

# MATERIAL SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **4M KCl Electrode Filling Solution**  
Catalog Number: **RFOZNO**

*Analytical Sensors & Instruments, Ltd.*  
12800 Park One Drive  
Sugar Land, TX USA 77478  
Telephone Numbers: (281) 565-8818 (8am - 5pm CST)

MSDS Number: RFOZNO  
Chemical Name: Not applicable  
CAS No.: Not applicable  
Chemical Formula: Not applicable  
Chemical Family: Not applicable  
Hazard: May cause eye irritation.  
Date of MSDS Preparation:  
1/1/2008

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Demineralized Water

CAS No.: 7732-18-5  
TSCA CAS Number: 7732-18-5  
Percent Range:  
65.0-75.0  
Percent Range Units: volume/volume  
LD50: None reported  
LC50: None reported  
TLV: Not established  
PEL: Not established  
Hazard: No effects anticipated.

### Potassium Chloride

CAS No.: 7447-40-7  
TSCA CAS Number: 7447-40-7  
Percent Range: 25.0-35.0  
Percent Range Units: weight/volume  
LD50: Oral rat  
LD50=2600mg/kg  
LC50: None reported.  
TLV: Not established.  
PEL: Not established.  
Hazard: May cause irritation.

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## 3. HAZARDS IDENTIFICATION

Emergency Overview:  
Appearance: Clear, colorless liquid  
Odor: None  
MAY CAUSE EYE IRRITATION

HMIS:  
Health: 1  
Flammability: 0  
Reactivity: 0  
Protective Equipment: X – see protective equipment, Section 8.

NFPA:  
Health: 1  
Flammability: 0  
Reactivity: 0  
Symbol: Not applicable

Potential Health Effects:

Eye Contact: May cause irritation

Skin Contact: None reported

Skin Absorption: None reported

Target Organs: None reported

Ingestion: Very large doses may cause: abdominal cramps weakness circulatory disturbances heart problems central nervous system effects

Target Organs: Central nervous system

Inhalation: No effects anticipated

Target Organs: Not applicable

Medical Conditions Aggravated: Pre-existing kidney conditions

Chronic Effects: None reported

Cancer/Reproductive Toxicity Information:

This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

Additional Cancer/Reproductive Toxicity Information: None reported

Toxicologically Synergistic Products: None reported

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#### 4. FIRST AID

Eye Contact:

Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: None required.

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#### 5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Auto ignition Temperature: Not applicable

Hazardous Combustion Products: Not applicable

Fire/Explosion Hazards: None reported

Static Discharge: Nonreported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

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#### 6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice: Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA29CFR1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section13, Special Instructions for disposal assistance.

Containment Technique: Releases of this material may contaminate the environment. Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment. Dike the spill to contain material for later disposal.

Clean-up Technique: Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Dispose of material in an E.P.A. approved hazardous waste facility. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

Special Instructions (for accidental release):

Product is regulated as RCRA hazardous waste.

304 EHS RQ (40CFR355): Not applicable

D.O.T. Emergency Response Guide Number: None

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#### 7. HANDLING/STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling.  
Maintain general industrial hygiene practices when using this product.  
Storage: Keep container tightly closed when not in use.  
Flammability Class: Not applicable

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## 8. EXPOSURE CONTROLS/PROTECTIVE EQUIPMENT

Engineering Controls: Have an eye wash station nearby. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: lab coat disposable latex gloves

Inhalation Protection: adequate ventilation Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

TLV: Not established

PEL: Not established

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## 9. PHYSICAL/CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: None

pH: 5.5-8.0

Vapor Pressure: Not determined

Vapor Density (air=1): Not determined

Boiling Point: 106°C

Melting Point: -6°C

Specific Gravity (water=1): 1.12

Evaporation Rate (water=1): Not determined

Volatile Organic Compounds Content: Not applicable

Partition Coefficient (n-octanol/water): Not applicable

Solubility:

Water: Miscible

Acid: Miscible

Metal Corrosivity:

Steel: Not determined

Aluminum: Not determined

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## 10. STABILITY/REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures

Evaporation Reactivity/Incompatibility: May react violently in contact with: bromine trifluoride sulfuric acid

Hazardous Decomposition: None reported

Hazardous Polymerization: Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

Product Toxicological Data

LD50: None reported

LC50: None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

Ingredient Toxicological Data:

Potassium Chloride:

Oral rat LD50=2600mg/kg,

Oral human LDLo =20mg/kg

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## 12. ECOLOGICAL INFORMATION

Product Ecological Information: No ecological data available for this product.

Ingredient Ecological Information:--No ecological data available for the ingredients of this product.

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### 13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D011

Special Instructions (Disposal): Dispose of material in an E.P.A. approved hazardous waste facility.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

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### 14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

DOT Hazard Class: NA

DOT Subsidiary Risk: NA

DOT ID Number: NA

DOT Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

ICAO Hazard Class: NA

ICAO Subsidiary Risk: NA

ICAO ID Number: NA

ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

I.M.O. Hazard Class: NA

I.M.O. Subsidiary Risk: NA

I.M.O. ID Number: NA

I.M.O. Packing Group: NA

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### 15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29CFR1910.1200)

E.P.A.:

S.A.R.A. Title III Section311/312 Categorization (40CFR370): Immediate (Acute) Health Hazard

S.A.R.A. Title III Section313 (40CFR372): This product does NOT contain any chemical subject to the reporting requirements of Section313 of Title III of SARA.

302(EHS) TPQ(40CFR355): Not applicable

304 CERCLA RQ (40CFR302.4): Not applicable

304 EHSRQ (40CFR355): Not applicable

Clean Water Act(40CFR116.4): Not applicable

RCRA: Contains RCRA regulated substances. See Section13,

EPA Waste ID Number .C.P.S.C.: Not applicable

State Regulations: CaliforniaProp.65: No Prop.65 listed chemicals are present in this product.

Identification of Prop.65 Ingredient(s): Not applicable

Trade Secret Registry: Not applicable

National Inventories: U.S. Inventory

Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40CFR710).

TSCA CAS Number: Not applicable

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### 16. OTHER INFORMATION

Intended Use: Electrode filling solution

References: 29CFR1900-1910 (Code of Federal Regulations-Labor). The Merck Index, 11<sup>th</sup> Ed. Rahway, New Jersey: Merck and Co., Inc. Fire Protection Guide on Hazardous Materials, 10<sup>th</sup> Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10<sup>th</sup> Ed. Quincy, MA: National Fire Protection Association,1991.

Revision Summary: NA

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**Legend:**

NA - Not Applicable  
w/w - weight/weight  
ND - Not Determined  
w/v - weight/volume  
NV-Not Available  
v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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