Section 1 - Chemical Product and Company Identification

**MSDS Name:**
Gold Chloride Solutions

**Catalog Numbers:**
LC14890, LC14895

**Synonyms:**
Gold AA standard, 1000 ppm; Gold chloride solution, 1%

**Company Identification:**
LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

**Company Phone Number:**
(412) 826-5230

**Emergency Phone Number:**
(800) 424-9300

**CHEMTREC Phone Number:**
(800) 424-9300 or
011-703-527-3887

Section 2 – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>&gt;98</td>
</tr>
<tr>
<td>16961-25-4</td>
<td>Gold Chloride</td>
<td>0.2-1</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**Emergency Overview**

**Appearance:** clear, yellow solution

**Warning:** May cause irritation or burns to eyes, skin, and gastrointestinal tract.

**Target Organs:** eyes, skin, mucous membranes

**Potential Health Effects**

**Eye:**
May cause eye irritation.

**Skin:**
May cause skin irritation.

**Ingestion:**
May cause digestive tract irritation.

**Inhalation:**
May cause respiratory tract irritation.

**Chronic:**
May cause dermatitis and conjunctivitis. Gold compounds in general can cause bone marrow depression and kidney abnormalities.
Section 4 - First Aid Measures

**Eyes:**
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

**Ingestion:**
Do NOT induce vomiting. If victim is conscious, give 2-4 cupfuls of water. Get medical aid at once.

**Inhalation:**
Move victim to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if necessary. Get medical aid.

**Notes to Physician:**
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

**General Information:**
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with metals may evolve flammable hydrogen gas.

**Extinguishing Media:**
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**
Not applicable.

**Flash Point:**
Not applicable.

**NFPA Rating:**
Health- 2, Flammability- 0, Instability- 0.

**Explosion Limits:**
Lower: N/A  Upper: N/A

Section 6 - Accidental Release Measures

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in suitable containers labeled for later disposal.

Section 7 - Handling and Storage
Material Safety Data Sheet
Gold Chloride Solutions

Handling:
Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage:
Store tightly closed at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
<tr>
<td>Gold Chloride</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
<td>None of the components are on this list.</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
None

Personal Protective Equipment

Eyes:
Do not wear contact lenses when working with chemicals. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate protective clothing to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Clear liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH:</td>
<td>Acidic</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
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</tr>
<tr>
<td>Vapor Density:</td>
<td>No information found</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No information found</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No information found</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>&gt; 212°F (&gt; 100°C)</td>
</tr>
<tr>
<td>Freezing/Melting Point:</td>
<td>&lt; 32°F (&lt; 0°C)</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No information found.</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>Soluble</td>
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<tr>
<td>Specific Gravity/Density:</td>
<td>1.0</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>No information found.</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>No information found.</td>
</tr>
</tbody>
</table>
Section 10 - Stability and Reactivity

**Chemical Stability:**
Stable under normal temperatures and pressures.

**Conditions to Avoid:**
Incompatible materials, light, excess heat.

**Incompatibilities with Other Materials:**
Strong bases, carbonates, cyanides, sulfides, metals.

**Hazardous Decomposition Products:**
Hydrogen chloride, chlorine.

**Hazardous Polymerization:**
Has not been reported.

Section 11 - Toxicological Information

**RTECS:**
- CAS# 7732-18-5: ZC0110000.
- CAS# 16961-25-4: MD5428000.

**LD50/LC50:**
- CAS# 7732-18-5:
  - Oral, rat: LD50 = >90 mL/kg.
- CAS# 16961-25-4:
  - No information found.

**Carcinogenicity:**
- CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
- CAS# 16961-25-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**
- No information found

**Teratogenicity:**
- No information found

**Reproductive:**
- No information found

**Mutagenicity:**
- No information found

**Neurotoxicity:**
- No information found

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.
Material Safety Data Sheet
Gold Chloride Solutions

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated
Hazard Class: 
UN Number: 
Packing Group: 

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 16961-25-4 is not on the TSCA Inventory; however, its anhydrous form is on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40CFR 270.3(u)(2)).
SARA Reportable Quantities (RQ):
None of the components are on this list.
CERCLA/SARA Section 313:
None of the components are on this list.
OSHA - Highly Hazardous:
None of the chemicals in this product are considered highly hazardous by OSHA.

US State
State Right to Know:
None of the components are on lists from California, Pennsylvania, Minnesota, Massachusetts, Florida, or New Jersey.
California Regulations:
None.

European/International Regulations
Canadian DSL/NDSL:
CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 16961-25-4 is not listed on Canada’s DSL or NDSL Lists.
Canada Ingredient Disclosure List:
CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 16961-25-4 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: February 17, 1998
Revision Date: January 31, 2013

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