1 Identification of the substance/mixture and of the company/undertaking

- English additional compounds
- Product identifier
- Product Name: Gold Tuning Solution, Part Number 8500-7000
- Part Number: 8500-7000
- Application of the substance / the mixture
  Analytical Chemistry
  A 100mL Solution
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies Australia Pty Ltd
  679 Springvale Road
  Mugrave
  Victoria 3170, Australia
- Further information obtainable from: product safety department
- Emergency telephone number: CHEMTREC®: +(61) - 290372994

2 Composition/information on ingredients

- Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components:
  - 7647-01-0 hydrochloric acid C R34; Xi R37 2.0%
- CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION
  - 7440-57-5 Gold 0.01%
  - 7732-18-5 water, distilled, conductivity or of similar purity 97.99%
- Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- Classification of the substance or mixture
  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
  - Information concerning particular hazards for human and environment:
    The product does not have to be labelled due to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.
- Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- Label elements
- Labelling according to EU guidelines:
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- Special labelling of certain preparations:
  Safety data sheet available for professional user on request.

4 First aid measures

- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
5 Firefighting measures

- **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
  - **Precautions for safe handling:**
    - No special measures required.
    - Follow good laboratory practices.
  - **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:**
    - No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.
  - **Specific end use(s)**: No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**
  - 7647-01-0 hydrochloric acid
    - NES Peak limitation: 7.5 mg/m³, 5 ppm
- **Additional information:**
  - **General protective and hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals.
  - **Respiratory protection:** Not required.
  - **Protection of hands:**
    - The glove material has to be impermeable and resistant to the product/the substance/the preparation.
    - Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture.
    - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  - **Material of gloves**
    - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
    - **Penetration time of glove material**
      - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - **Eye protection:** Goggles recommended during refilling.
### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td>· Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>· Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>· Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>· Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>· Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· pH-value</td>
<td>&lt;1</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>· Melting point/Melting range</td>
<td>0 °C (32°F)</td>
</tr>
<tr>
<td>· Boiling point/Boiling range</td>
<td>100 °C (212°F)</td>
</tr>
<tr>
<td>· Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Flammability (solid, gaseous)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Ignition temperature</td>
<td></td>
</tr>
<tr>
<td>· Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Self-igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>· Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>· Explosion limits</td>
<td></td>
</tr>
<tr>
<td>· Lower</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Upper</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Vapour pressure at 20 °C</td>
<td>23 hPa</td>
</tr>
<tr>
<td>· Density</td>
<td>1.0 g/mL @ 20 °C</td>
</tr>
<tr>
<td>· Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Solubility in / Miscibility with water</td>
<td>Miscible</td>
</tr>
<tr>
<td>· Partition coefficient (n-octanol/water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Viscosity</td>
<td></td>
</tr>
<tr>
<td>· Dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Solvent content</td>
<td></td>
</tr>
<tr>
<td>· Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>· Water</td>
<td>98.0 %</td>
</tr>
<tr>
<td>· VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>· Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Thermal decomposition / conditions to be avoided</td>
<td>No decomposition if used according to specifications.</td>
</tr>
<tr>
<td>· Incompatible materials</td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td>· Hazardous decomposition products</td>
<td>No dangerous decomposition products known.</td>
</tr>
</tbody>
</table>

### 11 Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Acute toxicity</td>
<td></td>
</tr>
<tr>
<td>· Primary irritant effect</td>
<td></td>
</tr>
<tr>
<td>· on the skin</td>
<td>No irritant effect.</td>
</tr>
<tr>
<td>· on the eye</td>
<td>No irritating effect.</td>
</tr>
<tr>
<td>· Sensitisation</td>
<td>No sensitising effects known.</td>
</tr>
</tbody>
</table>
Additional toxicological information:
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
- Additional ecological information:
  - General notes: Generally not hazardous for water

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - ADG, IMDG, IATA: UN1789
- UN proper shipping name
  - ADG: 1789 HYDROCHLORIC ACID
  - IMDG, IATA: HYDROCHLORIC ACID
- Transport hazard class(es)
  - ADG, IMDG, IATA
    - Class: 8 Corrosive substances.
    - Label: 8
- Packing group
  - ADG, IMDG, IATA: III
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user
  - Danger code (Kemler): Warning: Corrosive substances.
  - EMS Number: 80 F-A,S-B
  - Segregation groups: Acids
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.
- Transport/Additional information:
  - ADG
    - Limited quantities (LQ): 5L
      - Code: EI
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 1000 ml
  - Excepted quantities (EQ)
## 15 Regulatory information

- **Australian Inventory of Chemical Substances**
  All ingredients are listed.

- **Standard for the Uniform Scheduling of Medicines and Poisons**
  7647-01-0 hydrochloric acid  
  S5, S6

- **Labelling according to EU guidelines:**
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

- **Special labelling of certain preparations:**
  Safety data sheet available for professional user on request.

## 16 Other information

Disclaimer: The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Relevant phrases**
  - R34 Causes burns.
  - R37 Irritating to respiratory system.

- **Department issuing SDS:**
  product safety department

- **Contact:**
  Agilent Technologies Australia Pty Ltd
  1800 802 402

| Transport category | 3 |
| Tunnel restriction code | E |
| IMDG | 5L |
| Limited quantities (LQ) | Code: E1 |
| Excepted quantities (EQ) | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 1000 ml |