

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Page 1/8

Version number 1

Printing date 28.11.2022

Revision: 28.11.2022

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

· **1.1 Product identifier**

· **Trade name:** ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO<sub>3</sub> 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)

· **Registration number**

A registration number is not available for this substance as the substance or its uses are exempted for registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the mixture** Laboratory Reagent

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

· PureSynth Research Chemicals GmbH

· 64683 Einhausen Marie-Curie-StraBe. 3, Germany

· **Further information obtainable from:** Product safety department

· **1.4 Emergency telephone number:** 1800-8908-260

**SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07

· **Signal word** Warning



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 2)

- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 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:** None.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

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

7697-37-2 nitric acid

IOELV | Short-term value: 2.6 mg/m<sup>3</sup>, 1 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**  
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/face protection** Goggles recommended during refilling

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** According to product specification

(Contd. on page 4)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 3)

· <b>Odour:</b>	<i>Characteristic</i>
· <b>Odour threshold:</b>	<i>Not determined.</i>
· <b>Melting point/freezing point:</b>	<i>0 °C</i>
· <b>Boiling point or initial boiling point and boiling range</b>	<i>Undetermined.</i>
· <b>Flammability</b>	<i>Not applicable.</i>
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	<i>Not determined.</i>
· <b>Upper:</b>	<i>Not determined.</i>
· <b>Flash point:</b>	<i>Not applicable.</i>
· <b>Decomposition temperature:</b>	<i>Not determined.</i>
· <b>pH</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	<i>Not determined.</i>
· <b>Dynamic:</b>	<i>Not determined.</i>
· <b>Solubility</b>	
· <b>water:</b>	<i>Not miscible or difficult to mix.</i>
· <b>Partition coefficient n-octanol/water (log value)</b>	<i>Not determined.</i>
· <b>Vapour pressure at 20 °C:</b>	<i>23 hPa</i>
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	<i>1 g/cm<sup>3</sup></i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapour density</b>	<i>Not determined.</i>

### · 9.2 Other information

· <b>Appearance:</b>	
· <b>Form:</b>	<i>Fluid</i>
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Auto-ignition temperature:</b>	<i>Product is not selfigniting.</i>
· <b>Explosive properties:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Solvent content:</b>	
· <b>Solids content:</b>	<i>0.0 %</i>
· <b>Molecular weight</b>	<i>18.02 g/mol</i>
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	<i>Not determined.</i>

### · Information with regard to physical hazard classes

· <b>Explosives</b>	<i>Void</i>
· <b>Flammable gases</b>	<i>Void</i>
· <b>Aerosols</b>	<i>Void</i>
· <b>Oxidising gases</b>	<i>Void</i>
· <b>Gases under pressure</b>	<i>Void</i>
· <b>Flammable liquids</b>	<i>Void</i>
· <b>Flammable solids</b>	<i>Void</i>
· <b>Self-reactive substances and mixtures</b>	<i>Void</i>
· <b>Pyrophoric liquids</b>	<i>Void</i>
· <b>Pyrophoric solids</b>	<i>Void</i>
· <b>Self-heating substances and mixtures</b>	<i>Void</i>
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	<i>Void</i>
· <b>Oxidising liquids</b>	<i>Void</i>
· <b>Oxidising solids</b>	<i>Void</i>
· <b>Organic peroxides</b>	<i>Void</i>
· <b>Corrosive to metals</b>	<i>Void</i>

(Contd. on page 5)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 4)

· **Desensitised explosives**

Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **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.

EU

(Contd. on page 6)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 5)

### SECTION 13: Disposal considerations

- **13.1 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.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN number or ID number</b><br>· <b>ADR, IMDG, IATA</b>  | UN1760   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR</b><br>· <b>IMDG, IATA</b>  | 1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID)<br>CORROSIVE LIQUID, N.O.S. (NITRIC ACID)                                  |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, IMDG, IATA</b>  |                                      |
| · <b>Class</b><br>· <b>Label</b>  | 8 Corrosive substances.<br>8   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>   | III  |
| · <b>14.5 Environmental hazards:</b>  | Not applicable.  |
| · <b>14.6 Special precautions for user</b><br>· <b>Hazard identification number (Kemler code):</b><br>· <b>EMS Number:</b><br>· <b>Segregation groups</b><br>· <b>Stowage Category</b><br>· <b>Stowage Code</b> | Warning: Corrosive substances.<br>80<br>F-A,S-B<br>(SGG1) Acids<br>A<br>SW2 Clear of living quarters.                  |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>   | Not applicable.  |
| · <b>Transport/Additional information:</b>  |  |
| · <b>ADR</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>   | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · <b>Transport category</b><br>· <b>Tunnel restriction code</b>   | 3<br>E   |
| · <b>IMDG</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>  | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |

(Contd. on page 7)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 6)

· **UN "Model Regulation":** UN 1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID), 8, III

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.
- **Precautionary statements**  
P264 Wash thoroughly after handling.  
P280 Wear eye protection / face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P337+P313 If eye irritation persists: Get medical advice/attention.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 8)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2022

Version number 1

Revision: 28.11.2022

**Trade name: ICP-MS Stock Tuning Solution- 5 components: 10mg/l each of Li ; Y ; Ce ; Co ; Tl in HNO3 2%, CRM, ISO 17034 and ISO 17025 (PSR50219)**

(Contd. of page 7)

· **Relevant phrases**

- H272 May intensify fire; oxidiser.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- EUH071 Corrosive to the respiratory tract.

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

· **Contact:** Mrs. Taralova

· **Date of previous version:** 15.11.2022

· **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
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- 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)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 3: Oxidizing liquids – Category 3
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1A: Skin corrosion/irritation – Category 1A
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

EU