinogenicity

|              |  |
|--------------|--|
| <b>IARC</b>  | No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| <b>ACGIH</b> | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.            |
| <b>NTP</b>   | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |
| <b>OSHA</b>  | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.             |

### Signs & Symptoms of Exposure

|                    |   |
|--------------------|---|
| <b>Skin</b>        | Irritation, redness.                    |
| <b>Eyes</b>        | Irritation, redness, watering eyes.     |
| <b>Respiratory</b> | Irritation, coughing.                   |
| <b>Ingestion</b>   | Irritation, nausea, vomiting, diarrhea. |

|                                       |               |
|---------------------------------------|---------------|
| <b>Chronic Toxicity</b>               | Not Available |
| <b>Teratogenicity</b>                 | Not Available |
| <b>Mutagenicity</b>                   | Not Available |
| <b>Embryotoxicity</b>                 | Not Available |
| <b>Specific Target Organ Toxicity</b> | Not Available |
| <b>Reproductive Toxicity</b>          | Not Available |
| <b>Respiratory/Skin Sensitization</b> | Not Available |

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

|                             |               |
|-----------------------------|---------------|
| <b>Aquatic Vertebrate</b>   | Not Available |
| <b>Aquatic Invertebrate</b> | Not Available |
| <b>Terrestrial</b>          | Not Available |

|                                      |               |
|--------------------------------------|---------------|
| <b>Persistence and Degradability</b> | Not Available |
| <b>Bioaccumulative Potential</b>     | Not Available |
| <b>Mobility in Soil</b>              | Not Available |
| <b>PBT and vPvB Assessment</b>       | Not Available |
| <b>Other Adverse Effects</b>         | Not Available |

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## 13. DISPOSAL CONSIDERATIONS

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|                           |  |
|---------------------------|--|
| <b>Waste Residues</b>     | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues. |
| <b>Product Containers</b> | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.   |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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|                  |                     |
|------------------|---------------------|
| US DOT           | Not Dangerous Goods |
| TDG              | Not Dangerous Goods |
| IMDG             | Not Dangerous Goods |
| Marine Pollutant | No                  |
| IATA/ICAO        | Not Dangerous Goods |

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## 15. REGULATORY INFORMATION

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|                           |   |
|---------------------------|---|
| TSCA Inventory Status     | All ingredients are listed on the TSCA inventory. |
| DSCL (EEC)                | All ingredients are listed on the DSCL inventory. |
| California Proposition 65 | Not Listed  |
| SARA 302                  | Not Listed  |
| SARA 304                  | Not Listed  |
| SARA 311                  | No SARA Hazards                                   |
| SARA 312                  | No SARA Hazards                                   |
| SARA 313                  | Not Listed  |
| WHMIS Canada              | Not Listed  |

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## 16. OTHER INFORMATION

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| Revision   | Date       |
|------------|------------|
| Revision 1 | 01/11/2013 |
|            |            |
|            |            |

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