

Safety data sheet
according to NOHSC 2003

Printing date 22.05.2015

Revision: 22.05.2015

Hazardous according to criteria of Australian Safety and Compensation Council

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

- English additional compounds
- Product identifier
- Product Name: Multi-element Calibration Standard I, Part Number 8500-6944
- Part Number: 8500-6944
- 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
Muggrave
Victoria 3170, Australia
- Further information obtainable from: product safety department
- Emergency telephone number: CHEMTREC®: +(61) - 290372994

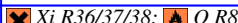

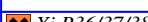
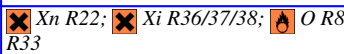
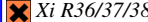
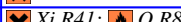
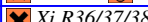
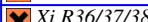
2 Composition/information on ingredients

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

· **Dangerous components:**

7697-37-2	nitric acid		5.0%
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· **CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION**

7429-91-6	Dysprosium from Didysprosium trioxide		0.001%
7439-91-0	Lanthanum from Lanthanum(III) nitrate hexahydrate		0.001%
7439-94-3	Lutetium from Lutetium (III) Oxide		0.001%
7440-00-8	Neodymium from Neodymium Oxide		0.001%
7440-10-0	Praseodymium from Praseodymium(III,IV) oxide		0.001%
7440-19-9	Samarium from Samarium (III) oxide		0.001%
7440-20-2	Scandium from Scandium oxide		0.001%
7440-27-9	Terbium from Terbium (III,IV) oxide		0.001%
7440-29-1	Thorium from Thorium nitrate hydrate		0.001%
7440-30-4	Thulium from Thulium oxide		0.001%
7440-45-1	Cerium from Cerium(III) nitrate hexahydrate		0.001%
7440-52-0	Erbium from Erbium(III) oxide		0.001%
7440-53-1	Europium from Europium(III) oxide		0.001%
7440-54-2	Gadolinium from Digadolinium trioxide		0.001%
7440-60-0	Holmium from Holmium oxide		0.001%
7440-64-4	Ytterbium from Ytterbium (III) oxide		0.001%
7440-65-5	Yttrium from Yttrium oxide		0.001%
7732-18-5	water, distilled, conductivity or of similar purity		94.983%

- Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- Classification of the substance or mixture
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



C; Corrosive

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R34: Causes burns.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:** The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



C Corrosive

· **Hazard-determining components of labelling:**

nitric acid

· **Risk phrases:**

34 Causes burns.

· **Information concerning particular hazards for human and environment:**

· **Safety phrases:**

1/2 Keep locked up and out of the reach of children.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

56 Dispose of this material and its container to hazardous or special waste collection point.

4 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.

5 Firefighting measures

· **Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** 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.

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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.
- **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.

- **Ingredients with limit values that require monitoring at the workplace:**

7697-37-2 nitric acid

NES	Short-term value: 10 mg/m ³ , 4 ppm
	Long-term value: 5.2 mg/m ³ , 2 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **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

- **General Information**

- **Appearance:**

Form:	Liquid
Colour:	Colourless

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· Odour:	<i>Odourless</i>
· Odour threshold:	<i>Not applicable.</i>
· pH-value:	<i><1</i>
· Change in condition	
Melting point/Melting range:	<i>0 °C (32°F)</i>
Boiling point/Boiling range:	<i>100 °C (212°F)</i>
· Flash point:	<i>Not applicable.</i>
· Flammability (solid, gaseous):	<i>Not applicable.</i>
· Ignition temperature:	
Decomposition temperature:	<i>Not applicable.</i>
· Self-igniting:	<i>Product is not selfigniting.</i>
· Danger of explosion:	<i>Product does not present an explosion hazard.</i>
· Explosion limits:	
Lower:	<i>Not applicable.</i>
Upper:	<i>Not applicable.</i>
· Vapour pressure at 20 °C:	<i>23 hPa</i>
· Density:	<i>1.0 g/mL @ 20 °C</i>
· Relative density	<i>Not applicable.</i>
· Vapour density	<i>Not applicable.</i>
· Evaporation rate	<i>Not applicable.</i>
· Solubility in / Miscibility with water:	<i>Miscible</i>
· Partition coefficient (n-octanol/water):	<i>Not applicable.</i>
· Viscosity:	
Dynamic:	<i>Not applicable.</i>
Kinematic:	<i>Not applicable.</i>
· Solvent content:	
Organic solvents:	<i>0.0 %</i>
Water:	<i>95.0 %</i>
VOC (EC)	<i>0.00 %</i>
· Other information	<i>No further relevant information available.</i>

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *Caustic effect on skin and mucous membranes.*
- **on the eye:** *Strong caustic effect.*
- **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.*

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12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 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.

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 · IMDG, IATA	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) · ADG, IMDG, IATA	
	
· Class · Label	8 Corrosive substances. 8
· Packing group · ADG, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups	Warning: Corrosive substances. 80 F-A,S-B Acids
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG · 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

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· Transport category	3
· Tunnel restriction code	E
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· IMDG	1L
· Limited quantities (LQ)	Code: E2
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

15 Regulatory information

· Australian Inventory of Chemical Substances		
7697-37-2	nitric acid	
7429-91-6	Dysprosium from Didysprosium trioxide	
7439-91-0	Lanthanum from Lanthanum(III) nitrate hexahydrate	
7439-94-3	Lutetium from Lutetium (III) Oxide	
7440-00-8	Neodymium from Neodymium Oxide	
7440-10-0	Praseodymium from Praseodymium(III,IV) oxide	
7440-19-9	Samarium from Samarium (III) oxide	
7440-20-2	Scandium from Scandium oxide	
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7440-45-1	Cerium from Cerium(III) nitrate hexahydrate	
7440-52-0	Erbium from Erbium(III) oxide	
7440-53-1	Europium from Europium(III) oxide	
7440-54-2	Gadolinium from Digadolinium trioxide	
7440-60-0	Holmium from Holmium oxide	
· Standard for the Uniform Scheduling of Medicines and Poisons		
7697-37-2	nitric acid	S5, S6
7439-91-0	Lanthanum from Lanthanum(III) nitrate hexahydrate	S4

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



C Corrosive

· **Hazard-determining components of labelling:**
nitric acid

· **Risk phrases:**
34 Causes burns.

· **Safety phrases:**
1/2 Keep locked up and out of the reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
56 Dispose of this material and its container to hazardous or special waste collection point.

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.

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· **Relevant phrases**

R35 Causes severe burns.

R8 Contact with combustible material may cause fire.

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

· **Contact:**

Agilent Technologies Australia Pty Ltd

1800 802 402

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