



# Single-element Standard Solution for ICP. Copper (Cu) 1000mg/L in HNO<sub>3</sub> 2%

## Safety Data Sheet

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

Date of issue: 2015/10/18 Revision date: 2019/02/12 Version: 1.1

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Single-element Standard Solution for ICP.  
Copper (Cu) 1000mg/L in HNO<sub>3</sub> 2%  
Product code : S015

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use  
Use of the substance/mixture : Reference material  
Function or use category : Laboratory chemicals

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Spectracer UK Ltd.

Second Floor,  
27 Gloucester Place,  
London,  
W1U 8HU,  
United Kingdom.

Tel: +44 (0) 207 193 9114

Fax: +44 (0) 203 432 4686

Email: [contact@spectracer.co.uk](mailto:contact@spectracer.co.uk)

Web: [www.spectracer.com](http://www.spectracer.com)

#### 1.4. Emergency telephone number

Emergency number : Tel: +44(0)1933 445260 Option 1. Language: English only.  
For Chemical Emergencies Only  
Llewellyn (Safety Advisors) Europe Ltd

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964	
United Kingdom	National Poisons Information Service (NHS Direct)	<a href="http://www.npis.org">http://www.npis.org</a>	111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland)	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the aquatic environment — H412

Chronic Hazard, Category 3

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Signal word (CLP) : -  
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.  
Precautionary statements (CLP) : P273 - Avoid release to the environment.  
EUH-statements : EUH210 - Safety data sheet available on request.

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### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
nitric acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23-XXXX	1 - 5	Ox. Liq. 2, H272 Met. Corr. 1, H290 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1A, H314 Eye Dam. 1, H318
copper(II) nitrate	(CAS-No.) 3251-23-8 (EC-No.) 221-838-5	0,1 - 0,5	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
nitric acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23-XXXX	( 5 =<C < 20) Skin Corr. 1B, H314 ( 20 =<C < 100) Skin Corr. 1A, H314 ( 65 =<C < 99) Ox. Liq. 3, H272 ( 99 =<C < 100) Ox. Liq. 2, H272

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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#### SECTION 6: Accidental release measures

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

###### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

###### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

##### 6.2. Environmental precautions

Avoid release to the environment.

##### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

##### 6.4. Reference to other sections

For further information refer to section 13.

#### SECTION 7: Handling and storage

##### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

##### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

##### 7.3. Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

##### 8.1. Control parameters

copper(II) nitrate (3251-23-8)		
EU	Local name	Copper(II) nitrate
EU	IOELV TWA (mg/m <sup>3</sup> )	0,01 mg/m <sup>3</sup> (respirable fraction)
EU	Notes	(Year of adoption 2014)
EU	Regulatory reference	SCOEL Recommendations
Finland	Local name	Kupari-(II)-nitraatti
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	0,02 mg/m <sup>3</sup> Cu, alveolijae
Finland	Huomautus (FI)	Cu
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup> (Koper en anorganische koperverbindingen (inhaleerbaar); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; inhaleerbaar)
United Kingdom	Local name	Copper and compounds
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> dusts and mists (as Cu)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> dusts and mists (as Cu)
nitric acid (7697-37-2)		
EU	Local name	Nitric acid
EU	IOELV STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup> (Nitric acid; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	1 ppm (Nitric acid; EU; Short time value; Indicative occupational exposure limit value)
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Austria	Local name	Salpetersäure
Austria	MAK Short time value (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	1 ppm

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nitric acid (7697-37-2)		
Austria	Regulatory reference	BGBI. II Nr. 186/2015
Belgium	Local name	Acide nitrique # Salpeterzuur
Belgium	Short time value (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Belgium	Short time value (ppm)	1 ppm
Belgium	Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Bulgaria	Local name	Азотна киселина
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Bulgaria	OEL STEL (ppm)	1 ppm
Bulgaria	Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Bulgaria	Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)
Croatia	Local name	Dušična kiselina
Croatia	KGVI (kratkotrajna гранична vrijednost izloženosti) (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Croatia	KGVI (kratkotrajna гранична vrijednost izloženosti) (ppm)	1 ppm
Croatia	Naznake (HR)	EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne граничне vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); O (oksidirajuće); C (nagrizajuće)
Croatia	Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o граниčnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim граниčnim vrijednostima (NN, br. 75/13)
Czech Republic	Local name	Kyselina dusičná
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (ppm)	0,39 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	2,5 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (NPK-P) (ppm)	1 ppm
Czech Republic	Remark (CZ)	I (dráždí sliznice (oči, dýchací cesty) resp. kůži)
Czech Republic	Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
Denmark	Local name	Salpetersyre
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Denmark	Grænseværdie (kortvarig) (ppm)	1 ppm
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi); S (betyder, at grænseværdien ikke bør overskrides. Værdien gælder for en eksponeringsperiode på 15 minutter)
Denmark	Regulatory reference	BEK nr 655 af 31/05/2018
Estonia	Local name	Lämmastikhape
Estonia	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Estonia	OEL STEL (ppm)	1 ppm
Estonia	Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland	Local name	Typpihappo
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1,3 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	0,5 ppm
Finland	HTP-arvo (15 min)	2,6 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	1 ppm

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nitric acid (7697-37-2)		
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
France	Local name	Acide nitrique
France	VLE (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
France	VLE (ppm)	1 ppm
France	Note (FR)	Valeurs réglementaires indicatives
France	Regulatory reference	Arrêté du 30 juin 2004 modifié (réf.: INRS ED 984, 2016)
Germany	TRGS 900 Local name	Salpetersäure
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	1 ppm
Germany	TRGS 900 Remark	EU;13;16
Germany	TRGS 900 Regulatory reference	TRGS900
Gibraltar	Short-term mg/m <sup>3</sup>	2,6 mg/m <sup>3</sup>
Gibraltar	Short-term ppm	1 ppm
Gibraltar	Name of agent	Nitric acid
Gibraltar	Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece	Local name	Νιτρικό οξύ
Greece	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Greece	OEL STEL (ppm)	1 ppm
Greece	Regulatory reference	Π.Δ. 162/2007
Hungary	Local name	SALÉTROMSAV
Hungary	CK-érték	2,6 mg/m <sup>3</sup>
Hungary	Megjegyzések (HU)	i (ingerlő anyag, amely izgatja a bőrt, nyálkahártyát, szemet vagy mindhármat), m (maró hatású anyag, amely felmarja a bőrt, nyálkahártyát, szemet vagy mindhármat); EU2 (2006/15/EK irányelvben közölt érték)
Hungary	Regulatory reference	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland	Local name	Nitric acid
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (ppm)	1 ppm
Ireland	Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Ireland	Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
Italy	Local name	Acido nitrico
Italy	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Italy	OEL STEL (ppm)	1 ppm
Italy	Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia	Local name	Slāpekļskābe
Latvia	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	0,78 ppm
Latvia	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Latvia	OEL STEL (ppm)	1 ppm
Latvia	Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325
Lithuania	Local name	Nitrato rūgštis (azoto rūgštis)
Lithuania	TPRV (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	1 ppm

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nitric acid (7697-37-2)		
Lithuania	Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg	Local name	Acide nitrique
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Luxembourg	OEL STEL (ppm)	1 ppm
Luxembourg	Regulatory reference	Mémorial A N° 684 de 2018
Malta	Local name	Nitric acid
Malta	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Malta	OEL STEL (ppm)	1 ppm
Malta	Regulatory reference	S.L.424.24 (L.N.57 of 2018)
Netherlands	Local name	Salpeterzuur
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	1,3 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 15MIN (ppm)	0,5 ppm (Salpeterzuur; Netherlands; Short time value; Public occupational exposure limit value)
Netherlands	Regulatory reference	Arbeidsomstandighedenregeling 2018
Portugal	Local name	Ácido nítrico
Portugal	OEL TWA (ppm)	2 ppm
Portugal	OEL STEL (ppm)	4 ppm
Portugal	Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia	Local name	Kyselina dusičná
Slovakia	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Slovakia	OEL STEL (ppm)	1 ppm
Slovakia	Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Slovenia	Local name	dušikova kislina
Slovenia	OEL TWA (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Slovenia	OEL TWA (ppm)	1 ppm
Slovenia	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Slovenia	OEL STEL (ppm)	1 ppm
Slovenia	KTV factor SL	1
Slovenia	Regulatory reference	Uradni list RS, št. 38/2015 z dne 4.6.2015
Spain	Local name	Ácido nítrico
Spain	VLA-EC (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	1 ppm
Spain	Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo).
Spain	Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2018. INSHT
Sweden	Local name	Salpetersyra
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1,3 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	0,5 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	1 ppm
Sweden	Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	1 ppm
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Iceland	Local name	Saltpéturssýra
Iceland	OEL (15 min ref) (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Iceland	OEL (15 min ref) (ppm)	1 ppm

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nitric acid (7697-37-2)		
Iceland	Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway	Local name	Salpetersyre
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	2 ppm
Norway	Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Norway	Regulatory reference	FOR-2018-08-21-1255
Turkey	Local name	Nitrik asit
Turkey	OEL STEL (mg/m <sup>3</sup> )	2,6 mg/m <sup>3</sup>
Turkey	OEL STEL (ppm)	1 ppm
Turkey	Regulatory reference	12 Ağustos 2013 Tarihli ve 28733 Sayılı Resmî Gazete
Australia	Local name	Nitric acid
Australia	TWA (mg/m <sup>3</sup> )	5,2 mg/m <sup>3</sup>
Australia	TWA (ppm)	2 ppm
Australia	STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Australia	STEL (ppm)	4 ppm
USA - ACGIH	Local name	Nitric acid
USA - ACGIH	ACGIH TWA (ppm)	2 ppm
USA - ACGIH	ACGIH STEL (ppm)	4 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr; dental erosion
USA - ACGIH	Regulatory reference	ACGIH 2018
USA - OSHA	Local name	Nitric acid
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
USA - OSHA	OSHA PEL (TWA) (ppm)	2 ppm

### 8.2. Exposure controls

#### Appropriate engineering controls:

Provide adequate general and local exhaust ventilation. Ensure good ventilation of the work station.

#### Personal protective equipment:

Protective clothing. Protective goggles. Gloves.

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

#### Personal protective equipment symbol(s):



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### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: < 2
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1,003
Solubility	: Miscible with water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified



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copper(II) nitrate (3251-23-8)	
LD50 oral rat	794 mg/kg
nitric acid (7697-37-2)	
LC50 inhalation rat (mg/l)	> 2,65 mg/l
Skin corrosion/irritation	: Not classified pH: < 2
Serious eye damage/irritation	: Not classified pH: < 2
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Toxic to aquatic life. Harmful to aquatic life with long lasting effects. Before neutralisation, the product may represent a danger to aquatic organisms.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Harmful to aquatic life with long lasting effects.

copper(II) nitrate (3251-23-8)	
LC50 fish 1	38,4 µg/l
nitric acid (7697-37-2)	
LC50 fish 1	72 mg/l
EC50 Daphnia 1	180 mg/l
Threshold limit algae 1	> 19 mg/l

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

nitric acid (7697-37-2)	
BCF fish 1	<= 1
Log Pow	-2,3

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

Component	
copper(II) nitrate (3251-23-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals

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### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### - Overland transport

Not regulated

#### - Transport by sea

Not regulated

#### - Air transport

Not regulated

#### - Inland waterway transport

Not regulated

#### - Rail transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Single-element Standard Solution for ICP. Copper (Cu) 1000mg/L in HNO <sub>3</sub> 2% - nitric acid
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	nitric acid
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	nitric acid
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Single-element Standard Solution for ICP. Copper (Cu) 1000mg/L in HNO <sub>3</sub> 2%

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

##### 15.1.2. National regulations

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### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Storage class (LGK) : LGK 12 - Non-combustible liquids

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Liq. 2	Oxidising Liquids, Category 2
Ox. Liq. 3	Oxidising Liquids, Category 3
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Aquatic Chronic 3	H412	Annex VII conversion
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SDS EU Mod H F (REACH ANNEX II)

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*