Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ ,  $CI^-$ ,  $Br^-$ ,  $NO_2^-$ ,  $NO_3^-$ ,  $PO_4^{3^-}$ ,  $SO_4^{2^-}$ ) 100 mg/l in water

#### article number: **22H9** Version: **GHS 1.0 en**

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

#### 1.1 Product identifier

Identification of the substance

Article number

**Anion Multi-Element** IC - Standard Solution ROTI®Star 7 anions ( $F^-$ ,  $CI^-$ ,  $Br^-$ ,  $NO_2^-$ ,  $NO_3^-$ ,  $PO_4^{3^-}$ ,  $SO_4^{2^-}$ ) 100 mg/l in water

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

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

Do not use for private purposes (household). Food, drink and animal feedingstuffs.

#### **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 :Department Health, Safety and Environment sheet:

#### e-mail (competent person):

#### sicherheit@carlroth.de

#### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 West- mead, NSW	131126	

## **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### **Classification acc. to GHS**

This mixture does not meet the criteria for classification.

#### 2.2 Label elements

#### Labelling

not required



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#### 2.3 Other hazards

## **Results of PBT and vPvB assessment** Does not contain a PBT-/vPvB-substance in a concentration of $\ge$ 0,1%.

#### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .

### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

not relevant (mixture)

3.2 Mixtures

#### Description of the mixture

This product does not meet the criteria for classification in any hazard class according to GHS

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures



#### **General notes**

No special measures are necessary.

#### **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.

#### Following eye contact

Rinse cautiously with water for several minutes.

#### **Following ingestion**

Rinse mouth. Call a doctor if you feel unwell.

- **4.2** Most important symptoms and effects, both acute and delayed Symptoms and effects are not known to date.
- **4.3 Indication of any immediate medical attention and special treatment needed** none



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## Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ , $CI^-$ , $Br^-$ , $NO_2^-$ , $NO_3^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ ) 100 mg/l in water

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## **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 (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

No special measures are necessary.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

#### 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

Wipe up with absorbent material (e.g. cloth, fleece).

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

#### 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.



#### Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions (F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, NO<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>) 100 mg/l in water

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## **SECTION 7: Handling and storage**

**Precautions for safe handling** 7.1

No special measures are necessary.

#### Advice on general occupational hygiene

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)**

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
AU	fluoride	16984- 48-8	WES		2.5					F	WES
AU	hydrogen fluoride	7664-39- 3	WES					3	2.6	F	WES
AU	fluorides, inorganic	7681-49- 4	WES		2.5					F	WES

Notation

Ceiling value is a limit value above which exposure should not occur Calculated as F (fluorine) Ceiling-C

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 TWA hours time-weighted average (unless otherwise specified)

#### 8.2 **Exposure controls**

#### Individual protection measures (personal protective equipment)

#### Eye/face protection





# Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ , $Cl^-$ , $Br^-$ , $NO_2^-$ , $NO_3^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ ) 100 mg/l in water

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Use safety goggle with side protection.

#### Skin protection



• hand protection Hand protection is not required.

Respiratory protection



Usually no personal respirative protection necessary.

#### **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
Odour	odourless
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C
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)	not determined
Kinematic viscosity	not determined
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
Vapour pressure	23 hPa at 20 °C

# Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^{-}$ , $CI^{-}$ , $Br^{-}$ , $NO_2^{-}$ , $NO_3^{-}$ , $PO_4^{3^{-}}$ , $SO_4^{2^{-}}$ ) 100 mg/l in water

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Density and/or relative density			
Density	1 <sup>g</sup> / <sub>cm³</sub> at 20 °C		
Relative vapour density	information on this property is not available		
Particle characteristics	not relevant (liquid)		
Other safety parameters			
Oxidising properties	none		
Other information			
Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant		
Other safety characteristics:			
Miscibility	completely miscible with water		
CTION 10: Stability and reactivity			

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

9.2

This material is not reactive under normal ambient conditions.

#### 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

No known hazardous reactions.

#### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

#### 10.5 Incompatible materials

There is no additional information.

### **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

This mixture does not meet the criteria for classification.

#### Acute toxicity

Shall not be classified as acutely toxic.



Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ ,  $CI^-$ ,  $Br^-$ ,  $NO_2^-$ ,  $NO_3^-$ ,  $PO_4^{3^-}$ ,  $SO_4^{2^-}$ ) 100 mg/l in water

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### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### **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

Data are not available.

#### • If in eyes

Data are not available.

#### • If inhaled

Data are not available.

#### • If on skin

Data are not available.

#### • Other information

Health effects are not known.

#### **11.2** Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .



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## Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ , $CI^-$ , $Br^-$ , $NO_2^-$ , $NO_3^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ ) 100 mg/l in water

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## **SECTION 12: Ecological information**

- 12.1 Toxicity
- **12.2 Persistence and 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** Does not contain a PBT-/vPvB-substance in a concentration of  $\ge 0,1\%$ .

#### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of  $\ge 0,1\%$ .

#### 12.7 Other adverse effects

Data are not available.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### 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. Non-contaminated packages may be recycled.

## **SECTION 14: Transport information**

- 14.1 UN number
- 14.2 UN proper shipping name
- 14.3 Transport hazard class(es)
- 14.4 Packing group
- 14.5 Environmental hazards

not subject to transport regulations

not assigned

not assigned

not assigned

non-environmentally hazardous acc. to the dangerous goods regulations



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- **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 informationNational regulationsAdditional information(UN RTDG)

Not subject to transport regulations. UN RTDG

**International Maritime Dangerous Goods Code (IMDG) - Additional information** Not subject to IMDG.

**International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information** Not subject to ICAO-IATA.

## **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.

#### **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	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 (ACTIVE)



## Anion Multi-Element IC - Standard Solution ROTI®Star 7 anions ( $F^-$ , $CI^-$ , $Br^-$ , $NO_2^-$ , $NO_3^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ ) 100 mg/l in water

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LegendAIICAustralian Inventory of Industrial ChemicalsCICRChemical Inventory and Control RegulationCSCL-ENCSList of Existing and New Chemical Substances (CSCL-ENCS)DSLDomestic Substances List (DSL)ECSIEC Substance Inventory (EINECS, ELINCS, NLP)IECSCInventory of Existing Chemical SubstancesINSQNational Inventory of Chemical SubstancesISHA-ENCSInventory of Existing and New Chemical Substances (ISHA-ENCS)KECIKorea Existing Chemicals InventoryNZIOCNew Zealand Inventory of Chemicals and Chemical Substances (PICCS)PICCSPhilippine Inventory of Chemicals and Chemical Substances (PICCS)REACH Reg.REACH registered substanceTCSITaiwan Chemical Substance InventoryTSCAToxic Substance Control Act
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#### 15.2 Chemical Safety Assessment

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

## **SECTION 16: Other information**

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations		
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		
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions		
ΙΑΤΑ	International Air Transport Association		
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)		
ICAO	International Civil Aviation Organization		
IMDG	International Maritime Dangerous Goods Code		
NLP	No-Longer Polymer		
PBT	Persistent, Bioaccumulative and Toxic		
ppm	Parts per million		
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).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).



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#### 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).

#### Disclaimer

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