MATERIAL SAFETY DATA SHEET
Part#ISE-8755-S1

SECTION I: GENERAL INFORMATION
PRODUCT NAME: 0.1M Silver Standard

CHEMICAL NAME: Silver Nitrate in Water
CHEMICAL FAMILY: salt solution
DOT SHIPPING INFO: Testing by Bureau of Explosives has indicated that this is not an oxidizer.
IATA SHIPPING INFO: Testing by Bureau of Explosives has indicated that this is not an oxidizer.

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>7761-88-8</td>
<td>1.7%</td>
<td>Silver Nitrate</td>
<td>341</td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>98.3%</td>
<td>Water</td>
<td>-</td>
<td>none</td>
</tr>
</tbody>
</table>

SECTION III: PHYSICAL DATA

BOILING POINT: 100°C
SPECIFIC GRAVITY: 1.02
VAPOR PRESSURE: N/A
FREEZING POINT: 0°C
VAPOR DENSITY: N/A
pH: 4-6.5
WATER SOLUBILITY: Soluble
APPEARANCE & ODOR: Colorless, odorless liquid

SECTION IV: FIRE & EXPLOSION HAZARD DATA

FLASHPOINT: Not flammable
AUTOIGNITION TEMPERATURE: N/A
EXTINGUISHING MEDIA: Any
SPECIAL FIRE FIGHTING PROCEDURES: N/A
UNUSUAL FIRE & EXPLOSION HAZARDS: May oxidize and render other materials more combustible if allowed to dry out upon them.
SECTION V: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Metallic taste in mouth, anxiety, constipation, nausea, pallor, weakness, insomnia, headache, muscle pain, and possible severe abdominal pain.

EMERGENCY & FIRST AID: Wash off contact area with water.

EYES & SKIN: Wash off skin with plenty of water. Irrigate eyes for at least 10 minutes.

INGESTION/INHALATION: Induce vomiting with tablespoonful of sodium chloride (table salt) in glass of warm water. Repeat until vomit fluid is clear. Give whites of eggs beaten with water. Consult physician.

SECTION VI: REACTIVITY DATA

STABLE: yes

CONDITIONS TO AVOID: Storing near heat or incompatible chemicals.

INCOMPATIBILITY: Reducing agents, B, BaS, charcoal, S, trichloroethylene

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides upon heating to decomposition

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VII: SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Dilute spill with water, clean up and store for waste disposal.

WASTE DISPOSAL METHOD: Controlled by OSHA Standard.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: N/A

VENTILATION: Control to exposure limits.

PROTECTIVE GLOVES: Any

EYE PROTECTION: Safety goggles

OTHER PROTECTIVE EQUIPMENT: Lab coat

SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: Silver metal and its inorganic compounds are regulated under OSHA Standard (29 CFR 1910.1025) and section 313 of SARA Title III.

OTHER PRECAUTIONS: No food in work area, always wash hands and protective clothing after using these products. NFPA rating (0-4): Fire-0, Health-2, Reactivity-0, Specific-0.

ISSUE DATE: January 6, 2004

NAME: Peter Boyle, R & D Director

SIGNATURE: Peter F. Boyle