1 Identification

- **Product identifier**
- **Product Name:** ICP-MS Stock Tuning Solution (100 mL), Part Number 5188-6564
- **Part Number:** 5188-6564
- **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**

  
  Skin Irrit. 2 H315 Causes skin irritation.

  Eye Irrit. 2 H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

  GHS07

- **Signal word** Warning
- **Hazard statements**
  Causes skin irritation.
  Causes serious eye irritation.
- **Precautionary statements**
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Specific treatment (see on this label).
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
- **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.

(Contd. on page 2)
4 First-aid measures

- Description of first aid measures
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - 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.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: CO2, extinguishing 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.
  - Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Ensure adequate ventilation.
- 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
    - Ensure good ventilation/exhaustation at the workplace.
    - Prevent formation of aerosols.
  - Information about protection against explosions and fires: No special measures required.
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 with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7697-37-2 nitric acid</td>
</tr>
<tr>
<td>PEL (Malaysia) Long-term value: 5.2 mg/m³, 2 ppm</td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    - Keep away from foodstuffs, beverages and feed.
    -Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes and skin.
  - Breathing equipment:
    - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - Protection of hands:

![Protective gloves](attachment:image)

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:

![Tightly sealed goggles](attachment:image)

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information

- Appearance:
  - Form: Liquid
  - Color: Colorless
  - Odor: Odorless
  - Odour Threshold: Not applicable.
41.2.4

- **pH-value**: <1
- **Change in condition**
  - 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.
- **Ignition temperature**: Not applicable.
- **Decomposition temperature**: Not applicable.
- **Auto igniting**: Product is not selfigniting.
- **Danger of explosion**: Product does not present an explosion hazard.
- **Explosion limits**
  - Lower: Not applicable.
  - Upper: Not applicable.
- **Vapor pressure at 20 °C**: 23 hPa
- **Density**: 1.0 g/mL @ 20 °C
- **Relative density**: Not applicable.
- **Vapour density**: Not applicable.
- **Evaporation rate**: Not applicable.
- **Solubility in / Miscibility with Water**: Miscible
- **Partition coefficient (n-octanol/water)**: Not applicable.
- **Viscosity**
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- **Solvent content**
  - Organic solvents: 0.0 %
  - Water: 98.0 %
- **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: Irritant to skin and mucous membranes.
      - on the eye: Irritating effect.
    - **Sensitization**: No sensitizing effects known.
  - **Additional toxicological information**
    - The product shows the following dangers according to internally approved calculation methods for preparations:
      - Irritant


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:
      Water hazard class 1 (Self-assessment): slightly hazardous for water
      Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - 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: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: UN3264
- UN proper shipping name
  - DOT
    - ADR
    - IMDG, IATA: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)
  - 3264 Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)
  - CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION)
- Transport hazard class(es)
  - DOT
    - Class: 8 Corrosive substances
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
  - **Section 355 (extremely hazardous substances):**
    - 7697-37-2 nitric acid
  - **Section 313 (Specific toxic chemical listings):**
    - 7697-37-2 nitric acid
    - 7439-93-2 Lithium from Lithium carbonate
    - 7440-28-0 Thallium from Thallium nitrate
    - 7440-48-4 cobalt
  - **TSCA (Toxic Substances Control Act):**
    - All ingredients are listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - 7440-48-4 cobalt
    - **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.
### Product Name: ICP-MS Stock Tuning Solution (100 mL), Part Number 5188-6564

#### Chemicals known to cause developmental toxicity:
- 7439-93-2 Lithium from Lithium carbonate

#### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**
  - 7440-48-4 cobalt A3

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.

#### GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).

#### Hazard pictograms

![GHS07]

- **Signal word** Warning
- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Wash thoroughly after handling.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Specific treatment (see on this label).
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
- **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
  - Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
  - Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2