

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Multi-Element ICP - Standard Solution CR-02 ROTI®Star 15 elements in 5 % HNO<sub>3</sub> - mg/l

article number: **1K39**  
Version: **GHS 2.0 en**  
Replaces version of: 2021-05-03  
Version: (GHS 1)

date of compilation: 2021-05-03  
Revision: 2022-10-17

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

#### 1.1 Product identifier

Identification of the substance **Multi-Element ICP - Standard Solution CR-02 ROTI®Star 15 elements in 5 % HNO<sub>3</sub> - mg/l**

Article number 1K39

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

Relevant identified uses: Laboratory chemical  
Laboratory and analytical use

Uses advised against: Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

#### 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 06 0  
**Telefax:** +49 (0) 721 - 56 06 149  
**e-mail:** sicherheit@carlroth.de  
**Website:** www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

**e-mail (competent person):** **sicherheit@carlroth.de**

#### 1.4 Emergency telephone number

| Name   | Street          | Postal code/city   | Telephone | Website |
|--|-----------------|--------------------|-----------|---------|
| NSW Poisons Information Centre<br>Childrens Hospital | Hawkesbury Road | 2145 Westmead, NSW | 131126    |         |

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class                             | Cat-egory | Hazard class and category | Hazard statement |
|---------|--|-----------|---------------------------|------------------|
| 2.16    | Substance or mixture corrosive to metals | 1         | Met. Corr. 1              | H290             |
| 3.2     | Skin corrosion/irritation                | 1         | Skin Corr. 1              | H314             |
| 3.3     | Serious eye damage/eye irritation        | 1         | Eye Dam. 1                | H318             |

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| Section | Hazard class       | Cat-egory | Hazard class and category | Hazard statement |
|---------|--------------------|-----------|---------------------------|------------------|
| 3.4S    | Skin sensitisation | 1         | Skin Sens. 1              | H317             |

### Supplemental hazard information

| Code   | Supplemental hazard information    |
|--------|------------------------------------|
| EUH071 | corrosive to the respiratory tract |

For full text of abbreviations: see SECTION 16

### The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

## 2.2 Label elements

### Labelling

#### Signal word

**Danger**

#### Pictograms

GHS05, GHS07



#### Hazard statements

H290 May be corrosive to metals  
H314 Causes severe skin burns and eye damage  
H317 May cause an allergic skin reaction

#### Precautionary statements

##### Precautionary statements - prevention

P260 Do not breathe dusts or mists  
P280 Wear eye protection/face protection

##### Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of soap and water  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P363 Wash contaminated clothing before reuse  
P390 Absorb spillage to prevent material damage

##### Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant

**Hazardous ingredients for labelling:** Nitric acid ...% [C ≤ 70 %]

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### 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

not relevant (mixture)

### 3.2 Mixtures

#### Description of the mixture

| Name of substance           | Identifier          | Wt%      | Classification acc. to GHS   | Pictograms | Notes |
|-----------------------------|---------------------|----------|--|------------|-------|
| Nitric acid ...% [C ≤ 70 %] | CAS No<br>7697-37-2 | 5 - < 10 | 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 |            | B(a)  |

#### Notes

B(a): The classification refers to an aqueous solution

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure. In case of skin reactions, consult a physician.

#### Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

#### Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Corrosion, Risk of blindness, Gastric perforation, Risk of serious damage to eyes, Allergic reactions

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



#### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>)

#### 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 (NO<sub>x</sub>)

### 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. Wear full chemical protective clothing.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures



#### For non-emergency personnel

Use personal protective equipment as required. 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.

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### 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

Use extractor hood (laboratory). Handle and open container with care. Clear contaminated areas thoroughly.

#### 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.

#### 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 °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)

| Country | Name of agent             | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [ppm] | Ceiling-C [mg/m <sup>3</sup> ] | Notation                 | Source |
|---------|---------------------------|------------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|--------------------------|--------|
| AU      | lead, inorganic compounds |            | WES        |           | 0.05                     |            |                           |                 |                                | Pb, df                   | WES    |
| AU      | zinc oxide                | 1314-13-2  | WES        |           | 5                        |            | 10                        |                 |                                | fume                     | WES    |
| AU      | zinc oxide                | 1314-13-2  | WES        |           | 10                       |            |                           |                 |                                | i, noAsb_less1 Sil, dust | WES    |
| AU      | titanium dioxide          | 13463-67-7 | WES        |           | 10                       |            |                           |                 |                                | i, noAsb_less1 Sil       | WES    |
| AU      | nickel                    | 7440-02-0  | WES        |           | 1                        |            |                           |                 |                                |                          | WES    |
| AU      | nickel                    | 7440-02-0  | WES        |           | 1                        |            |                           |                 |                                |                          | WES    |

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| Country | Name of agent | CAS No    | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [ppm] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source |
|---------|---------------|-----------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|--------|
| AU      | cadmium       | 7440-43-9 | WES        |           | 0.01                     |            |                           |                 |                                |          | WES    |
| AU      | nitric acid   | 7697-37-2 | WES        | 2         | 5.2                      | 4          | 10                        |                 |                                |          | WES    |

### Notation

|             |  |
|-------------|--|
| Powder      |  |
| Ceiling-C   | Ceiling value is a limit value above which exposure should not occur   |
| df          | As dust and fumes  |
| dust        | As dust  |
| fume        | As fume  |
| i           | Inhalable fraction   |
| noAsb_less1 | Contains no asbestos and less than 1% free crystalline silica  |
| Sil         |  |
| Pb          | Calculated as Pb (lead)  |
| STEL        | Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)                   |
| TWA         | 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. Wear face protection.

#### Skin protection



#### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. 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 ° 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 mm

#### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

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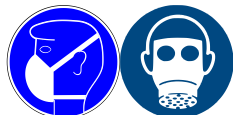
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### • other protection measures

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

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White).

### 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   | liquid  |
| Colour   | colourless - light yellow                     |
| Odour  | stinging                                      |
| Melting point/freezing point                             | 0 °C  |
| Boiling point or initial boiling point and boiling range | 100 °C (unknown)                              |
| Flammability   | non-combustible                               |
| Lower and upper explosion limit                          | not determined                                |
| Flash point  | not determined                                |
| Auto-ignition temperature                                | not determined                                |
| Decomposition temperature                                | not relevant                                  |
| pH (value)   | <2 (in aqueous solution: 50.6 g/l, 20 °C)     |
| Kinematic viscosity                                      | not determined                                |
| <u>Solubility(ies)</u>                                   |   |
| Water solubility   | miscible in any proportion                    |
| <u>Partition coefficient</u>                             |   |
| Partition coefficient n-octanol/water (log value):       | not relevant (inorganic)                      |
| Vapour pressure  | not determined                                |
| <u>Density and/or relative density</u>                   |   |
| Density  | ~ 1 g/cm <sup>3</sup> at 20 °C                |
| Relative vapour density                                  | information on this property is not available |

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Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes:

Corrosive to metals category 1: corrosive to metals

Other safety characteristics:

Miscibility completely miscible with water

## 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 (NH<sub>3</sub>), 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.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

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 acc. to GHS**

#### **Acute toxicity**

Shall not be classified as acutely toxic.



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| Acute toxicity estimate (ATE) of components of the mixture |           |                    |                           |
|--|-----------|--------------------|---------------------------|
| Name of substance  | CAS No    | Exposure route     | ATE                       |
| Nitric acid ...% [C ≤ 70 %]                                | 7697-37-2 | inhalation: vapour | >2.65 mg <sub>l</sub> /4h |

| Acute toxicity of components of the mixture |           |                    |          |                           |         |
|---|-----------|--------------------|----------|---------------------------|---------|
| Name of substance                           | CAS No    | Exposure route     | Endpoint | Value                     | Species |
| Nitric acid ...% [C ≤ 70 %]                 | 7697-37-2 | inhalation: vapour | LC50     | >2.65 mg <sub>l</sub> /4h | rat     |

### Skin corrosion/irritation

Causes severe skin burns and eye damage.

### Serious eye damage/eye irritation

Causes serious eye damage.

### Respiratory or skin sensitisation

May cause an allergic skin reaction.

### 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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

#### • If in eyes

causes burns, Causes serious eye damage, risk of blindness

#### • If inhaled

corrosive to the respiratory tract, cough, Dyspnoea

#### • If on skin

causes severe burns, causes poorly healing wounds, May produce an allergic reaction, pruritis, localised redness

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### • Other information

none

### 11.2 Endocrine disrupting properties

None of the ingredients are listed.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life.

### 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.

### Sewage disposal-relevant information

Do not empty into drains.

### Waste treatment of containers/packagings

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

### Relevant provisions relating to waste(Basel Convention)

### Properties of waste which render it hazardous

H8 Corrosives

### 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.

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### SECTION 14: Transport information

#### 14.1 UN number

|                |            |
|----------------|------------|
| <b>UN RTDG</b> | UN<br>2031 |
| IMDG-Code      | UN 2031    |
| ICAO-TI        | UN 2031    |

#### 14.2 UN proper shipping name

|                |             |
|----------------|-------------|
| <b>UN RTDG</b> | NITRIC ACID |
| IMDG-Code      | NITRIC ACID |
| ICAO-TI        | Nitric acid |

#### 14.3 Transport hazard class(es)

|                |   |
|----------------|---|
| <b>UN RTDG</b> | 8 |
| IMDG-Code      | 8 |
| ICAO-TI        | 8 |

#### 14.4 Packing group

|                |    |
|----------------|----|
| <b>UN RTDG</b> | II |
| IMDG-Code      | II |
| ICAO-TI        | II |

#### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

#### 14.6 Special precautions for user

There is no additional information.

#### 14.7 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

##### Transport information National regulations Additional information(UN RTDG)

|                        |      |
|------------------------|------|
| <b>UN number</b>       | 2031 |
| <b>Class</b>           | 8    |
| <b>Packing group</b>   | II   |
| <b>Danger label(s)</b> | 8    |



|                                 |               |
|---------------------------------|---------------|
| <b>Special provisions (SP)</b>  | -<br>UN RTDG  |
| <b>Excepted quantities (EQ)</b> | E2<br>UN RTDG |

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### Limited quantities (LQ)

1 L  
UN RTDG

### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name NITRIC ACID  
Particulars in the shipper's declaration UN2031, NITRIC ACID, 8, II  
Marine pollutant -  
Danger label(s) 8



Excepted quantities (EQ) E2  
Limited quantities (LQ) 1 L  
EmS F-A, S-B  
Stowage category D  
Segregation group 1 - Acids

### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name Nitric acid  
Particulars in the shipper's declaration UN2031, Nitric acid, 8, II  
Danger label(s) 8



Excepted quantities (EQ) E2  
Limited quantities (LQ) 0,5 L

## SECTION 15: Regulatory information

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

There is no additional information.

#### National regulations(Australia)

##### Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

#### 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.

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### National inventories

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

#### Legend

|            |   |
|------------|---|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| 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                               |
| ISHA-ENCS  | Inventory of Existing and New Chemical Substances (ISHA-ENCS)           |
| 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   |

## 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: Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Restructuring: section 9, section 14

| Section | Former entry (text/value)                                | Actual entry (text/value)   | Safety-relevant |
|---------|--|---|-----------------|
| 2.2     | Supplemental hazard information                          |   | yes             |
| 2.2     |  | Supplemental hazard information:<br>change in the listing (table)   | yes             |
| 2.2     | Hazardous ingredients for labelling:<br>Nitric acid ...% | Hazardous ingredients for labelling:<br>Nitric acid ...% [C ≤ 70 %] | yes             |

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### Abbreviations and acronyms

| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| Acute Tox.  | Acute toxicity  |
| ATE         | Acute Toxicity Estimate   |
| CAS         | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| Ceiling-C   | Ceiling value   |
| DGR         | Dangerous Goods Regulations (see IATA/DGR)  |
| 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 Nations   |
| 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   |
| 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   |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| STEL        | Short-term exposure limit   |
| TWA         | Time-weighted average   |
| UN RTDG     | UN Recommendations on the Transport of Dangerous Good   |
| vPvB        | Very Persistent and very Bioaccumulative  |
| WES         | Safe Work Australia: Workplace exposure standards for airborne contaminants   |

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



## Multi-Element ICP - Standard Solution CR-02 ROTI®Star 15 elements in 5 % HNO<sub>3</sub> - mg/l

article number: **1K39**

UN Recommendations on the Transport of Dangerous Good. 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. |
| H317 | May cause an allergic skin reaction.     |
| H318 | Causes serious eye damage.               |
| 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.