<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5188-6524(Kit)</td>
<td>7500 Series PA Tuning Solution Set</td>
</tr>
</tbody>
</table>

Components:

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5188-6524-1</td>
<td>7500 Series PA Tuning 1</td>
</tr>
<tr>
<td>5188-6524-2</td>
<td>7500 Series PA Tuning 2</td>
</tr>
</tbody>
</table>
1 Identification of the substance/mixture and of the company/undertaking

- English additional compounds
- Product identifier
- Product Name: 7500 Series PA Tuning 1, Part Number 5188-6524-1
- Part Number: 5188-6524-1
- 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 Australia Pty Ltd
  679 Springvale Road
  Mugrave
  Victoria 3170, Australia
- Further information obtainable from: product safety department
- Emergency telephone number: CHEMTREC®: +(61) - 290372994

2 Hazards identification

- Classification of the substance or mixture
  - corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.

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

- Signal word Danger
- Hazard-determining components of labelling: nitric acid
- Hazard statements
  Causes severe skin burns and eye damage.
- Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Do not breathe dust/fume/gas/mist/vapours/spray.
  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Immediately call a POISON CENTER/doctor.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
- Other hazards
  - Results of PBT and vPvB assessment
  - PBT: Not applicable.

(Contd. on page 2)
### 3 Composition/information on ingredients

#### Chemical characterisation: Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7697-38-2 nitric acid</td>
<td>Ox. Liq. 3, H272; Skin Corr. 1A, H314</td>
<td>5.0%</td>
</tr>
<tr>
<td>7440-38-2 arsenic</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H331</td>
<td>0.002%</td>
</tr>
<tr>
<td>7440-41-7 Beryllium from Beryllium Acetate</td>
<td>Acute Tox. 2, H306; Acute Tox. 2, H310; Carc. 1A, H350</td>
<td>0.002%</td>
</tr>
<tr>
<td>7440-43-9 radium (non-pyrophoric)</td>
<td>Acute Tox. 2, H330; Mutagen 2, H341; Carc. 1B, H350; Repr. 2, H361; STOT RE 7, H372</td>
<td>0.002%</td>
</tr>
<tr>
<td>7440-66-6 zinc powder -zinc dust (stabilized)</td>
<td></td>
<td>0.002%</td>
</tr>
<tr>
<td>7439-95-4 magnesium</td>
<td>Pyr. Sol. 1, H250; Water-react. 1, H260</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-92-0 nickel</td>
<td>Carc. 2, H351; STOT RE 1, H372; Skin Sens. 1, H317</td>
<td>0.001%</td>
</tr>
<tr>
<td>7439-92-1 Lead from Lead Oxide</td>
<td>Repr. 1A, H360; STOT RE 2, H375; Acute Tox. 4, H302; Acute Tox. 4, H332</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-39-3 Barium from Barium carbonate</td>
<td>Acute Tox. 4, H302</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-29-0 Thorium from Thorium nitrate hydrate</td>
<td>Ox. Liq. 2, H272; Acute Tox. 3, H301; STOT RE 2, H373; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-25-0 Thallium from Thallium nitrate</td>
<td>Acute Tox. 2, H300; Acute Tox. 2, H330; STOT RE 2, H373</td>
<td>0.001%</td>
</tr>
<tr>
<td>7429-90-3 aluminium</td>
<td>Pyr. Sol. 1, H250; Water-react. 2, H261</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-48-4 cobalt</td>
<td>Resp. Sens. 1, H334; Skin Sens. 1, H317</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-47-3 Chromium from Chromium(III) nitrate monohydrate</td>
<td>Ox. Liq. 2, H272; Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-23-5 Sodium from Sodium carbonate</td>
<td>Eye Irrit. 2, H319</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-24-6 Strontium from Strontium carbonate</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-50-8 copper</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-74-6 indium</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7439-94-3 Lutetium from Lutetium (III) Oxide</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</td>
<td>0.001%</td>
</tr>
<tr>
<td>7439-96-5 manganese</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-69-9 bismuth</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-20-2 Scandium from Scandium oxide</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-61-1 Uranium from Uranyl Nitrate Hexahydrate</td>
<td>Acute Tox. 2, H300; Acute Tox. 2, H330; STOT RE 2, H373</td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-62-2 Vanadium from Ammonium trioxovanadate</td>
<td>Acute Tox. 3, H301; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</td>
<td>0.001%</td>
</tr>
<tr>
<td>7439-93-2 Lithium from Lithium carbonate</td>
<td></td>
<td>0.001%</td>
</tr>
<tr>
<td>7440-64-4 Ytterbium from Ytterbium (III) oxide</td>
<td>Acute Tox. 4, H302; Eye Irrit. 2, H319</td>
<td>0.0003%</td>
</tr>
<tr>
<td>7440-65-5 Yttrium from Yttrium oxide</td>
<td></td>
<td>0.0003%</td>
</tr>
<tr>
<td>7732-18-5 water, distilled, conductivity or of similar purity</td>
<td></td>
<td>94.98%</td>
</tr>
</tbody>
</table>

(Contd. on page 3)
4 First aid measures

· Description of first aid measures
  · General information: Immediately remove any clothing soiled by the product.
  · 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. Then consult a doctor.
  · After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
  · 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 Firefighting measures

· Extinguishing media
  · 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.

· Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  · Wear protective equipment. Keep unprotected persons away.
  · 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).
  · Use neutralising agent.
  · Dispose contaminated material as waste according to item 13.
  · 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/exhaustion at the workplace.
    · Prevent formation of aerosols.
  · Information about fire - and explosion protection: No special measures required.

· Conditions for safe storage, including any incompatibilities
  · 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: Keep container tightly sealed.
    · 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.
**Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**
  
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NES Short-term value</th>
<th>NES Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>760-7-2 nitric acid</td>
<td>10 mg/m³, 4 ppm</td>
<td>5.2 mg/m³, 2 ppm</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists valid during the making 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.

  - **Respiratory protection:**
    In case of brief exposure or low pollution use respiratory filter device.
    In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**

  - **Protective gloves**
    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**

---

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**

  - **General Information**
    
  - **Form:** Liquid
  - **Colour:** Colourless
  - **Odour:** Odourless
  - **Odour threshold:** Not applicable.
  - **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:**

    - **Decomposition temperature:** Not applicable.
10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability: No further relevant information available.
- 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: Caustic effect on skin and mucous membranes.
- Skin corrosion/irritation: Strong caustic effect.
- Serious eye damage/irritation: No sensitising effects known.
- Respiratory or skin sensitisation: No sensitising effects known.
- Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  - Corrosive
  - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
41.2.4 Additional ecological information:

· General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Must not reach sewage water or drainage ditch undiluted or unneutralised.
  Danger to drinking water if even small quantities leak into the ground.

· 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 together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:
  · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
  · ADG, IMDG, IATA UN3264

· UN proper shipping name
  · ADG 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION)
  · IMDG, IATA CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION)

· Transport hazard class(es)
  · ADG, IMDG, IATA
    - Class 8 Corrosive substances.
    - Label 8
    - Packing group III

· Environmental hazards:
  · Marine pollutant: No

· Special precautions for user:
  · Danger code (Kemler): Warning: Corrosive substances.
  · EMS Number: F-A.S-B
  · Segregation groups Acids

· Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

· Transport/Additional information:
  · ADG
    - Limited quantities (LQ) 5L
    - Excepted quantities (EQ) Code: E1
      Maximum net quantity per inner packaging: 30 ml
      Maximum net quantity per outer packaging: 1000 ml
    - Transport category 3
    - Tunnel restriction code E

(Contd. on page 7)
41.2.4

IMDG

- Limited quantities (LQ)
- Excepted quantities (EQ) 5L
  Code: E1
  Maximum net quantity per inner packaging: 30 ml
  Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

- UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID SOLUTION), 8, III, (E)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture

  Australian Inventory of Chemical Substances
  7697-37-2 nitric acid
  7440-38-2 arsenic
  7440-41-9 cadmium (non-phyrophoric)
  7439-95-4 magnesium
  7440-02-0 nickel
  7449-92-1 Lead from Lead Oxide
  7440-39-3 Barium from Barium carbonate
  7440-29-1 Thorium from Thorium nitrate hydrate
  7440-28-0 Thallium from Thallium nitrate
  7429-90-5 aluminium
  7440-48-4 cobalt
  7440-47-3 Chromium from Chromium(II) nitrate nonahydrate
  7440-23-5 Sodium from Sodium carbonate
  7440-24-6 Strontium from Strontium carbonate
  7440-50-8 copper

  Standard for the Uniform Scheduling of Medicines and Poisons
  7697-37-2 nitric acid S5, S6
  7440-38-2 arsenic S4, S6, S7
  7440-41-7 Beryllium from Beryllium Acetate S6
  7449-92-1 Lead from Lead Oxide S4
  7440-28-0 Thallium from Thallium nitrate S7
  7440-48-4 cobalt S4
  7439-93-2 Lithium from Lithium carbonate S2, S4

  GHS label elements The product is classified and labelled according to the Globally Harmonised System (GHS).
  - Hazard pictograms

  GHS05

  - Signal word Danger

  - Hazard-determining components of labelling:
    nitric acid

  - Hazard statements
    Causes severe skin burns and eye damage.

  - Precautionary statements
    If medical advice is needed, have product container or label at hand.
    Keep out of reach of children.
    Read label before use.
Do not breathe dust/fume/gas/mist/vapours/spray.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 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.

- Relevant phrases
  H272 May intensify fire; oxidiser.
  H314 Causes severe skin burns and eye damage.

- Department issuing SDS: product safety department
- Contact:
  Agilent Technologies Australia Pty Ltd
  1800 802 402

- 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
  IATA: International Air Transport Association
  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)
  VOC: Volatile Organic Compounds (USA, EU)
  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 Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
1 Identification of the substance/mixture and of the company/undertaking

- English additional compounds
- Product identifier
  - Product Name: 7500 Series PA Tuning 2, Part Number 5188-6524-2
  - Part Number: 5188-6524-2
- 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 Australia Pty Ltd
    679 Springvale Road
    Murrarie
    Victoria 3170, Australia
- Further information obtainable from: product safety department
- Emergency telephone number: CHEMTREC®: +(61) - 290372994

2 Hazards identification

- Classification of the substance or mixture

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

- GHS label elements
  - The product is classified and labelled according to the Globally Harmonised System (GHS).
- Label elements
- Signal word Warning
- Hazard-determining components of labelling:
  - hydrofluoric acid
  - Hazard statements
    - Causes skin irritation.
    - Causes serious eye irritation.
    - May cause respiratory 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.
  - Avoid breathing dust/fume/gas/mist/vapours/spray.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - 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).
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Safety data sheet
according to NOHSC 2003

Product Name: 7500 Series PA Tuning 2, Part Number 5188-6524-2

3 Composition/information on ingredients

- Chemical characterisation: Mixtures
- Description: Mixtures of substances listed below with nonhazardous additions.

- Dangerous components:
  - 7647-01-0 hydrochloric acid  Skin Corr. 1B, H314; STOT SE 3, H335 10.0%
  - 7697-37-2 nitric acid  Ox. Liq. 3, H272; Skin Corr. 1A, H314 1.0%
  - 7664-39-3 hydrofluoric acid  Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; Skin Corr. 1A, H314 0.1%

- CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION
  - 7440-18-8 Ruthenium from Ruthenium (III) chloride trihydrate  Skin Corr. 1B, H314; Eye Dam. 1, H318 0.001%
  - 7440-36-0 antimony  Ox. Liq. 3, H317; Skin Corr. 1A, H314 0.001%
  - 7454-98-7 molybdenum  Skin Corr. 1B, H314 0.001%
  - 7440-56-4 Germanium from Ammonium hexafluorogermanate(IV)  Acute Tox. 3, H331; Acute Tox. 4, H310; Acute Tox. 4, H312; Skin Irrit. 2, H319; Eye Irrit. 2, H319; STOT SE 3, H335 0.001%
  - 7440-05-3 palladium  Self-heat. 2, H252; Ox. Sol. 2, H272 0.001%
  - 7440-32-6 titanium  Self-heat. 1, H251; Water-react. 1, H260 0.001%
  - 7439-88-5 Iridium from Iridium(III) chloride hydrate  Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 0.001%
  - 7732-18-5 water, distilled, conductivity or of similar purity 88.893%

- 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: Immediately remove any clothing soiled by the product.
  - 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. Then consult a doctor.
  - After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
  - 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 Firefighting measures

- Extinguishing media
  - 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.

- Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.

- 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).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
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.

Handling and storage

Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Information about fire - and explosion protection: No special measures required.
Conditions for safe storage, including any incompatibilities
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: Keep container tightly sealed.
Specific end use(s) No further relevant information available.

Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.
Control parameters
Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Workplace limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-01-0 hydrochloric acid</td>
<td>NES Peak limitation: 7.5 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>7697-37-2 nitric acid</td>
<td>NES Short-term value: 10 mg/m³, 4 ppm</td>
</tr>
<tr>
<td></td>
<td>NES Long-term value: 5.2 mg/m³, 2 ppm</td>
</tr>
</tbody>
</table>

Additional information: The lists valid during the making 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.
Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Protection of hands:

Protective gloves

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
9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form: Liquid
  - Colour: Colourless
  - Odour: Odourless
  - Odour threshold: Not applicable.
- **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:**
  - Decomposition temperature: Not applicable.
  - Self-igniting: Product is not selfigniting.
  - Danger of explosion: Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not applicable.
  - Upper: Not applicable.
- **Vapour 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: 88.9 %
  - VOC (EC): 0.00 %
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
  - LD/LC50 values relevant for classification:
    - 7647-01-0 hydrochloric acid
      - Oral LD50 900 mg/kg (rabbit)
  - Primary irritant effect: Caustic effect on skin and mucous membranes.
  - Skin corrosion/irritation: Strong caustic effect.
  - Respiratory or skin sensitisation: No sensitising effects known.
- Additional toxicological information:
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  - Corrosive
  - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- Toxicity
- 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.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water coarse or sewage system.
  - Must not reach sewage water or drainage ditch undiluted or unneutralised.
- 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 together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 6)
## 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>UN3264</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, NITRIC ACID SOLUTION)</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, NITRIC ACID SOLUTION)</td>
</tr>
<tr>
<td>ADG</td>
<td>80</td>
</tr>
<tr>
<td>IMDG, IATA</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Warning: Corrosive substances.</td>
</tr>
<tr>
<td>Danger code (Kemler):</td>
<td>80</td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>Segregation groups</td>
<td>Acids</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>8 Corrosive substances.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of Marpol and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>ADG Limited quantities (LQ)</td>
<td>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>Transport category</td>
<td>2</td>
</tr>
<tr>
<td>Tunnel restriction code</td>
<td>E</td>
</tr>
<tr>
<td>IMDG Limited quantities (LQ)</td>
<td>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, NITRIC ACID SOLUTION), 8, II, (E)</td>
</tr>
</tbody>
</table>

## 15 Regulatory information

<table>
<thead>
<tr>
<th>Safety, health and environmental regulations/legislation specific for the substance or mixture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Inventory of Chemical Substances</td>
<td></td>
</tr>
<tr>
<td>7647-01-0 hydrochloric acid</td>
<td></td>
</tr>
<tr>
<td>7697-37-2 nitric acid</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 7)
Safety data sheet  
according to NOHSC 2003

Product Name: 7500 Series PA Tuning 2, Part Number 5188-6524-2

(Contd. of page 6)

- Standard for the Uniform Scheduling of Medicines and Poisons
  - 7647-01-0 hydrochloric acid S5, S6
  - 7697-37-2 nitric acid S5, S6
  - 7440-36-0 antimony S4

- GHS label elements
  - The product is classified and labelled according to the Globally Harmonised System (GHS).

- Hazard pictograms
  - GHS07

- Signal word
  - Warning

- Hazard-determining components of labelling:
  - hydrofluoric acid

- Hazard statements
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause respiratory 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.
  - Avoid breathing dust/fume/gas/mist/vapours/spray.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - 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).
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.

- 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 accuracy, completeness or suitability for a particular purpose is expressed or implied.

- Relevant phrases
  - H272 May intensify fire; oxidiser.
  - H300 Fatal if swallowed.
  - H310 Fatal in contact with skin.
  - H314 Causes severe skin burns and eye damage.
  - H350 Fatal if inhaled.
  - H335 May cause respiratory irritation.

- Department issuing SDS: product safety department

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

- 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)
Product Name: 7500 Series PA Tuning 2, Part Number 5188-6524-2

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 1: Acute toxicity, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3