

# SAFETY DATA SHEET

Tuning Sample T1 for ICP-MS Agilent Part Number G1820-60491

## 1. Identification of the substance/preparation and company/undertaking

### Identification of the substance or preparation

**Product name** : Tuning Sample T1 for ICP-MS Agilent Part Number G1820-60491  
**Part No.** : G1820-60491

### Company/undertaking identification

**Manufacturer / Supplier** : Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany

**Emergency telephone number** : Contact your local Poison Center

## 2. Composition/information on ingredients

**Substance/preparation** : Preparation

Ingredient name	CAS number	%	EC number	Classification
Water	7732-18-5	99	231-791-2	Not classified.
Nitric acid	7697-37-2	1	231-714-2	C; R34
thallium	7440-28-0	0.000001	231-138-1	T+; R26/28 R33 R53
cerium	7440-45-1	0.000001	231-154-9	Not classified.
Yttrium	7440-65-5	0.000001	231-174-8	Not classified.
cobalt	7440-48-4	0.000001	231-158-0	R42/43 R53
Lithium	7439-93-2	0.000001	231-102-5	F; R14/15 C; R34
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

**Use of the substance/preparation** : Analytical reagent.  
1 L

## 3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : Xi; R36/38

**Human health hazards** : Irritating to eyes and skin.

See section 11 for more detailed information on health effects and symptoms.

## 4. First-aid measures

### First-aid measures

**Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if adverse health effects persist or are severe.

**Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.

**Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if adverse health effects persist or are severe.

**Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.

See section 11 for more detailed information on health effects and symptoms.

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## 5. Fire-fighting measures

### Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Special exposure hazards - Explosibility** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

- Personal precautions** : Avoid contact with eyes, skin and clothing.
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dyke spilt material or otherwise contain it to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

## 7. Handling and storage

- Handling** : Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.
- Packaging materials**
- Recommended** : Use original container.

## 8. Exposure controls/personal protection

### Ingredient name

Nitric acid

### Occupational exposure limits

#### **ACGIH TLV (United States, 1/2004).**

STEL: 10 mg/m<sup>3</sup> 15 minute/minutes. Form: All forms  
 STEL: 4 ppm 15 minute/minutes. Form: All forms  
 TWA: 5.2 mg/m<sup>3</sup> 8 hour/hours. Form: All forms  
 TWA: 2 ppm 8 hour/hours. Form: All forms

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

### Exposure controls

- Occupational exposure controls** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

### General information

#### Appearance

- Physical state** : Liquid.
- Colour** : Clear. Colourless.

### Important health, safety and environmental information

- pH** : <1 [Acidic.]
- Boiling point** : The lowest known value is 83.89°C (183°F) (Nitric acid). Weighted average: 99.84°C (211.7°F)
- Melting point** : May start to solidify at 0°C (32°F) based on data for: Water. Weighted average: -0.41°C (31.3°F)
- Flash point** : Not applicable.
- Relative density** : 1.0004 (Water = 1)
- Solubility** : Soluble in cold water, hot water.

## 10. Stability and reactivity

- Stability** : The product is stable.

## 11. Toxicological information

### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Irritating to skin.
- Eye contact** : Irritating to eyes.

### Acute toxicity

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Nitric acid	LDLo	430 mg/kg	Oral	human

### Potential chronic health effects

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.
- Target organs** : Contains material which causes damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eye, lens or cornea, teeth.

## 12. Ecological information

**Other adverse effects** : No known significant effects or critical hazards.





## 13. Disposal considerations

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

## 14. Transport information

### International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
<b>ADR/RID Class</b>	3264	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)	8	III		-
<b>ADNR Class</b>	3264	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)	8	III		-
<b>IMDG Class</b>	3264	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)	8	III		-
<b>IATA Class</b>	3264	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)	8	III		<p><b>Quantity limitation - Passenger aircraft</b> 5 L</p> <p><b>Quantity limitation - Cargo aircraft</b> 60 L</p> <p><b>Packaging instruction</b> 818 820</p> <p><b>Remarks</b> Requires Shipper's Declaration of Dangerous Goods</p>

PG\* : Packing group

## 15. Regulatory information

### EU regulations

- Hazard symbol/symbols** : Irritant
- Risk phrases** : R36/38- Irritating to eyes and skin.
- Product use** : Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.  
- Industrial applications.

## 16. Other information

- Full text of R-phrases referred to in sections 2 and 3 - Europe** : R34- Causes burns.  
R36/38- Irritating to eyes and skin.
- Full text of classifications referred to in sections 2 and 3 - Europe** : C - Corrosive  
Xi - Irritant

## 16. Other information

### History

Date of printing : 3/29/2007.  
Date of issue : 3/29/2007.  
Date of previous issue : No previous validation.  
Version : 0.01

### Notice to reader

**DISCLAIMER:** *This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing the suitability of the Product for a particular application.*

▣ Indicates information that has changed from previously issued version.