

**Rocker Scientific Co.,Ltd.**  
Add. : 11F,NO.402,SEC1,REN-AI RD.,  
LINKOU SHIANG,TAIPEI COUNTY 244,  
TAIWAN(R.O.C)  
Tel : 886-2-26033311  
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**MSDS No: M168003**

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Buffer Solution pH 10.01 ± 0.01  
**Catalog Number:**168100

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**MSDS Number:** M168003  
**Chemical Name:** pH buffer  
**Chemical Formula:** Not applicable  
**Chemical Family:** Not applicable  
**Hazard:** Practically non-toxic.  
**Date of MSDS Preparation:**  
**Day:**3  
**Month:** November  
**Year:** 2009

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

### Sodium Carbonate

**Percent Range:** < 1.0  
**Percent Range Units:** weight / weight  
**Hazard:** Causes moderate eye irritation.

### Demineralized Water

**Percent Range:** > 99.0  
**Percent Range Units:** volume / volume  
**Hazard:** No effects anticipated.

### Other components, each

**Percent Range:** < 1.0  
**Percent Range Units:** volume / volume  
**Hazard:** Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to the user of this product.

### Sodium Bicarbonate

**Percent Range:** < 1.0  
**Percent Range Units:** weight / weight  
**Hazard:** May cause irritation.

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## 3. HAZARDS IDENTIFICATION

**Emergency Overview:**  
**Appearance:** Clear,  
blue **Odor:** None

**Potential Health Effects:**

**Eye Contact:** May cause irritation

**Skin Contact:** May cause irritation

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#### 4. FIRST AID

**Eye Contact:** Immediately flush eyes with water for 15 minutes. Call physician.

**Skin Contact (First Aid):** Wash skin with plenty of water. Call physician if irritation develops.

**Ingestion (First Aid):** Give large quantities of water. Call physician immediately.

**Inhalation:** None required.

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#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Material will not burn.

**Flash Point:** Not

applicable **Method:** Not

applicable **Flammability**

**Limits:**

**Lower Explosion Limits:** Not applicable

**Upper Explosion Limits:** Not

applicable **Autoignition Temperature:**

Not applicable **Hazardous Combustion**

**Products:** None **Fire / Explosion**

**Hazards:** None reported **Static**

**Discharge:** None reported. **Mechanical**

**Impact:** None reported

**Extinguishing Media:** Use media appropriate to surrounding fire conditions

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

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#### 6. ACCIDENTAL RELEASE MEASURES

**Containment Technique:** Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Absorb spill with inert material (e.g. dry sand, earth).

**Clean-up Technique:** Absorb spilled liquid with non-reactive sorbent material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse.

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#### 7. HANDLING / STORAGE

**Handling:** Avoid contact with eyes Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

**Storage:** Protect from: heat Keep container tightly closed when not in use.

**Flammability Class:** Not applicable

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#### 8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

**Engineering Controls:** Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**

**Eye Protection:** safety glasses with top and side shields

**Skin Protection:** disposable latex gloves lab coat

**Inhalation Protection:** adequate ventilation

**Precautionary Measures:** Avoid contact with: eyes Wash thoroughly after handling.

**TLV:** Not established

**PEL:** Not established

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## 9. PHYSICAL / CHEMICAL PROPERTIES

**Appearance:** Clear, blue  
**Physical State:** Liquid  
**Odor:** None  
**pH:** 10.01  
**Boiling Point:** ~100°C (~212°F)  
**Melting Point:** ~0°C (~32°F)  
**Specific Gravity (water = 1):** 0.990  
**Solubility:**  
**Water:** Soluble  
**Acid:** Soluble  
**Other:** Not determined  
**Metal Corrosivity:** Not determined

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## 10. STABILITY / REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.  
**Conditions to Avoid:** Heat Evaporation  
**Reactivity / Incompatibility:** None  
reported  
**Hazardous Decomposition:**  
None reported  
**Hazardous Polymerization:**  
Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**Product Toxicological Data:** LD50: None  
reported LC50: None  
reported  
**Dermal Toxicity Data:** None reported  
**Skin and Eye Irritation Data:** None reported  
**Mutation Data:** None reported  
**Reproductive Effects Data:** None  
reported  
**Ingredient Toxicological Data:** -  
No toxicological data available for the ingredients of this product.

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** No information available for this product.

**Ingredient Ecological Information:** None reported

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## 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** None  
**Special Instructions (Disposal):** Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Open cold water tap completely, slowly pour the reacted material to the drain.  
**Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.  
**NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

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## 14. TRANSPORT INFORMATION

**D.O.T.:**  
**D.O.T. Proper Shipping Name:** Not Currently Regulated

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**DOT Hazard Class:** NA  
**DOT Subsidiary Risk:** NA  
**DOT ID Number:** NA **DOT**  
**Packing Group:** NA  
**I.C.A.O.:**  
**I.C.A.O. Proper Shipping Name:** Not Currently Regulated

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**ICAO Hazard Class:** NA  
**ICAO Subsidiary Risk:** NA  
**ICAO ID Number:** NA **ICAO**  
**Packing Group:** NA **I.M.O.:**  
**I.M.O. Proper Shipping Name:** Not Currently Regulated

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**I.M.O. Hazard Class:** NA  
**I.M.O. Subsidiary Risk:**  
NA **I.M.O. ID Number:** NA  
**I.M.O. Packing Group:** NA

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## 15. REGULATORY INFORMATION

### **U.S. Federal Regulations:**

**O.S.H.A.:** This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

### **E.P.A.:**

**S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370):** Immediate (Acute) Health Hazard

**S.A.R.A. Title III Section 313 (40 CFR 372):** This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

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## 16. OTHER INFORMATION

**Intended Use:** Buffer

**References:** 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor).

Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for

### **Legend:**

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**This information was compiled from current manufacturer's MSDS's of the component parts of the product.**

**Disclaimer:** The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.