according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



date of compilation: 23.09.2016 Revision: 29.01.2024

Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 %  $HNO_{3}$ 

article number: **2574** Version: **3.0 en** Replaces version of: 16.02.2022 Version: (2)

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

#### 1.1 Product identifier

Identification of the substance

Article number

Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % HNO<sub>3</sub>

2574

Registration number (REACH)

not relevant (mixture)

#### 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

### **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- 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	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16

#### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 (CLP)

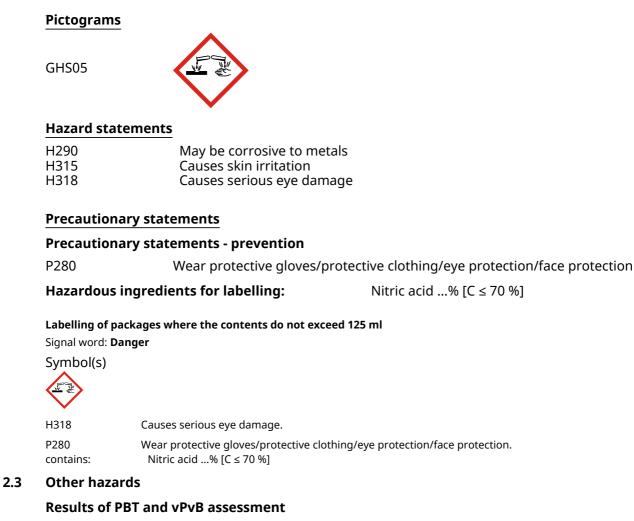
Signal word Danger

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

article number: 2574



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

#### Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) 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

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Nitric acid% [C ≤ 70 %]	CAS No 7697-37-2 EC No 231-714-2 Index No 007-030-00-3	3	Ox. Liq. 3 / H272 Met. Corr. 1 / H290 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318		B(a) GHS-HC IOELV

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

#### article number: 2574

#### Notes

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

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 sub- stance	Identifier	Specific Conc. Limits	<b>M-Factors</b>	ATE	Exposure route
Nitric acid% [C ≤ 70 %]	CAS No 7697-37-2 EC No 231-714-2 Index No 007-030-00-3	Ox. Liq. 3; H272: C ≥ 65 % Skin Corr. 1A; H314: C ≥ 20 % Skin Corr. 1B; H314: 5 % ≤ C < 20 %	-	2,65 <sup>mg</sup> / <sub>l</sub> /4h	inhalation: va- pour

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

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.

#### **Following ingestion**

Rinse mouth. Call a doctor if you feel unwell.

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

Risk of blindness, Risk of serious damage to eyes, Irritation

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

none

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 %  $HNO_{3}$ 

article number: 2574

### **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

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. Retain contaminated washing water and dispose of it. 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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

article number: 2574

### **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.

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
EU	nitric acid	7697-37- 2	IOELV			1	2,6				2006/15/ EC
MT	nitric acid	7697-37- 2	OELV			1	2,6				CAP. 424

#### Notation

STEL TWA

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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

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

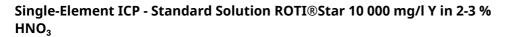
#### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



article number: 2574

#### Skin protection



#### 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 ° 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 consider-able 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)

#### 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: NO-P3 (against nitrous gases and particles, colour code: Blue/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
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	~100 °C at 1.013 mPa
Flammability	non-combustible
Lower and upper explosion limit	not determined



according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

® Roth

#### article number: 2574

icit	e number. <b>2374</b>	
	Flash point	not determined
	Auto-ignition temperature	not determined
	Decomposition temperature	not relevant
	pH (value)	<2 (20 °C)
	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
	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:	
	Corrosive to metals	category 1: corrosive to metals
	Other safety characteristics:	
	Miscibility	completely miscible with water

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

#### 10.1 Reactivity

9.2

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), Strong alkali

#### 10.4 Conditions to avoid

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

article number: 2574

Keep away from heat.

#### 10.5 Incompatible materials

different metals

#### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

### **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					
Name of substance	CAS No	Exposure route	ATE		
Nitric acid% [C ≤ 70 %]	7697-37-2	inhalation: vapour	2,65 <sup>mg</sup> / <sub>l</sub> /4h		

#### Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Nitric acid% [C ≤ 70 %]	7697-37-2	inhalation: va- pour	LC50	>2,65 <sup>mg</sup> / <sub>l</sub> /4h	rat

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### **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).

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

article number: 2574

#### 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

Causes serious eye damage, risk of blindness

#### • If inhaled

Data are not available.

#### • If on skin

causes skin irritation

• Other information

none

#### 11.2 Endocrine disrupting properties

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

#### 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.

#### 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 (ED) in a concentration of  $\ge 0,1\%$ .

#### 12.7 Other adverse effects

Data are not available.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

article number: 2574

### **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

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### 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.

#### Properties of waste which render it hazardous

HP 4 irritant - skin irritation and eye damage

#### 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 or ID number	
	ADR	UN 3264
	IMDG-Code	UN 3264
	ICAO-TI	UN 3264
14.2	UN proper shipping name	
	ADR	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
	IMDG-Code	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
	ICAO-TI	Corrosive liquid, acidic, inorganic, n.o.s.
	Technical name (hazardous ingredients)	Nitric acid% [C ≤ 70 %]
14.3	Transport hazard class(es)	
	ADR	8
	IMDG-Code	8
	ICAO-TI	8
14.4	Packing group	
	ADR	III

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

article number: 2574

	IMDG-Code	III		
	ICAO-TI	III		
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations		
14.6	Special precautions for user			
	Provisions for dangerous goods (ADR) should be o			
14.7	Maritime transport in bulk according to IMO in	nstruments		
	The cargo is not intended to be carried in bulk.			
14.8	Information for each of the UN Model Regulati	ons		
	Agreement concerning the International Carrie	age of Dangerous Goods by Road (ADR)Additiona		
	Proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.		
	Particulars in the transport document	UN3264, CORROSIVE LIQUID, ACIDIC, INORGAN- IC, N.O.S., (contains: Nitric acid% [C ≤ 70 %]), 8, III, (E)		
	Classification code	C1		
	Danger label(s)	8		
	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		
	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 LIQUID, ACIDIC, INORGAN- IC, N.O.S., (contains: Nitric acid% [C ≤ 70 %]), 8, III		
	Marine pollutant	-		
	Danger label(s)	8		
	Special provisions (SP)	223, 274		
	Excepted quantities (EQ)	E1		
	Limited quantities (LQ)	5 L		
	EmS	F-A, S-B		

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



### Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % HNO<sub>3</sub>

article number: 2574

Stowage category	A
Segregation group	1 - Acids
International Civil Aviation Organization (ICAO	-IATA/DGR) - Additional information
Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Particulars in the shipper's declaration	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (contains: Nitric acid% [C ≤ 70 %]), 8, III
Danger label(s)	8
Special provisions (SP)	A3
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 L

### SECTION 15: Regulatory information

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

**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	No				
Single-Element	this product meets the criteria for classification in accordance with Reg- ulation No 1272/2008/EC		R3	3				
Nitric acid% [C ≤ 70 %]	substances in tattoo inks and perman- 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 orna-mental 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,
Articles not complying with paragraph 1 shall not be placed on the market.
Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume,

or both, if they

a can be used as fuel in decorative oil lamps for supply to the general public, and
a 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.';



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

#### article number: 2574

Legen R75	1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such stances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is
	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 categor 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration or used to an activate the concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the substance is present in the mixture in a concentration of the substance is present in the mixture in a concentration of the substance is present in the s
	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 toxic category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % b
	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, 1A or 1B, 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 cat- egory 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;
	<ul> <li>(ii) 0,01 % by weight, in all other cases;</li> <li>(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in th mixture in a concentration equal to or greater than 0,00005 % by weight;</li> <li>(f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g</li> </ul>
	(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";
	(g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for u preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is presen the mixture in a concentration, or in some other way, that does not accord with the condition specified in that colu (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a 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 nutre into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures com-
	monly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the ai 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 stricter concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appen 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (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 stance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or suc
	that it then falls within a different one of those points from the one within which it fell previously, and the date of plication of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, pa graph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated 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 list 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.
	<ul> <li>7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022 mixture is marked with the following information:</li> <li>(a) the statement "Mixture for use in tattoos or permanent make-up";</li> </ul>
	(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, th IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" meai any substance added during the process of formulation and present in the mixture for use for tattooing purposes
	purities 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 ingr ent 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;
	<ul> <li>(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;</li> <li>(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration of the statement "Contains chromium (VI).</li> </ul>
	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) 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 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 p (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
	procedure with the information marked on the package or included in the instructions for use pursuant to this pa graph.



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $HNO_{3}$

#### article number: 2574

#### Legend

8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °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 accessory to 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)				
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		
	not assigned			

#### **Deco-Paint Directive**

VOC content	0 %
VOC content (Water content was discounted)	0 <sup>g</sup> / <sub>l</sub>

#### Industrial Emissions Directive (IED)

VOC content	0 %
VOC content (Water content was discounted)	0 <sup>g</sup> /l

# 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	Wt%	Type of registration	Re- marks	Limit value	Upper limit value for the pur- pose of licens- ing un- der Art icle 5(3)
Nitric acid% [C ≤ 70 %]	7697-37-2	3	Annex I		3 % w/w	10 % w/v



#### Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % HNO<sub>3</sub>

#### article number: 2574

#### 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

#### 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	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
РН	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
ΤW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

#### Legend AIIC

CICR CSCL-ENCS

Australian Inventory of Industrial Chemicals Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS)

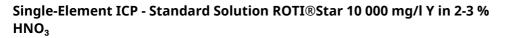
 DSL
 Domestic Substances List (DSL)

 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)



#### article number: 2574

Legend	
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

According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.

## **SECTION 16: Other information**

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
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		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0,1%.	yes
15.1	VOC content: 0 % 0 <sup>g</sup> / <sub>l</sub>	VOC content: 0 %	yes
15.1		VOC content (Water content was discounted): 0 <sup>g</sup> / <sub>l</sub>	yes
15.1		Explosives precursors which are subject to re- strictions: change in the listing (table)	yes
15.1		National inventories: change in the listing (table)	yes
15.2	Chemical Safety Assessment: Chemical safety assessments for substances in this mixture were not carried out.	Chemical safety assessment: According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.	yes

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

article number: 2574

bbreviations and acronyms		
Abbr.	Descriptions of used abbreviations	
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in impl mentation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC	
Acute Tox.	Acute toxicity	
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern ing the International Carriage of Dangerous Goods by Road)	
ATE	Acute Toxicity Estimate	
CAP. 424	Occupational Health and Safety Authority Act (CAP. 424)	
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances	
Ceiling-C	Ceiling value	
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures	
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 iden fier of substances commercially available within the EU (European Union)	
ED	Endocrine disruptor	
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 (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	

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



# Single-Element ICP - Standard Solution ROTI®Star 10 000 mg/l Y in 2-3 % $\rm HNO_3$

article number: 2574

Abbr.	Descriptions of used abbreviations
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
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

#### 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). 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.
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.