



Analytical Sensors & Instruments Ltd.

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MATERIAL SAFETY DATA SHEET

Section I. PRODUCT IDENTIFICATION

Product Name: pH/ORP Storage Solution	Catalog No. CSH0ST-xx; CS0001-xx	Effective Date 23 May, 2008
Hazardous Shipment Labeling: DOT: None IATA: None		
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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	< 15	None Listed	None Listed	2,600 (ORL-RAT)
Potassium Acid Phthalate (KHC ₈ H ₄ O ₄)	877-24-7	< 1	None Listed	None Listed	> 3,200 (ORL-RAT)
Other Components – Non-hazardous**	NA	< 1	None Listed	None Listed	NA
Deionized Water (H ₂ O)**	7732-18-5	> 83	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	3.5 to 4.5	Solubility in water, % by wt	Miscible
Volatiles, % by wt	NA	Evaporation Rate (B A = 1)	NA
Vapor Density (AIR = 1): NA			
Appearance and Odor: Clear, colorless, and 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 Use media appropriate to surrounding fire conditions				
Special Fire Fighting Procedures: NONE, this solution is non-flammable. As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.				
Unusual Fire and Explosion Hazards: NONE, this material is not considered to be an explosion hazard.				

*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: Incompatibles, water incompatibles, or extreme temperatures.
Incompatibility (Materials to Avoid): Magnesium, sodium metals, oxidizers, or strong bases	
Hazardous Decomposition or Byproducts: When heated to decomposition it emits toxic fumes of chlorine. It may form hydrogen chloride in the presence of strong acids at elevated temperatures. It may form carbon dioxide or carbon monoxide if heated to decomposition.	
Hazardous Polymerization: May Occur Will Not Occur X	Conditions to Avoid: Incompatibles, water incompatibles, or extreme temperatures. Heating to decomposition

Section VI. HEALTH HAZARD DATA

Route(s) of Entry: Inhalation? YES Skin? YES Ingestion? YES
Health Hazards (Acute and Chronic): May cause irritation in contact areas. Not a chronic or acute hazard for all routes of exposure; however an electrolyte imbalance may occur if swallowed and/or gastric distress.
Carcinogenicity: NTP? IARC Monographs? OSHA Regulated? Not found on these lists
Signs and Symptoms of Exposure: May cause irritations to eyes, skin, mucous membranes or digestive tract. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Medical Conditions Generally Aggravated by Exposure: May cause eye irritation, may be harmful or cause irritation if swallowed, inhaled, or allowed to come in contact with the skin.
Emergency and First Aid Procedures: Eye Contact: Immediately flush eyes with copious amounts of water, separate eyelid from eye. Call physician if irritation develops. Skin Contact: Wash effected area with soap and copious amounts of water. Call physician if irritation develops. Ingestion: Wash out mouth if person is conscious. Never give anything by mouth to an unconscious person. Give 1 to 2 glasses of water. Call physician if you feel unwell. Inhalation: Remove to fresh air, if not breathing give artificial respiration, if breathing is difficult give oxygen. Call 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. Observe all Federal, State and Local laws when disposing of this product.
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: Avoid contact with eyes. Wash hands thoroughly after use. NFPA Rating: Scale (0-4): Health – 1, Fire – 0, Reactivity – 0, Specific – None.
Other Precautions: Solids are on the TSCA list and on the SARA 311/312 are listed as Acute: yes, Chronic: no, Fire: no, Pressure: no, Reactivity: no.

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: Disposable latex gloves or similar	Eye Protection: Safety Glasses with top and side shields
Other Protective Clothing or Equipment: Eye wash station should be available. Wear protective garments if sensitive skin.	
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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