1 Identification

- **Product identifier**
- **Product Name:** Rhodium Internal Standard Stock Solution, Part Number 8500-6945
- **Part Number:** 8500-6945
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the mixture**
  Analytical Chemistry
  A 100mL Solution
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Agilent Technologies Manufacturing GmbH & Co. KG
  - Hewlett-Packard-Str. 8
  - 76337 Waldbronn
  - Germany
- **Information department:** product safety department
- **Emergency telephone number:** CHEMTREC®: 1-800-815-308

2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
  - GHS label elements Void
  - Hazard pictograms Void
  - Signal word Void
  - Hazard statements Void
- **Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**
  - 7647-01-0 hydrochloric acid
    - Skin Corr. 1B, H314; STOT SE 3, H335 2.0%
  - 7440-16-6 Rhodium from Rhodium trichloride trihydrate
    - Eye Dam. 1, H318; Acute Tox. 4, H302 0.001%
  - 7732-18-5 water, distilled, conductivity or of similar purity
    - 97.999%
- **Chemical identification of the substance/preparation**
  - 7647-01-0 hydrochloric acid
  - 7440-16-6 Rhodium from Rhodium trichloride trihydrate
  - 7732-18-5 water, distilled, conductivity or of similar purity
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of 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.
- **Information for Doctor:**
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed No further relevant information available.
### 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.
- **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 8 for information on personal protection equipment.
- **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 13 for disposal information.

### 7 Handling and storage

- **Handling**: No special measures required.
- **Precautions for safe handling**: No special measures required.
- **Information about protection against explosions and fires**: No special measures required.
- **Conditions for safe storage, including any incompatibilities**: No special requirements.
- **Storage**: No special requirements.
- **Requirements to be met by storerooms and receptacles**: No special requirements.
- **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 systems**: No further data; see item 7.
- **Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-01-0 hydrochloric acid</td>
<td>PEL (Malaysia) 7.5 mg/m³, 5 ppm</td>
</tr>
</tbody>
</table>

- **Additional information**: The lists that were valid during the creation were used as basis.
- **Exposure controls**: The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment**: 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 of the glove material does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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.
- **Material of gloves**: 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

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:** Liquid
  - **Color:** Colorless
  - **Odor:** Odorless
  - **Odour Threshold:** Not applicable.
  - **pH-value:** <1
  - **Melting point/Melting range:** 0 °C (32°F)
  - **Boiling point/Boiling range:** 100 °C (212°F)
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not applicable.
  - **Decomposition temperature:** Not applicable.
  - **Auto igniting:** Product is not selfigniting.
  - **Explosion limits:**
    - **Lower:** Not applicable.
    - **Upper:** Not applicable.
  - **Vapor pressure at 20 °C:** 23 hPa
  - **Density**
    - **Relative density:** Not applicable.
    - **Vapour density:** Not applicable.
    - **Evaporation rate:** Not applicable.
  - **Partition coefficient (n-octanol/water):** Not applicable.
  - **Solvent content:**
    - **Organic solvents:** 0.0 %
    - **Water:** 98.0 %
  - **Viscosity:**
    - **Dynamic:** Not applicable.
    - **Kinematic:** Not applicable.
  - **Other information:** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The product is not subject to classification according to internally approved calculation methods for preparations:
    When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    7647-01-0 hydrochloric acid
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability No further relevant information available.
  - Behavior in environmental systems:
  - Bioaccumulative potential No further relevant information available.
  - Mobility in soil No further relevant information available.
  - Additional ecological information:
    - General notes: Generally not hazardous for water
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
    - Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA UN1789

- UN proper shipping name
  - DOT Hydrochloric acid
  - ADR 1789 Hydrochloric acid
  - IMDG, IATA HYDROCHLORIC ACID
### 41.2.4 Transport hazard class(es)

- **DOT**
  - **Class**
  - **Label**
  - **ADR, IMDG, IATA**
    - **Class**
    - **Label**
    - **Packing group**
      - **DOT, ADR, IMDG, IATA**
      - **Environmental hazards:**
        - **Marine pollutant:**
      - **Special precautions for user**
        - **Danger code (Kemler):**
        - **EMS Number:**
        - **Segregation groups**
      - **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
        - **Transport/Additional information:**
          - **ADR**
          - **Excepted quantities (EQ)**
            - **Code:** E1
            - **Maximum net quantity per inner packaging:** 30 ml
            - **Maximum net quantity per outer packaging:** 1000 ml
          - **IMDG**
          - **Limited quantities (LQ)**
          - **Excepted quantities (EQ)**
            - **Code:** E1
            - **Maximum net quantity per inner packaging:** 30 ml
            - **Maximum net quantity per outer packaging:** 1000 ml
          - **UN "Model Regulation":**
            - **UN 1789 HYDROCHLORIC ACID, 8, III, (E)**

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - 7647-01-9 hydrochloric acid
    - **Section 313 (Specific toxic chemical listings):**
      - 7647-01-9 hydrochloric acid
  - **TSCA (Toxic Substances Control Act):**
    - All ingredients are listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - None of the ingredients is listed.
41.2.4

- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**
  None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  None of the ingredients is listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    7647-01-0 hydrochloric acid
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.

- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.

- **Department issuing SDS:** product safety department
- **Contact:**
  Agilent Technologies Manufacturing GmbH & Co. KG
  0800 603 1000
  pdl-msds_author@agilent.com

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3