


Analytical Sensors & Instruments Ltd.

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MATERIAL SAFETY DATA SHEET
Section I. PRODUCT IDENTIFICATION

Product Name: Solution, Calcium ISE Reference Filling Solution, 1.0 M KCl	Catalog No. RF0CA1-xx or AJ0004-xx	Effective Date: 05 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	<8	None Listed	None Listed	2,600 (ORL-RAT)
Non-hazardous Component**	NA	<1	None Listed	None Listed	NA
Deionized Water (H ₂ O)**	7732-18-5	>91	None Listed	None Listed	NA

Section III. PHYSICAL/CHEMICAL DATA AND CHARACTERISTICS

Boiling Point at 760 mmHg	NA	Freezing Point	NA
Specific Gravity (H₂O = 1)	NA	Vapor Pressure at 25°C	NA
pH at 25°C	NA	Solubility in water, % by wt	Miscible
Volatiles, % by wt	None	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				

Section V. REACTIVITY DATA

Stability: Unstable Stable X	Conditions to Avoid: Water incompatibles
Incompatibility (Materials to Avoid): None, suitable for general storage	
Hazardous Decomposition or Byproducts: Oxides of potassium or oxides of chlorine, chlorine gas, or hydrogen chloride gas may be produced.	
Hazardous Polymerization: May Occur Will Not Occur X	
Conditions to Avoid: Exposure to sodium and similar metals, water incompatibles	

*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 VI. HEALTH HAZARD DATA

Route(s) of Entry:	Inhalation? YES	Skin? YES	Ingestion? YES
Health Hazards (Acute and Chronic): Not a chronic or acute hazard for all routes of exposure; however an electrolyte imbalance may occur if swallowed.			
Carcinogenicity: NTP? IARC Monographs? OSHA Regulated? Not found on these lists			
Signs and Symptoms of Exposure: Irritation of Skin, Eyes, or Mucosal Membranes			
Medical Conditions Generally Aggravated by Exposure: Could aggravate diseases of the skin. Will cause stinging in an open cut.			
Emergency and First Aid Procedures: Eye Contact: Wash with large amounts of water. Call physician if irritation develops. Skin Contact: Wash off contact area with soap and water. Call physician if irritation develops. Ingestion: Dilute with large amounts of water. Call physician if you feel unwell. Inhalation: Remove to a well-ventilated area. If not breathing give artificial respiration. If breathing is difficult give oxygen. Call physician if you feel unwell.			

Section VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Clean up then dispose of properly according to local laws. Observe all Federal, State and Local laws when disposing of this product.
Waste Disposal Method: Observe all Federal, State and Local laws when disposing of this product.
Precautions to Be taken in Handling and Storing: Avoid contact with eyes, skin, and mucosal membranes. Wash hands thoroughly after use. NFPA Rating: Scale (0-4): Health – 0, Fire – 0, Reactivity – 0, Specific – None.
Other Precautions: This product is not found on SARA TITLE III or CAL. Prop 65 listing. Potassium Chloride is on the TSCA list and on the SARA 311/312 is 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: 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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