

Safety Data Sheet according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

1 Identification of the hazardous chemical and of the supplier

- **Product identifier**
- **Trade name:** ICP-MS internal Std Mix
- **Part number:** 5188-6525
- **Recommended use of the chemical and restrictions on use**
Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
- **Further information obtainable from:**
Telephone: 0800 603 1000
pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: +(60) 3-9212 5794

2 Hazard identification

- **Classification of the substance or mixture**



GHS05 corrosion

- Met. Corr. 1 H290 May be corrosive to metals.
- Skin Corr. 1A 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**



GHS05

- **Signal word** Danger

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

nitric acid

- **Hazard statements**

- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.

- **Precautionary statements**

- P260 Do not breathe dusts or mists.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P234 Keep only in original container.
- P264 Wash thoroughly after handling.
- P310 Immediately call a POISON CENTER/doctor.
- P321 Specific treatment (see on this label).

(Contd. on page 2)

-MY

Safety Data Sheet

according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 1)



- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
- P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P390 Absorb spillage to prevent material damage.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 Store locked up.
- P406 Store in corrosive resistant container with a resistant inner liner.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition and information of the ingredients of the hazardous chemical

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

- **Dangerous components:**

7697-37-2	nitric acid	 Ox. Liq. 2, H272;  Skin Corr. 1A, H314; Eye Dam. 1, H318	9.89%
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- **Additional information:** For the wording of the listed hazard 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 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)

-MY

Safety Data Sheet according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

(Contd. of page 2)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Mount respiratory protective device.
 - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
 - Dilute with plenty of water.
 - 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 section 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:** Keep respiratory protective device available.
- **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 and personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.

- **Control parameters**

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

7697-37-2 nitric acid

PEL (Malaysia) Long-term value: 5.2 mg/m ³ , 2 ppm

- **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.

(Contd. on page 4)

-MY-

Safety Data Sheet

according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 3)

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

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 11-13mil thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

· **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: > 4 hours

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Light orange colour
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point	Undetermined.
Initial boiling point and boiling range	83 °C

· **Flash point:** Not applicable.

· **Flammability** Not applicable.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

(Contd. on page 5)

MY

Safety Data Sheet

according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 4)

· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	90.0 %
VOC (EC)	0.00 %
Solids content:	0.1 %
· 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**

· LD/LC50 values relevant for classification:
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7697-37-2 nitric acid

Inhalative	LC50/4 h	67 mg/L (rat)
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- **Primary irritant effect:**
- **Skin corrosion or irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage or eye irritation**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Respiratory / skin sensitization** No sensitising effects known.

(Contd. on page 6)

MY

Safety Data Sheet

according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 5)

· 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

Irritant

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 course 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 information

· 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.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transportation information

· UN-Number

· ADR, IMDG, IATA

UN2031

· UN proper shipping name

· ADR

· IMDG, IATA

2031 NITRIC ACID solution

NITRIC ACID solution

(Contd. on page 7)

Safety Data Sheet

according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 6)

· Transport hazard class(es)

· ADR, IMDG, IATA



· Class

8 Corrosive substances.

· Label

8

· Packing group

· ADR, IMDG, IATA

II

· Environmental hazards:

Not applicable.

· Special precautions for user

Warning: Corrosive substances.

· Hazard identification number (Kemler code):

80

· Segregation groups

(SGG1) Acids

· Stowage Category

D

· Segregation Code

SG6 Segregation as for class 5.1

SG16 Stow "separated from" class 4.1

SG17 Stow "separated from" class 5.1

SG19 Stow "separated from" class 7

SG36 Stow "separated from" SGG18-alkalis.

SG49 Stow "separated from" SGG6-cyanides

· Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ)

1L

· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· Transport category

2

· Tunnel restriction code

E

· IMDG

· Limited quantities (LQ)

1L

· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· UN "Model Regulation":

UN 2031 NITRIC ACID SOLUTION, 8, II

15 Regulatory information

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

· EHS reference list

7697-37-2 | nitric acid

(Contd. on page 8)

-MY-

Safety Data Sheet according to P.U.(A) 310/2013

Printing date 27.08.2025

Revision: 27.08.2025

Trade name: ICP-MS internal Std Mix

(Contd. of page 7)

- **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

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.

- **Contact:**
- **Abbreviations and acronyms:**
 - ADR: Accord relatif au transport international 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Ox. Liq. 2: Oxidizing liquids – Category 2
 - Met. Corr. 1: Corrosive to metals – Category 1
 - Skin Corr. 1A: Skin corrosion or irritation – Category 1A
 - Eye Dam. 1: Serious eye damage or eye irritation – Category 1
- *** Data compared to the previous version altered.**

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