


**Analytical Sensors & Instruments Ltd.**

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**MATERIAL SAFETY DATA SHEET**
**Section I. PRODUCT IDENTIFICATION**

<b>Product Name:</b> Solution, Reference Filling Solution, 3.0 M KCl or Potassium Chloride Standard, 3.000 M KCl	<b>Catalog No.</b> RF0003-xx or RF0XT1-xx	<b>Effective Date:</b> 05 May, 2008
<b>Hazardous Shipment Labeling:</b>	<b>DOT:</b> None	<b>IATA:</b> None
<b>Prepared by:</b> George C. Barone III, Ph.D.	<b>Title:</b> Senior Research Chemist	
<b>Approved by:</b> George C. Barone III, Ph.D.	<b>Title:</b> Director Regulatory Compliance	

**Section II. HAZARDOUS INGREDIENTS/Identity Information**

Hazardous Components* Specific Chemical Identity; Common Name(s)	CAS No.	%	OSHA PEL	ACGIH TLV	LD <sub>50</sub> mg/Kg
Potassium Chloride (KCl)**	7447-40-7	<23	None Listed	None Listed	2,600 (ORL-RAT)
Non-hazardous Component**	NA	<1	None Listed	None Listed	NA
Deionized Water (H <sub>2</sub> O)**	7732-18-5	>76	None Listed	None Listed	NA

**Section III. PHYSICAL/CHEMICAL DATA AND CHARACTERISTICS**

<b>Boiling Point at 760 mmHg</b>	NA	<b>Freezing Point</b>	NA
<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	NA	<b>Vapor Pressure at 25°C</b>	NA
<b>pH at 25°C</b>	NA	<b>Solubility in water, % by wt</b>	Miscible
<b>Volatiles, % by wt</b>	None	<b>Evaporation Rate (B A = 1)</b>	NA
<b>Vapor Density (AIR = 1):</b>	NA		
<b>Appearance and Odor:</b>	Clear, colorless, and odorless liquid		

**Section IV. FIRE AND EXPLOSION HAZARD DATA**

<b>Flash Point (Method Used)</b> NA	<b>Auto-ignition Temperature</b> NA	<b>Flammable Limits</b> In air, % by volume:	<b>Lower</b> NA	<b>Upper</b> NA
<b>Extinguishing Media:</b> Dry chemical, water, foam, or CO <sub>2</sub> Use media appropriate to surrounding fire conditions				
<b>Special Fire Fighting Procedures:</b> NONE, this solution is non-flammable. As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.				
<b>Unusual Fire and Explosion Hazards:</b> NONE				

**Section V. REACTIVITY DATA**

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

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

<b>Steps to Be Taken in Case Material is Released or Spilled:</b> Clean up then dispose of properly according to local laws. Observe all Federal, State and Local laws when disposing of this product.
<b>Waste Disposal Method:</b> Observe all Federal, State and Local laws when disposing of this product.
<b>Precautions to Be taken in Handling and Storing:</b> 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.
<b>Other Precautions:</b> 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

<b>Respiratory Protection (Specify Type):</b> Wear appropriate respirator if ventilation is inadequate		
<b>Ventilation</b>	<b>Local Exhaust:</b> NONE	<b>Special:</b> NONE
<b>Ventilation</b>	<b>Mechanical (General):</b> NONE	<b>Other:</b> NONE
<b>Protective Gloves:</b> Not required for general use	<b>Eye Protection:</b>	Safety Glasses
<b>Other Protective Clothing or Equipment:</b> Eye wash station should be available.		
<b>Work/Hygienic Practices:</b> 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.*

**Document Number: ASI-000001 – Rev. B**