

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/29/2019

Version Number 3

Reviewed on 03/29/2019

**1 Identification**

- **Product identifier**
- **Trade name:** ICP Calibration Standard (125 mL)
- **Part number:** ICM-106
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Agilent Technologies, Inc.  
5301 Stevens Creek Blvd.  
Santa Clara, CA 95051 USA
- **Information department:**  
Telephone: 800-227-9770  
e-mail: pdl-msds\_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
nitric acid
- **Hazard statements**  
Causes skin irritation.  
Causes serious eye damage.
- **Precautionary statements**  
Wash thoroughly after handling.  
Wear protective gloves / eye protection / face protection.  
If on skin: Wash with plenty of water.  
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.  
Specific treatment (see on this label).

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Take off contaminated clothing and wash it before reuse.  
 If skin irritation occurs: Get medical advice/attention.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

|            |   |                |
|------------|---|----------------|
| HEALTH     | 3 | Health = 3     |
| FIRE       | 0 | Fire = 0       |
| REACTIVITY | 0 | Reactivity = 0 |

- **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:**

|           |             |      |
|-----------|-------------|------|
| 7697-37-2 | nitric acid | 3.5% |
|-----------|-------------|------|

### 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:** 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:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

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**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 neutralizing agent.

Dispose contaminated material as waste according to item 13.

**· 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.

**· Protective Action Criteria for Chemicals**
**· PAC-1:**

|            |   |                         |
|------------|---|-------------------------|
| 7697-37-2  | nitric acid                               | 0.16 ppm                |
| 7664-39-3  | hydrogen fluoride                         | 1.0 ppm                 |
| 13446-18-9 | magnesium nitrate hexahydrate             | 16 mg/m <sup>3</sup>    |
| 471-34-1   | calcium carbonate                         | 45 mg/m <sup>3</sup>    |
| 7631-99-4  | sodium nitrate                            | 4.1 mg/m <sup>3</sup>   |
| 7757-79-1  | potassium nitrate                         | 9 mg/m <sup>3</sup>     |
| 10026-22-9 | cobalt (II) nitrate hexahydrate           | 0.3 mg/m <sup>3</sup>   |
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate | 1.5 mg/m <sup>3</sup>   |
| 3251-23-8  | copper dinitrate                          | 8.9 mg/m <sup>3</sup>   |
| 10196-18-6 | zinc(II) nitrate hexahydrate              | 27 mg/m <sup>3</sup>    |
| 1327-53-3  | diarsenic trioxide                        | 0.27 mg/m <sup>3</sup>  |
| 7446-08-4  | selenium dioxide                          | 0.84 mg/m <sup>3</sup>  |
| 10042-76-9 | strontium nitrate                         | 5.7 mg/m <sup>3</sup>   |
| 1313-27-5  | molybdenum trioxide                       | 2.3 mg/m <sup>3</sup>   |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate   | 0.27 mg/m <sup>3</sup>  |
| 10022-31-8 | barium nitrate                            | 2.9 mg/m <sup>3</sup>   |
| 10102-45-1 | thallium nitrate                          | 0.078 mg/m <sup>3</sup> |
| 10099-74-8 | lead dinitrate                            | 0.24 mg/m <sup>3</sup>  |
| 7803-55-6  | ammonium trioxovanadate                   | 0.01 mg/m <sup>3</sup>  |
| 10043-35-3 | boric acid                                | 6 mg/m <sup>3</sup>     |
| 7440-69-9  | bismuth                                   | 15 mg/m <sup>3</sup>    |
| 7782-61-8  | iron (III) nitrate nonahydrate            | 22 mg/m <sup>3</sup>    |
| 10377-66-9 | manganese dinitrate                       | 9.8 mg/m <sup>3</sup>   |

**· PAC-2:**

|            |                               |                       |
|------------|-------------------------------|-----------------------|
| 7697-37-2  | nitric acid                   | 24 ppm                |
| 7664-39-3  | hydrogen fluoride             | 24 ppm                |
| 13446-18-9 | magnesium nitrate hexahydrate | 180 mg/m <sup>3</sup> |
| 471-34-1   | calcium carbonate             | 210 mg/m <sup>3</sup> |
| 7631-99-4  | sodium nitrate                | 45 mg/m <sup>3</sup>  |

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|            |   |                        |
|------------|---|------------------------|
| 7757-79-1  | potassium nitrate                         | 100 mg/m <sup>3</sup>  |
| 10026-22-9 | cobalt (II) nitrate hexahydrate           | 23 mg/m <sup>3</sup>   |
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate | 53 mg/m <sup>3</sup>   |
| 3251-23-8  | copper dinitrate                          | 31 mg/m <sup>3</sup>   |
| 10196-18-6 | zinc(II) nitrate hexahydrate              | 300 mg/m <sup>3</sup>  |
| 1327-53-3  | diarsenic trioxide                        | 3.0 mg/m <sup>3</sup>  |
| 7446-08-4  | selenium dioxide                          | 1.6 mg/m <sup>3</sup>  |
| 10042-76-9 | strontium nitrate                         | 62 mg/m <sup>3</sup>   |
| 1313-27-5  | molybdenum trioxide                       | 43 mg/m <sup>3</sup>   |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate   | 2.1 mg/m <sup>3</sup>  |
| 10022-31-8 | barium nitrate                            | 350 mg/m <sup>3</sup>  |
| 10102-45-1 | thallium nitrate                          | 4.3 mg/m <sup>3</sup>  |
| 10099-74-8 | lead dinitrate                            | 180 mg/m <sup>3</sup>  |
| 7803-55-6  | ammonium trioxovanadate                   | 0.11 mg/m <sup>3</sup> |
| 10043-35-3 | boric acid                                | 23 mg/m <sup>3</sup>   |
| 7440-69-9  | bismuth                                   | 170 mg/m <sup>3</sup>  |
| 7782-61-8  | iron (III) nitrate nonahydrate            | 110 mg/m <sup>3</sup>  |
| 10377-66-9 | manganese dinitrate                       | 16 mg/m <sup>3</sup>   |

**PAC-3:**

|            |   |                         |
|------------|---|-------------------------|
| 7697-37-2  | nitric acid                               | 92 ppm                  |
| 7664-39-3  | hydrogen fluoride                         | 44 ppm                  |
| 13446-18-9 | magnesium nitrate hexahydrate             | 1,100 mg/m <sup>3</sup> |
| 471-34-1   | calcium carbonate                         | 1,300 mg/m <sup>3</sup> |
| 7631-99-4  | sodium nitrate                            | 270 mg/m <sup>3</sup>   |
| 7757-79-1  | potassium nitrate                         | 600 mg/m <sup>3</sup>   |
| 10026-22-9 | cobalt (II) nitrate hexahydrate           | 140 mg/m <sup>3</sup>   |
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate | 320 mg/m <sup>3</sup>   |
| 3251-23-8  | copper dinitrate                          | 190 mg/m <sup>3</sup>   |
| 10196-18-6 | zinc(II) nitrate hexahydrate              | 1,800 mg/m <sup>3</sup> |
| 1327-53-3  | diarsenic trioxide                        | 9.1 mg/m <sup>3</sup>   |
| 7446-08-4  | selenium dioxide                          | 9.5 mg/m <sup>3</sup>   |
| 10042-76-9 | strontium nitrate                         | 370 mg/m <sup>3</sup>   |
| 1313-27-5  | molybdenum trioxide                       | 260 mg/m <sup>3</sup>   |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate   | 13 mg/m <sup>3</sup>    |
| 10022-31-8 | barium nitrate                            | 2,100 mg/m <sup>3</sup> |
| 10102-45-1 | thallium nitrate                          | 26 mg/m <sup>3</sup>    |
| 10099-74-8 | lead dinitrate                            | 1,100 mg/m <sup>3</sup> |
| 7803-55-6  | ammonium trioxovanadate                   | 80 mg/m <sup>3</sup>    |
| 10043-35-3 | boric acid                                | 830 mg/m <sup>3</sup>   |
| 7440-69-9  | bismuth                                   | 990 mg/m <sup>3</sup>   |
| 7782-61-8  | iron (III) nitrate nonahydrate            | 640 mg/m <sup>3</sup>   |

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10377-66-9 manganese dinitrate

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96 mg/m<sup>3</sup>

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** 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 receptacle tightly sealed.
- **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**

**Components with limit values that require monitoring at the workplace:**
**7697-37-2 nitric acid**

|     |  |
|-----|--|
| PEL | Long-term value: 5 mg/m <sup>3</sup> , 2 ppm   |
| REL | Short-term value: 10 mg/m <sup>3</sup> , 4 ppm<br>Long-term value: 5 mg/m <sup>3</sup> , 2 ppm   |
| TLV | Short-term value: 10 mg/m <sup>3</sup> , 4 ppm<br>Long-term value: 5.2 mg/m <sup>3</sup> , 2 ppm |

- **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 skin.
  - Avoid contact with the eyes and skin.
- **Breathing equipment:**
  - When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  - Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
- **Protection of hands:**
  - Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

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- **Material of gloves**

For normal use: nitrile rubber, 11-13 mil thickness

For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**

For normal use: nitrile rubber: 1 hour

For direct contact with the chemical: butyl rubber: &gt;4 hours

- **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

|              |       |
|--------------|-------|
| <b>Form:</b> | Fluid |
|--------------|-------|

|               |           |
|---------------|-----------|
| <b>Color:</b> | Colorless |
|---------------|-----------|

|              |          |
|--------------|----------|
| <b>Odor:</b> | Odorless |
|--------------|----------|

|                        |                 |
|------------------------|-----------------|
| <b>Odor threshold:</b> | Not determined. |
|------------------------|-----------------|

|                  |                 |
|------------------|-----------------|
| <b>pH-value:</b> | Not determined. |
|------------------|-----------------|

- **Change in condition**

|                                     |               |
|-------------------------------------|---------------|
| <b>Melting point/Melting range:</b> | Undetermined. |
|-------------------------------------|---------------|

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Boiling point/Boiling range:</b> | 100 °C (212 °F) |
|-------------------------------------|-----------------|

|                     |                 |
|---------------------|-----------------|
| <b>Flash point:</b> | Not applicable. |
|---------------------|-----------------|

|                                       |                 |
|---------------------------------------|-----------------|
| <b>Flammability (solid, gaseous):</b> | Not applicable. |
|---------------------------------------|-----------------|

|                                   |                 |
|-----------------------------------|-----------------|
| <b>Decomposition temperature:</b> | Not determined. |
|-----------------------------------|-----------------|

|                       |                              |
|-----------------------|------------------------------|
| <b>Auto igniting:</b> | Product is not selfigniting. |
|-----------------------|------------------------------|

|                             |   |
|-----------------------------|---|
| <b>Danger of explosion:</b> | Product does not present an explosion hazard. |
|-----------------------------|---|

- **Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
|---------------|-----------------|

|               |                 |
|---------------|-----------------|
| <b>Upper:</b> | Not determined. |
|---------------|-----------------|

|   |                     |
|---|---------------------|
| <b>Vapor pressure at 20 °C (68 °F):</b> | 23 hPa (17.3 mm Hg) |
|---|---------------------|

|                                  |   |
|----------------------------------|---|
| <b>Density at 20 °C (68 °F):</b> | 1.01165 g/cm <sup>3</sup> (8.44222 lbs/gal) |
|----------------------------------|---|

|                         |                 |
|-------------------------|-----------------|
| <b>Relative density</b> | Not determined. |
|-------------------------|-----------------|

|                      |                 |
|----------------------|-----------------|
| <b>Vapor density</b> | Not determined. |
|----------------------|-----------------|

|                         |                 |
|-------------------------|-----------------|
| <b>Evaporation rate</b> | Not determined. |
|-------------------------|-----------------|

- **Solubility in / Miscibility with**

|               |                                   |
|---------------|-----------------------------------|
| <b>Water:</b> | Not miscible or difficult to mix. |
|---------------|-----------------------------------|

|   |                 |
|---|-----------------|
| <b>Partition coefficient (n-octanol/water):</b> | Not determined. |
|---|-----------------|

- **Viscosity:**

|                                  |            |
|----------------------------------|------------|
| <b>Dynamic at 20 °C (68 °F):</b> | 0.952 mPas |
|----------------------------------|------------|

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|                          |  |
|--------------------------|--|
| <b>Kinematic:</b>        | Not determined.                            |
| <b>Solvent content:</b>  |  |
| <b>Water:</b>            | 96.4 %                                     |
| <b>VOC content:</b>      | 0.00 %<br>0.0 g/l / 0.00 lb/gal            |
| <b>Solids content:</b>   | 0.0 %                                      |
| <b>Other information</b> | 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:**

- **LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

|            |          |                       |
|------------|----------|-----------------------|
| Oral       | LD50     | 1,276,000 mg/kg (rat) |
| Dermal     | LD50     | 5,000 mg/kg           |
| Inhalative | LC50/4 h | 396 mg/L              |

**7697-37-2 nitric acid**

|            |          |               |
|------------|----------|---------------|
| Inhalative | LC50/4 h | 67 mg/L (rat) |
|------------|----------|---------------|

**7664-39-3 hydrogen fluoride**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 1,276 mg/kg (rat) |
|------|------|-------------------|

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

|            |   |    |
|------------|---|----|
| 10026-22-9 | cobalt (II) nitrate hexahydrate           | 2B |
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate | 1  |
| 1327-53-3  | diarsenic trioxide                        | 1  |

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|            |   |    |
|------------|---|----|
| 7446-08-4  | selenium dioxide                        | 3  |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate | 1  |
| 10099-74-8 | lead dinitrate                          | 2A |
| 543-81-7   | acetic acid beryllium salt              | 1  |

**· NTP (National Toxicology Program)**

|            |   |   |
|------------|---|---|
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate | K |
| 1327-53-3  | diarsenic trioxide                        | K |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate   | K |
| 10099-74-8 | lead dinitrate                            | R |
| 543-81-7   | acetic acid beryllium salt                | K |

**· 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:**  
 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.  
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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, IMDG, IATA** UN3264

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|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT</li> <li>· IMDG, IATA</li> </ul>   | Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)<br>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID) |
| <ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT, IMDG, IATA</li> </ul>  | 8 Corrosive substances<br>8  |
|   |  |
| <ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>   | 8 Corrosive substances<br>8  |
| <ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, IMDG, IATA</li> </ul>   | III  |
| <ul style="list-style-type: none"> <li>· Environmental hazards:</li> </ul>   | Not applicable.  |
| <ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> <li>· Stowage Code</li> </ul> | Warning: Corrosive substances<br>80<br>F-A,S-B<br>Acids<br>A<br>SW2 Clear of living quarters.                          |
| <ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>  | Not applicable.  |
| <ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· DOT</li> <li>· Quantity limitations</li> </ul>   | On passenger aircraft/rail: 5 L<br>On cargo aircraft only: 60 L  |
| <ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>  | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| <ul style="list-style-type: none"> <li>· UN "Model Regulation":</li> </ul>   | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III  |

### 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        |
| 7664-39-3 | hydrogen fluoride  |
| 1327-53-3 | diarsenic trioxide |

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| <b>Section 313 (Specific toxic chemical listings):</b> |   |
|--|---|
| 7697-37-2  | nitric acid                               |
| 7664-39-3  | hydrogen fluoride                         |
| 13446-18-9   | magnesium nitrate hexahydrate             |
| 7757-79-1  | potassium nitrate                         |
| 10026-22-9   | cobalt (II) nitrate hexahydrate           |
| 13478-00-7   | Nitric acid, nickel(2+) salt, hexahydrate |
| 3251-23-8  | copper dinitrate                          |
| 10196-18-6   | zinc(II) nitrate hexahydrate              |
| 1327-53-3  | diarsenic trioxide                        |
| 7446-08-4  | selenium dioxide                          |
| 10042-76-9   | strontium nitrate                         |
| 1313-27-5  | molybdenum trioxide                       |
| 10022-68-1   | Nitric acid, cadmium salt, tetrahydrate   |
| 10022-31-8   | barium nitrate                            |
| 10102-45-1   | thallium nitrate                          |
| 10099-74-8   | lead dinitrate                            |
| 7803-55-6  | ammonium trioxovanadate                   |
| 543-81-7   | acetic acid beryllium salt                |
| 7789-02-8  | chromium (III) nitrate nonahydrate        |
| 7782-61-8  | iron (III) nitrate nonahydrate            |
| 10377-66-9   | manganese dinitrate                       |

| <b>TSCA (Toxic Substances Control Act):</b> |                         |
|---|-------------------------|
| 7697-37-2                                   | nitric acid             |
| 7664-39-3                                   | hydrogen fluoride       |
| 471-34-1                                    | calcium carbonate       |
| 7631-99-4                                   | sodium nitrate          |
| 7757-79-1                                   | potassium nitrate       |
| 3251-23-8                                   | copper dinitrate        |
| 1327-53-3                                   | diarsenic trioxide      |
| 7446-08-4                                   | selenium dioxide        |
| 10042-76-9                                  | strontium nitrate       |
| 1313-27-5                                   | molybdenum trioxide     |
| 10022-31-8                                  | barium nitrate          |
| 10102-45-1                                  | thallium nitrate        |
| 10099-74-8                                  | lead dinitrate          |
| 7803-55-6                                   | ammonium trioxovanadate |
| 10043-35-3                                  | boric acid              |
| 7440-69-9                                   | bismuth                 |
| 10377-66-9                                  | manganese dinitrate     |
| 7732-18-5                                   | water                   |

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## Safety Data Sheet

### acc. to OSHA HCS

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**Trade name: ICP Calibration Standard (125 mL)**

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**· Proposition 65**
**· Chemicals known to cause cancer:**

|            |   |
|------------|---|
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate |
| 1327-53-3  | diarsenic trioxide                        |
| 10022-68-1 | Nitric acid, cadmium salt, tetrahydrate   |
| 10099-74-8 | lead dinitrate                            |
| 543-81-7   | acetic acid beryllium salt                |

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

|            |   |
|------------|---|
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate |
|------------|---|

**· Chemicals known to cause developmental toxicity:**

|            |   |
|------------|---|
| 13478-00-7 | Nitric acid, nickel(2+) salt, hexahydrate |
| 1327-53-3  | diarsenic trioxide                        |

**· Carcinogenic categories**
**· EPA (Environmental Protection Agency)**

|            |                     |                       |
|------------|---------------------|-----------------------|
| 1327-53-3  | diarsenic trioxide  | A                     |
| 7446-08-4  | selenium dioxide    | D                     |
| 10022-31-8 | barium nitrate      | D, CBD(inh), NL(oral) |
| 10102-45-1 | thallium nitrate    | II                    |
| 10099-74-8 | lead dinitrate      | B2                    |
| 10043-35-3 | boric acid          | I (oral)              |
| 10377-66-9 | manganese dinitrate | D                     |

**· TLV (Threshold Limit Value established by ACGIH)**

|            |                    |    |
|------------|--------------------|----|
| 1327-53-3  | diarsenic trioxide | A1 |
| 10022-31-8 | barium nitrate     | A4 |
| 10099-74-8 | lead dinitrate     | A3 |
| 10043-35-3 | boric acid         | A4 |

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

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:** Document Control / Regulatory

**· Contact:** regulatory@ultrasci.com

**· Date of preparation / last revision** 03/29/2019 / 2

**· 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

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**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 03/29/2019

Version Number 3

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**Trade name: ICP Calibration Standard (125 mL)**

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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)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
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  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· \* **Data compared to the previous version altered.**

US