# Safety data sheet

**according to Regulation (EC) No 1907/2006, Article 31**

*Printing date 03.04.2025* *Version number 1* *Revision: 03.04.2025*

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

· **1.1 Product identifier**

· **Trade name: ICP-MS Tuning Solution - Tune B ICAP - 7 components; 1mg/l each in HNO3 2%, HCl 0.5% (161D.1.2N05C)**

· **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**

For Laboratory and R&D use only!

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

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

· **Manufacturer/Supplier:**

CPAchem Ltd.
2 Ivanka Terzieva Str.
Bogomilovo 6065
Stara Zagora, BULGARIA
info@cpachem.com
+359 42952901

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

· **1.4 Emergency telephone number:**

EMERGENCY HEALTH INFORMATION:
Austria +43 1 31304 5620, Belgium +32022649636, Bulgaria +359 2 9154 409, Croatia +38514686910, Cyprus +3572240561, Czech Republic +420267082257, Denmark +45 72 54 40 00, Estonia +3726943384, Finland +358 5052 000, France +33 3 85 21 92, Germany +49-30-18412-0, Greece +302106479250, Hungary +34 (1) 476 1136, Ireland +35318092566, Italy +390649906140, Latvia +371 67032600, Lithuania +370 70662008, Luxembourg +352 24785551, Netherland +31 88 75 585 61,
Norway +47 21 07 70 00, Poland +48 42 2530 400, Portugal +351 800250250, Romania +40213183606, Slovakia +421 2 5465 2307, Slovenia +38614006039, Spain +34 917689800, Sweden +46104566750, United Kingdom (England or Wales) 0845 46 47 or Scotland 08454 24 24 24 (UK only).

## SECTION 2: Hazards identification

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

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



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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**



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· **Signal word** Warning

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· ***Hazard statements***
*H315 Causes skin irritation.*
*H319 Causes serious eye irritation.*
· ***Precautionary statements***
*P264 Wash thoroughly after handling.*
*P280 Wear protective gloves / 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.*
· ***Additional information:***
*Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.*
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

## SECTION 3: Composition/information on ingredients

· ***3.2 Mixtures***
· ***Description:*** *Mixture: consisting of the following components.*

· ***Dangerous components:***

| | | |
|---|---|---|
| *CAS: 7697-37-2*<br>*EINECS: 231-714-2*<br>*Index number: 007-030-00-3*<br>*Reg.nr.: 01-2119487297-23* | *nitric acid*<br>*Ox. Liq. 3, H272; Acute Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318, EUH071*<br>*ATE: LC50/4 h inhalative: > 20 mg/l*<br>*Specific concentration limits: Skin Corr. 1A; H314: C ≥ 20 %*<br>*Skin Corr. 1B; H314: 5 % ≤ C < 20 %*<br>*Ox. Liq. 3; H272: C ≥ 65 %* | *2.0%* |

· ***Additional information:*** *For the wording of the listed hazard phrases refer to section 16.*

## SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***After inhalation:*** *Supply fresh air; consult doctor in case of complaints.*
· ***After skin contact:*** *Immediately wash with water and soap and rinse thoroughly.*
· ***After eye contact:*** *Rinse opened eye for several minutes under running water.*
· ***After swallowing:*** *If symptoms persist consult doctor.*
· ***4.2 Most important symptoms and effects, both acute and delayed***
*The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11*
· ***4.3 Indication of any immediate medical attention and special treatment needed***
*No further relevant information available.*

## SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *Use fire extinguishing methods suitable to surrounding conditions.*
· ***For safety reasons unsuitable extinguishing agents:***
*For this substance/mixture no limitations of extinguishing agents are given.*
· ***5.2 Special hazards arising from the substance or mixture*** *No further relevant information available.*

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· **5.3 Advice for firefighters**
· **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **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/m³, 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 section 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.

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· **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 |
| · **Odour:** | Characteristic |
| · **Odour threshold:** | Not determined. |
| · **Melting point/freezing point:** | Undetermined. |
| · **Boiling point or initial boiling point and boiling range** | Undetermined. |
| · **Flammability** | Not applicable. |
| · **Lower and upper explosion limit** | |
| · **Lower:** | Not determined. |
| · **Upper:** | Not determined. |
| · **Flash point:** | Not applicable. |
| · **Decomposition temperature:** | Not determined. |
| · **pH** | Not determined. |
| · **Viscosity:** | |
| · **Kinematic viscosity** | Not determined. |
| · **Dynamic:** | Not determined. |
| · **Solubility** | |
| · **water:** | Not miscible or difficult to mix. |
| · **Partition coefficient n-octanol/water (log value)** | Not determined. |
| · **Vapour pressure:** | Not determined. |
| · **Density and/or relative density** | |
| · **Density:** | Not determined. |
| · **Relative density** | Not determined. |
| · **Vapour density** | Not determined. |

| | |
|---|---|
| · **9.2 Other information** | |
| · **Appearance:** | |
| · **Form:** | Fluid |
| · **Important information on protection of health and environment, and on safety.** | |
| · **Ignition temperature:** | Product is not selfigniting. |
| · **Explosive properties:** | Product does not present an explosion hazard. |
| · **Solvent content:** | |
| · **Solids content:** | 2.8 % |
| · **Change in condition** | |
| · **Evaporation rate** | Not determined. |

| | |
|---|---|
| · **Information with regard to physical hazard classes** | |
| · **Explosives** | Void |
| · **Flammable gases** | Void |
| · **Aerosols** | Void |
| · **Oxidising gases** | Void |
| · **Gases under pressure** | Void |
| · **Flammable liquids** | Void |
| · **Flammable solids** | Void |
| · **Self-reactive substances and mixtures** | Void |
| · **Pyrophoric liquids** | Void |
| · **Pyrophoric solids** | Void |
| · **Self-heating substances and mixtures** | Void |

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| | |
|---|---|
| · **Substances and mixtures, which emit flammable gases in contact with water** | Void |
| · **Oxidising liquids** | Void |
| · **Oxidising solids** | Void |
| · **Organic peroxides** | Void |
| · **Corrosive to metals** | Void |
| · **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.
· **Primary irritant effect:**
· **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 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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*Danger to drinking water if even small quantities leak into the ground.*

## 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

| | |
|---|---|
| · **14.1 UN number or ID number** | |
| · **ADR, IMDG, IATA** | *UN1760* |
| · **14.2 UN proper shipping name** | |
| · **ADR** | *1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID, HYDROCHLORIC ACID)* |
| · **IMDG, IATA** | *CORROSIVE LIQUID, N.O.S. (NITRIC ACID, HYDROCHLORIC ACID)* |
| · **14.3 Transport hazard class(es)** | |
| · **ADR, IMDG, IATA** | |




| | |
|---|---|
| · **Class** | *8 Corrosive substances.* |
| · **Label** | *8* |
| · **14.4 Packing group** | |
| · **ADR, IMDG, IATA** | *III* |
| · **14.5 Environmental hazards:** | |
| · **Marine pollutant:** | *No* |
| · **14.6 Special precautions for user** | *Warning: Corrosive substances.* |
| · **Hazard identification number (Kemler code):** | *80* |
| · **EMS Number:** | *F-A,S-B* |
| · **Segregation groups** | *(SGG1) Acids* |
| · **Stowage Category** | *A* |
| · **Stowage Code** | *SW2 Clear of living quarters.* |
| · **14.7 Maritime transport in bulk according to IMO instruments** | *Not applicable.* |
| · **Transport/Additional information:** | |
| · **ADR** | |
| · **Limited quantities (LQ)** | *5L* |
| · **Excepted quantities (EQ)** | *Code: E1*<br>*Maximum net quantity per inner packaging: 30 ml*<br>*Maximum net quantity per outer packaging: 1000 ml* |
| · **Transport category** | *3* |
| · **Tunnel restriction code** | *E* |

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| | |
|---|---|
| · ***IMDG*** | |
| · ***Limited quantities (LQ)*** | *5L* |
| · ***Excepted quantities (EQ)*** | *Code: E1*<br>*Maximum net quantity per inner packaging: 30 ml*<br>*Maximum net quantity per outer packaging: 1000 ml* |
| · ***UN "Model Regulation":*** | *UN 1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID, HYDROCHLORIC 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 protective gloves / 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.*

· ***LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)***
*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***

| | | |
|---|---|---|
| *7647-01-0* | *hydrochloric acid* | *3* |

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

| | | |
|---|---|---|
| 7647-01-0 | hydrochloric acid | 3 |

· ***National regulations:***

· ***Other regulations, limitations and prohibitive regulations***

· ***Substances of very high concern (SVHC) according to REACH, Article 57***

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.*
*This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.*

· ***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:*** *03.04.2025*
· ***Abbreviations and acronyms:***
*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*
*ICAO: International Civil Aviation Organisation*
*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*
*SVHC: Substances of Very High Concern*
*vPvB: very Persistent and very Bioaccumulative*
*ATE: Acute toxicity estimate values*
*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*