## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902
date of compilation: 2016-12-22
Revision: 2022-03-17

Version: 2.0 en

Replaces version of: 2016-12-22
Version: (1)

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

### 1.1 Product identifier

Identification of the substance

Article number
Registration number (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid 0902
not relevant (mixture)
1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Uses advised against:
1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721-56 060 Telefax: +49 (0) 721-56 06149 e-mail: sicherheit@carlroth.de Website: www.carlroth.de

Competent person responsible for the safety data sheet:
e-mail (competent person):
1.4 Emergency telephone number

| Name | Street | Postal <br> code/city | Telephone | Website |
| :---: | :---: | :---: | :---: | :---: |
| National Poisons Information <br> Service <br> City Hospital | Dudley Rd | B187QH <br> Birmingham | 8448920111 |  |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Section | Hazard class | Cat- <br> egory | Hazard class and <br> category | Hazard <br> statement |
| :---: | :---: | :---: | :---: | :---: |
| 2.16 | Substance or mixture corrosive to metals | 1 | Met. Corr. 1 | H290 |
| 3.2 | Skin corrosion/irritation | 2 | Skin Irrit. 2 | H315 |
| 3.3 | Serious eye damage/eye irritation | 2 | Eye Irrit. 2 | H319 |

For full text of abbreviations: see SECTION 16

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)
Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)
Signal word Warning
Pictograms

GHSO5


Hazard statements
H290 May be corrosive to metals
H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary statements
Precautionary statements - prevention
P280
Wear protective gloves/protective clothing/eye protection/face protection
Hazardous ingredients for labelling: Nitric acid ...\% [C $\leq 70 \%$ ]

Labelling of packages where the contents do not exceed 125 ml
Signal word: Warning
Symbol(s)

contains:

### 2.3 Other hazards

## Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances <br> not relevant (mixture)

3.2 Mixtures

## Description of the mixture

| Name of substance | Identifier | Wt\% | Classification acc. to GHS | Pictograms | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nitric acid ... $\%$ [C $\leq 70$ \%] | $\begin{gathered} \text { CAS No } \\ \text { 7697-37-2 } \\ \text { EC No } \\ 231-714-2 \\ \text { Index No } \\ 007-030-00-3 \end{gathered}$ | 1 | Ox. Liq. 3 / H272 <br> Met. Corr. 1 / H290 <br> Acute Tox. 3 / H331 <br> Skin Corr. 1A / H314 <br> Eye Dam. 1 / H318 <br> EUH071 |  | $\begin{aligned} & \mathrm{B}(\mathrm{a}) \\ & \text { GHS-HC } \\ & \text { IOELV } \end{aligned}$ |

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

## Notes

B(a):
GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/ 2008/EC, Annex VI)
IOELV: Substance with a community indicative occupational exposure limit value

| Name of substance | Identifier | Specific Conc. Limits | M-Factors | ATE | Exposure route |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Nitric acid ... } \%[\mathrm{C} \\ \leq 70 \%] \end{gathered}$ | $\begin{gathered} \text { CAS No } \\ 7697-37-2 \\ \text { EC No } \\ 231-714-2 \\ \text { Index No } \\ 007-030-00-3 \end{gathered}$ | Ox. Liq. 3; H272: C $\geq 65$ \% <br> Skin Corr. 1A; H314: C $\geq 20$ \% <br> Skin Corr. 1B; H314: 5 \% $\leq$ C $20 \%$ | - | 2,65 mg//4h | inhalation: vapour |

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



## General notes

Take off contaminated clothing.
Following inhalation
Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Following skin contact
Rinse skin with water/shower. In case of skin irritation, consult a physician.
Following eye contact
Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

## Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

Irritation

### 4.3 Indication of any immediate medical attention and special treatment needed

 none
## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

Suitable extinguishing media
co-ordinate firefighting measures to the fire surroundings
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide $\left(\mathrm{CO}_{2}\right)$
Unsuitable extinguishing media
water jet
5.2 Special hazards arising from the substance or mixture

Non-combustible.
Hazardous combustion products
In case of fire may be liberated: Nitrogen oxides (NOx)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures


For non-emergency personnel
Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.
6.2 Environmental precautions

Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.
6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill
Covering of drains.
Advice on how to clean up a spill
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures are necessary.
Advice on general occupational hygiene
Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.
7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

## Incompatible substances or mixtures

Observe hints for combined storage.
Consideration of other advice:
Specific designs for storage rooms or vessels
Recommended storage temperature: $15-25^{\circ} \mathrm{C}$
7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

National limit values
Occupational exposure limit values (Workplace Exposure Limits)

| $\begin{gathered} \text { Cou } \\ \text { ntr } \\ \text { y } \end{gathered}$ | Name of agent | CAS No | Identifier | $\begin{gathered} \text { TW } \\ \text { A } \\ \text { [pp } \\ \text { m] } \end{gathered}$ | TWA [mg/ $\mathrm{m}^{3}$ ] | $\begin{aligned} & \text { STE } \\ & \text { L } \\ & \text { [pp } \\ & \mathrm{m}] \end{aligned}$ | STEL [mg/ $\left.\mathrm{m}^{3}\right]$ | Ceil ingC [pp | Ceil- <br> ing-C <br> [mg/ <br> $\mathrm{m}^{3}$ ] | Notation | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EU | nitric acid | $\begin{gathered} 7697-37- \\ 2 \end{gathered}$ | IOELV |  |  | 1 | 2,6 |  |  |  | $\begin{gathered} 2006 / 15 / \\ \text { EC } \end{gathered}$ |
| GB | cobalt | $\begin{gathered} 7440-48- \\ 4 \end{gathered}$ | WEL |  | 0,1 |  |  |  |  |  | $\begin{aligned} & \text { EH4O/ } \\ & 2005 \end{aligned}$ |
| GB | indium | $\begin{gathered} 7440-74- \\ 6 \end{gathered}$ | WEL |  | 0,1 |  | 0,3 |  |  |  | $\begin{gathered} \text { EH40/ } \\ 2005 \end{gathered}$ |
| GB | nitric acid | $\begin{gathered} 7697-37- \\ 2 \end{gathered}$ | WEL |  |  | 1 | 2,6 |  |  |  | $\begin{gathered} \text { EH40/ } \\ 2005 \end{gathered}$ |

Notation
Ceiling-C Ceiling value is a limit value above which exposure should not occur
STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15minute period (unless otherwise specified)
Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

### 8.2 Exposure controls

Individual protection measures (personal protective equipment)

## Eye/face protection



Use safety goggle with side protection.
Skin protection
 article number: 0902

## - hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374 . For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at $22^{\circ} \mathrm{C}$ and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

- type of material

NBR (Nitrile rubber)

- material thickness
$>0,11 \mathrm{~mm}$
- breakthrough times of the glove material
>480 minutes (permeation: level 6)
- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.
Respiratory protection


Respiratory protection necessary at: Aerosol or mist formation.
Environmental exposure controls
Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
Colour
Odour
Melting point/freezing point
Boiling point or initial boiling point and boiling range

Flammability
Lower and upper explosion limit
Flash point
Auto-ignition temperature
Decomposition temperature
pH (value)
Kinematic viscosity
liquid
colourless
characteristic
$\sim 0^{\circ} \mathrm{C}$
$\sim 100^{\circ} \mathrm{C}$ at 1.013 hPa
non-combustible
not determined
not determined
not determined
not relevant
$<2$
not determined

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)
Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

| Solubility(ies) <br> Water solubility | miscible in any proportion |
| :--- | :--- |
| Partition coefficient |  |
| Partition coefficient n-octanol/water (log value): | not relevant (inorganic) |
| Vapour pressure | not determined |
| Density and/or relative density |  |
| Density <br> Relative vapour density | $\sim 1 \mathrm{~g} / \mathrm{cm}^{3}$ at $20^{\circ} \mathrm{C}$ |
| information on this property is not available |  |
| Particle characteristics | not relevant (liquid) |
| Other safety parameters <br> Oxidising properties <br> Other information <br> Information with regard to physical hazard <br> classes: <br> Corrosive to metals <br> Other safety characteristics: <br> Miscibility |  |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Substance or mixture corrosive to metals.
10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Ammonia (NH3), Bases, Metals, Reducing agents, Strong alkali, Organic solvents

### 10.4 Conditions to avoid

Keep away from heat.
10.5 Incompatible materials
different metals (due to the release of hydrogen in an acid/alkaline medium)

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5 .

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.
Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).
Classification according to GHS (1272/2008/EC, CLP)
Acute toxicity
Shall not be classified as acutely toxic.
Acute toxicity estimate (ATE) of components of the mixture

| Name of substance | CAS No | Exposure route | ATE |
| :---: | :---: | :---: | :---: |
| Nitric acid $\ldots \%[C \leq 70 \%]$ | $7697-37-2$ | inhalation: vapour | $2,65 \mathrm{mg} / / 4 \mathrm{~h}$ |

## Acute toxicity of components of the mixture

| Name of substance | CAS No | Exposure <br> route | Endpoint | Value | Species |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nitric acid ...\% [C $\leq 70 \%]$ | $7697-37-2$ | inhalation: va- <br> pour | LC50 | $>2,65 \mathrm{mg} / / 4 \mathrm{~h}$ | rat |

## Skin corrosion/irritation

Causes skin irritation.
Serious eye damage/eye irritation
Causes serious eye irritation.

## Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.
Germ cell mutagenicity
Shall not be classified as germ cell mutagenic.

## Carcinogenicity

Shall not be classified as carcinogenic.

## Reproductive toxicity

Shall not be classified as a reproductive toxicant.
Specific target organ toxicity - single exposure
Shall not be classified as a specific target organ toxicant (single exposure).
Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).

## Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

- If swallowed


## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)
Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

Data are not available.

- If in eyes

Causes serious eye irritation

- If inhaled

Data are not available.

- If on skin
causes skin irritation
- Other information

This information is based upon the present state of our knowledge.

### 11.2 Endocrine disrupting properties

None of the ingredients are listed.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

## Biodegradation

The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.2 Process of degradability

Data are not available.
12.3 Bioaccumulative potential Data are not available.
12.4 Mobility in soil

Data are not available.
12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid article number: 0902

## Sewage disposal-relevant information

Do not empty into drains.

## Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

14.1 UN number or ID number
ADRRID UN 3264

IMDG-Code UN 3264
ICAO-TI
UN 3264
14.2 UN proper shipping name

ADRRID
IMDG-Code
ICAO-TI
Technical name (hazardous ingredients)
14.3 Transport hazard class(es)

ADRRID
8
IMDG-Code 8
ICAO-TI 8
14.4 Packing group

ADRRID III

IMDG-Code III
ICAO-TI
14.5 Environmental hazards III
non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.
14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.
14.8 Information for each of the UN Model Regulations article number: 0902

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Proper shipping name
Particulars in the transport document

Classification code
Danger label(s)


Special provisions (SP) 274
Excepted quantities (EQ) E1
Limited quantities (LQ) 5 L
Transport category (TC) 3
Tunnel restriction code (TRC) E
Hazard identification No 80
Emergency Action Code 2X
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information

Classification code
8

Danger label(s) 8


Special provisions (SP) 274
Excepted quantities (EQ) E1
Limited quantities (LQ) 5L
Transport category (TC) 3
Hazard identification No 80
International Maritime Dangerous Goods Code (IMDG) - Additional information

| Proper shipping name | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. |
| :--- | :--- |
| Particulars in the shipper's declaration | UN3264, CORROSIVE LIQUI, ACIDIC, INORGAN- <br> IC, N.O.S., (Nitric acid ... $\%$ [C $\leq 70 \%]$, Cobalt <br> powder, solution), 8, III |
| Marine pollutant | - |
| Danger label(s) | 8 |
| Special provisions (SP) |  |
| Excepted quantities (EQ) | 223,274 |
| E1 |  |

## Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid

article number: 0902
Limited quantities (LQ) 5 L
EmS F-A, S-B

Stowage category A
Segregation group 1 -Acids
International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name
Particulars in the shipper's declaration

Danger label(s)

Special provisions (SP) A3

Excepted quantities (EQ) E1
Limited quantities (LQ)


## 8



Corrosive liquid, acidic, inorganic, n.o.s.
UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (Nitric acid ...\% [C $\leq 70 \%$ ], Cobalt powder, solution), 8 , III

ION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

## Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)

| Name of substance | Name acc. to inventory | CAS No | Restriction |
| :---: | :---: | :---: | :---: |
| B, 6 elements in 1\% nitric acid | this product meets the criteria for <br> classification in accordance with Reg- <br> ulation No 1272/2008/EC | R3 | 3 |
| Nitric acid ...\% [C $\leq 70 \%]$ | substances in tattoo inks and perman- <br> ent make-up | R75 | 75 |

## Legend

R3 1. Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,

2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:

- can be used as fuel in decorative oil lamps for supply to the general public, and
- present an aspiration hazard and are labelled with H304.

4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as
follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil

- or even sucking the wick of lamps - may lead to life-threatening lung damage";
(b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by

1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';
(c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.';

# Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid 

article number: 0902

## Legend

R75

1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such sub stances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
(a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category $1 \mathrm{~A}, 1 \mathrm{~B}$ or 2 , or germ cell mutagen category $1 \mathrm{~A}, 1 \mathrm{~B}$ or 2 , the substance is present in the mixture in a concentration equal to or greater than 0,00005 \% by weight;
(b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category $1 \mathrm{~A}, 1 \mathrm{~B}$ or 2 , the substance is present in the mixture in a concentration equal to or greater than $0,001 \%$ by weight;
(c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser cat egory $1,1 \mathrm{~A}$ or 1 B , the substance is present in the mixture in a concentration equal to or greater than $0,001 \%$ by weight;
(d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1,1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2 , the substance is present in the mixture in a concentration equal to or greater than:
(i) $0,1 \%$ by weight, if the substance is used solely as a pH regulator;
(ii) 0,01 \% by weight, in all other cases;
(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 \% by weight;
(f) in the case of a substance for which a condition of one or more of the following kinds is specified in column $g$ (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 \% by weight:
(i) "Rinse-off products";
(ii) "Not to be used in products applied on mucous membranes";
(iii) "Not to be used in eye products";
$(\mathrm{g})$ in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column; (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points $(\mathrm{a})$ to $(\mathrm{g})$ of paragraph 1 , the concentration limit laid down in point $(\mathrm{h})$ of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
(a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
(b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
(a) the statement "Mixture for use in tattoos or permanent make-up";
(b) a reference number to uniquely identify the batch;
(c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
(d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
(g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.
The information shall be clearly visible, easily legible and marked in a way that is indelible.
The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.
Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.

Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid
article number: 0902

## Legend

9. This entry does not apply to substances that are gases at temperature of $20^{\circ} \mathrm{C}$ and pressure of $101,3 \mathrm{kPa}$, or generate a vapour pressure of more than 300 kPa at temperature of $50^{\circ} \mathrm{C}$, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).
10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list
None of the ingredients are listed.

## Seveso Directive

## 2012/18/EU (Seveso III)

| No | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the ap- <br> plication of lower and upper-tier re- <br> quirements | Notes |
| :---: | :---: | :---: | :---: |
|  | not assigned |  |  |

Deco-Paint Directive

| VOC content | $0 \%$ <br> $09 / 1$ |
| :--- | :--- |

Industrial Emissions Directive (IED)

| VOC content | $0 \%$ |
| :--- | :--- |
| VOC content (Water content was discounted) | $0 \frac{9 / 1}{}$ |

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
none of the ingredients are listed

## Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed
Regulation on the marketing and use of explosives precursors
Explosives precursors which are subject to restrictions

| Name of substance | CAS No | Type of registration | Remarks | Limit <br> value <br> Upper <br> value for <br> the <br> pur- <br> pose of <br> onsing <br> under <br> Article <br> $5(3)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nitric acid $\ldots \%[C \leq 70 \%]$ | $7697-37-2$ | Annex I |  | $3 \% \mathrm{w} / \mathrm{w}$ | $10 \% \mathrm{w} / \mathrm{w}$ |

## Legend

annex I Substances which shall not be made available to members of the general public on their own, or in mixtures or substances including them, except if the concentration is equal to or lower than the limit values set out below

## Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid

article number: 0902

## Additional statements

If the product is passed on to third parties, in accordance with Article 7 "Notification of the supply chain" of Regulation EU 2019/1148, the information obligation is subject to the entire supply chain and all other provisions mentioned in Article 7 on restricted and regulated raw materials.

## Regulation on drug precursors

none of the ingredients are listed
Regulation on substances that deplete the ozone layer (ODS)
none of the ingredients are listed
Regulation concerning the export and import of hazardous chemicals (PIC)
none of the ingredients are listed

## Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

## Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
National inventories

| Country | Inventory | Status |
| :---: | :---: | :---: |
| AU | AICS | not all ingredients are listed |
| CA | DSL | not all ingredients are listed |
| CN | IECSC | not all ingredients are listed |
| EU | ECSI | all ingredients are listed |
| EU | REACH Reg. | not all ingredients are listed |
| JP | CSCL-ENCS | not all ingredients are listed |
| KR | INSQ | not all ingredients are listed |
| MX | NZIoC | not all ingredients are listed |
| NZ | PICCS | not all ingredients are listed |
| PH | CICR | not all ingredients are listed |
| TR | TCSI | not all ingredients are listed |
| TW | TSCA | all ingredients are listed |
| US |  | not all ingredients are listed |

## Legend

AICS Australian Inventory of Chemical Substances
CICR Chemical Inventory and Control Regulation
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL Domestic Substances List (DSL)
ECSI EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China
INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory
NZIOC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registered substances
TCSI Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

## Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid

article number: 0902

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

## Indication of changes (revised safety data sheet)

Alignment to regulation: Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU
Restructuring: section 9, section 14

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
| :---: | :---: | :---: | :---: |
| 2.1 |  | Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table) | yes |
| 2.1 | Remarks: <br> For full text of Hazard- and EU Hazard-statements: see SECTION 16. |  | yes |
| 2.2 |  | Pictograms: change in the listing (table) | yes |
| 2.2 |  | Precautionary statements - prevention: change in the listing (table) | yes |
| 2.2 | Precautionary statements - response |  | yes |
| 2.2 |  | Precautionary statements - response: change in the listing (table) | yes |
| 2.2 | Hazardous ingredients for labelling: Nitric acid | Hazardous ingredients for labelling: Nitric acid ...\% [C $\leq 70 \%$ ] | yes |
| 2.2 | contains: <br> Nitric acid | contains: <br> Nitric acid ...\% [C $\leq 70 \%$ ] | yes |
| 2.3 | Other hazards: <br> There is no additional information. | Other hazards | yes |
| 2.3 |  | Results of PBT and vPvB assessment: <br> This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | yes |

## Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
| :---: | :---: |
| $2006 / 15 /$ EC | Commission Directive establishing a second list of indicative occupational exposure limit values in imple- <br> mentation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC |
| Acute Tox. | Acute toxicity |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- <br> tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- <br> land Waterways) |
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- |
| ing the International Carriage of Dangerous Goods by Road) |  |

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

## Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid

article number: 0902

| Abbr. | Descriptions of used abbreviations |
| :---: | :---: |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005 | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| Eye Dam. | Seriously damaging to the eye |
| Eye Irrit. | Irritant to the eye |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na tions |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| ICAO-TI | Technical instructions for the safe transport of dangerous goods by air |
| IMDG | International Maritime Dangerous Goods Code |
| IMDG-Code | International Maritime Dangerous Goods Code |
| index No | The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation <br> (EC) No 1272/2008 |
| IOELV | Indicative occupational exposure limit value |
| LC50 | Lethal Concentration 50\%: the LC50 corresponds to the concentration of a tested substance causing $50 \%$ lethality during a specified time interval |
| Met. Corr. | Substance or mixture corrosive to metals |
| NLP | No-Longer Polymer |
| Ox. Liq. | Oxidising liquid |
| PBT | Persistent, Bioaccumulative and Toxic |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr. | Corrosive to skin |
| Skin Irrit. | Irritant to skin |
| STEL | Short-term exposure limit |
| SVHC | Substance of Very High Concern |
| TWA | Time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and very Bioaccumulative |

## Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)
Multi-Element ICP-MS Tuning Solution B B, 6 elements in 1\% nitric acid
article number: 0902

| Abbr. | Descriptions of used abbreviations |
| :---: | :---: |
| WEL | Workplace exposure limit |

## Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.
Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

## Classification procedure

Physical and chemical properties. The classification is based on tested mixture.
Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
| :---: | :---: |
| H272 | May intensify fire; oxidiser. |
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |

## Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

