



# MATERIAL SAFETY DATA SHEET

## 1. Chemical Product and Company Identification

Description: Buffer Calibration Solution, pH 4.01 (Color coded- RED)  
Product Code: Signet Part Number 3822-7004  
Product Type: Aqueous salt solution  
Application: Storage of pH and ORP Electrodes

### Manufacturer/Supplier Information

MSDS prepared by:  
Georg Fischer Signet LLC  
3401 Aerojet Ave  
El Monte, California 91731

Date Prepared: July 29, 2008  
For additional health, safety or regulatory information, call (626) 571-2770

**For Chemical Emergency  
Spill Leak Fire Exposure or Accident  
Call CHEMTREC Day or Night**

**DOMESTIC NORTH AMERICA 800-424-9300  
INTERNATIONAL, CALL 703-527-3887 (collect calls accepted)**

## 2. Composition, Information on Ingredients

No exposure limits have been established for the buffer solution as a whole. It is presumed to present the same health hazards as do the following components in the liquid mixture. The actual mixture, including exact weight percent information is considered a trade secret.

### 2.1 Chemical Content

Chemical	CAS No.	% w/v
Potassium Acid Phthalate	877-24-7	1.02
Inert Dye	Proprietary	Less than 1.0%
Preservative	Proprietary	Less than 0.1%
Water, deionized	7732-18-5	Balance

## 3. Hazards Identification

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### EMERGENCY OVERVIEW

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#### POTENTIAL HEALTH EFFECTS:

TARGET ORGANS: eyes, skin  
EYE CONTACT: May cause slight irritation  
INHALATION: Not likely to be hazardous by inhalation.  
SKIN CONTACT: May cause slight irritation.  
INGESTION: Large doses may cause nausea, vomiting or cramps  
CHRONIC EFFECTS/CARCINOGENICITY:  
IARC - No  
NTP - No  
OSHA - No  
TERATOLOGY (BIRTH DEFECT INFORMATION): No information.  
REPRODUCTION INFORMATION: No information

#### 4. First Aid Measures

EYE CONTACT: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

INHALATION: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

SKIN CONTACT: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

INGESTION: Dilute with milk or water. Call a physician if necessary

#### 5. Fire Fighting Procedures

FLAMMABLE PROPERTIES: FLASH POINT: N/A                      METHOD USED: N/A

FLAMMABLE LIMITS:                      LFL: N/A                      UFL: N/A

EXTINGUISHING MEDIA: Use any means suitable for extinguishing surrounding fire.

FIRE AND EXPLOSION HAZARDS: Not considered to be a fire or explosion hazard.

FIRE FIGHTING INSTRUCTIONS: Use normal procedures/instructions.

FIRE FIGHTING EQUIPMENT: Use protective clothing and breathing equipment appropriate for surrounding the fire.

#### 6. Accidental Release Procedures

Absorb with suitable material (vermiculite, clay, etc) and dispose of in accordance with local regulations.

#### 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. SAFETY STORAGE CODE: GENERAL

#### 8. Exposure Controls & Personnel Protection

ENGINEERING CONTROLS: No specific controls are required. Normal room ventilation is adequate.

RESPIRATORY PROTECTION: Normal room ventilation is adequate.

SKIN PROTECTION: Chemical resistant gloves.

EYE PROTECTION: Safety glasses or goggles

#### 9. Physical and Chemical Properties

APPEARANCE: Clear, red colored liquid

pH: 4.01

ODOR: odorless

BOILING POINT: approx 100°C/ 212°F

SOLUBILITY IN WATER: infinite

MELTING POINT: approx. 0°C/ 32°F

SPECIFIC GRAVITY: approx 1

VAPOR PRESSURE: N/A

#### 10. Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions of use and storage.

INCOMPATIBILITY: Nitric acid

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon and Potassium.

HAZARDOUS POLYMERIZATION: Will not occur

#### 11. Toxicological Information

LD50, Oral, Rat: >3200 mg/kg (Potassium Acid Phthalate), details of toxic effects not reported other than LD50.

#### 12. Ecological Information

ECOTOXICOLOGICAL INFORMATION: No information found.

CHEMICAL FATE INFORMATION: No information found.

### 13. Disposal Considerations

Dilute with water, neutralize with weak sodium hydroxide solution, and then flush to sewer if local regulations allow. Always dispose of in accordance with local, state and federal regulations.

### 14. Transportation Information

D.O.T. SHIPPING NAME: Not regulated

D.O.T. HAZARD CLASS: None

U.N. / N.A. NUMBER: None

PACKING GROUP: None

D.O.T. LABEL: None

### 15. Regulatory Information - (NOT ALL INCLUSIVE)

OSHA STATUS: The above listed items either do not contain any hazardous material or the potentially hazardous material is present in such low concentration that the items do not present and immediate threat to health of safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA STATUS: All components of this inventory are listed on the TCSA Inventory.

CERCLA REPORTABLE QUANTITY: Not reportable.

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: No

SECTION 311/312 HAZARDOUS CATEGORIES: No

SECTION 313 TOXIC CHEMICALS: No

RCRA STATUS: No

CALIFORNIA PROPOSITION 65: Not listed

### 16. Other

NFPA Ratings:	Health: 1	Flammability: 0	Reactivity: 0	Special Notice Key: None
HMIS Ratings:	Health: 1	Flammability: 0	Reactivity: 0	Protective Equipment: B (protective eyewear, gloves)

### 17. Disclaimer:

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**Revision**

Date of latest revision: 7-29-08  
Responsibility for MSDS: S.K. Wells

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