MATERIAL SAFETY DATA SHEET
KCL GEL REFERENCE FILL SOLUTION

SECTION I: GENERAL INFORMATION
PRODUCT NAME: Ref Fill Solution, KCl, Thin Gel, PHE-1304 Series and other generic electrodes

CHEMICAL NAME: Potassium Chloride/Sodium Carboxymethyl-Cellulose/Silver Chloride in Water
CHEMICAL FAMILY: salt solution
DOT SHIPPING INFO: none
IATA SHIPPING INFO: none

SECTION II: INGREDIENTS

<table>
<thead>
<tr>
<th>CAS NO.</th>
<th>%</th>
<th>CHEMICAL NAME(S)</th>
<th>LD50 (mg/kg) oral-rat</th>
<th>OSHA/PEL ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>7447-40-7</td>
<td>30.00%</td>
<td>Potassium Chloride</td>
<td>383</td>
<td>none</td>
</tr>
<tr>
<td>7783-90-6</td>
<td>0.01%</td>
<td>Silver Chloride</td>
<td>330</td>
<td>none</td>
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<tr>
<td>9004-32-4</td>
<td>5.00%</td>
<td>Carboxymethylcellulose, none Sodium Salt</td>
<td>none</td>
<td>none</td>
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<tr>
<td>7732-18-5</td>
<td>64.99%</td>
<td>Water</td>
<td>-</td>
<td>none</td>
</tr>
</tbody>
</table>

SECTION III: PHYSICAL DATA
BOILING POINT: 104°C
SPECIFIC GRAVITY: 1.26
VAPOR PRESSURE: N/A
FREEZING POINT: -4°C
VAPOR DENSITY: N/A
pH: 5.5-8
WATER SOLUBILITY: Soluble
APPEARANCE & ODOR: Amber, odorless gel-like solution

SECTION IV: FIRE & EXPLOSION HAZARD DATA
FLASHPOINT: Not flammable
AUTOIGNITION TEMPERATURE: N/A
EXTINGUISHING MEDIA: Water, CO₂, dry chemical
SPECIAL FIRE FIGHTING PROCEDURES: N/A
UNUSUAL FIRE & EXPLOSION HAZARDS: N/A
SECTION V: HEALTH HAZARD DATA
EFFECTS OF OVEREXPOSURE: Dizziness, nausea, weakness if taken internally. May cause eye and skin irritation. May be absorbed through skin
EMERGENCY & FIRST AID: Wash off affected area with water or induce vomiting if ingested.
EYES & SKIN: Wash off with large amounts of water for 15 minutes.

SECTION VI: REACTIVITY DATA
STABLE: yes
CONDITIONS TO AVOID: Storing near heat or incompatible chemicals
INCOMPATIBILITY: Reducing agents, B, BaS, Na acetate, Ti, S, trichloroethylene, charcoal
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon upon heating to decomposition
HAZARDOUS POLYMORPHIZATION: Will not occur

SECTION VII: SPILL OR LEAK PROCEDURES
STEPS TO BE TAKEN: Cover spill with dry sand or vermiculite, mix and collect in a well-marked or glass container. Close container tightly. Submit or retain for disposal.
WASTE DISPOSAL METHOD: Observe all federal, state, and local laws for disposal of trihydric alcohols.

SECTION VIII: SPECIAL PROTECTION INFORMATION
RESPIRATORY PROTECTION: N/A
VENTILATION: N/A
PROTECTIVE GLOVES: Rubber
EYE PROTECTION: Safety goggles
OTHER PROTECTIVE EQUIPMENT: N/A

SECTION IX: SPECIAL PRECAUTIONS
PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: Store at room temperature and keep cap tightly sealed to protect product integrity. Protect container from physical damage. Wash thoroughly after use. SARA Title III: The chemicals in this product do not appear on this listing.
OTHER PRECAUTIONS: NFPA Rating (0-4): Health-0, Fire-0, Reactivity-0, Specific-0.

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NAME: Peter Boyle/R & D Director

SIGNATURE: Peter F. Boyle