


Analytical Sensors & Instruments Ltd.

12800 Park One Drive
 Sugar Land, TX 77478-2521
 Phone: (281)-565-8818; Fax: (281)-565-8811
 Email: info@asi-sensors.com

MATERIAL SAFETY DATA SHEET
Section I. PRODUCT IDENTIFICATION

Product Name: Storage Solution for pH Electrodes pH ~ 7	Catalog No.	Effective Date 01 October, 2004
Hazardous Shipment Labeling:	DOT None	IATA None
Prepared by George C. Barone III, Ph.D.	Title: Senior Research Chemist	
Approved by George C. Barone III, Ph.D.	Title: Director Regulatory Compliance	

Section II. HAZARDOUS INGREDIENTS/Identity Information

Hazardous Components* Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD ₅₀ mg/Kg
Potassium Chloride (KCl)**	7447-40-7	12	None Listed	None Listed	2,600 (ORL-RAT)
Potassium Phosphate Monobasic (KH ₂ PO ₄)	7778-77-0	<1	None Listed	None Listed	NA
Sodium Phosphate Dibasic (Na ₂ HPO ₄)	7558-79-4	<1	None Listed	None Listed	170,000 (ORL-RAT)
Trade Secret Component – Non-hazardous	NA	<1	None Listed	None Listed	NA
Deionized Water (H ₂ O)**	7732-18-5	>85	None Listed	None Listed	NA

Section III. PHYSICAL/CHEMICAL DATA AND CHARACTERISTICS

Boiling Point at 760 mmHg	104°C	Freezing Point	-4°C
Specific Gravity (H₂O = 1)	1.05	Vapor Pressure at 25°C	NA
pH at 25°C	6.5 to 7.5	Solubility in water, % by wt	Miscible
Volatiles, % by wt	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Vapor Density (AIR = 1)	NA		
Appearance and Odor	Clear, colorless, odorless liquid		

Section IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) NA	Auto-ignition Temperature NA	Flammable Limits In air, % by volume:	Lower NA	Upper NA
Extinguishing Media Dry chemical, water, foam, or CO ₂				
Special Fire Fighting Procedures NONE, this solution is non-flammable				
Unusual Fire and Explosion Hazards NONE				

*Chemicals that are not classified as hazardous by U.S. OSHA guidelines (29 CFR Parts 1915.2 or 1916.2) will not necessarily be listed herein even though one or more may be in this product.

** Non-hazardous component

NA = Not available/Not applicable



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Section V. REACTIVITY DATA

Stability: Unstable	Stable X	Conditions to Avoid: NONE
Incompatibility (Materials to Avoid) Magnesium, sodium metals, or strong bases		
Hazardous Decomposition or Byproducts May emit toxic PO _x fumes if heated to decomposition		
Hazardous Polymerization: May Occur	Will Not Occur X	Conditions to Avoid: Heating to decomposition

Section VI. HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation? NO	Skin? NO	Ingestion? NO
Health Hazards (Acute and Chronic) Low hazard for acute and chronic because of low concentration of phosphate salts. The phosphate salts are also used as a buffer in pharmaceuticals.			
Carcinogenicity: Not found on these lists	NTP?	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure Irritation of Skin, Eyes, or Respiratory Tract			
Medical Conditions Generally Aggravated by Exposure Could aggravate diseases of the skin, eyes, or respiratory tract.			
Emergency and First Aid Procedures Wash off contact area with soap and water. If ingested: Dilute with water and consult physician.			

Section VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled Clean up and wash down drain if local laws allows
Waste Disposal Method Wash down drain. Observe all Federal, State and Local laws when disposing of this product.
Precautions to Be taken in Handling and Storing NFPA Rating: Scale (0-4): Health – 1, Fire – 0, Reactivity – 0, Specific – None.
Other Precautions SARA TITLE III Na ₂ HPO ₄ is a CERCLA hazard and releases are subject to section 304 of Title III. Not found on Cal. Prop. 65. Components reported in EPA TSCA inventory.

Section VIII. CONTROL MEASURES

Respiratory Protection (Specify Type) Wear appropriate respirator if ventilation is inadequate		
Ventilation	Local Exhaust NONE	Special NONE
Ventilation	Mechanical (General) NONE	Other NONE
Protective Gloves Not required for general use	Eye Protection Safety Glasses	
Other Protective Clothing or Equipment Eye wash station should be available.		
Work/Hygienic Practices No eating or drinking in work area. Wash hands after working with this product.		

Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of this product or any materials designated. Safe use of the materials is the responsibility of the user.

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