



# FLYLEAF

## Article: 0120 ROTI®Quant Universal for biochemistry

Date of compilation: 2022-01-21

### 1 Composition/information on ingredients

#### Bill of materials

| Name of substance               | Identifier          | Number of pieces | Classification acc. to GHS                | Pictograms  | Page    |
|---------------------------------|---------------------|------------------|---|---|---------|
| ROTI®-Quant universal reagent 1 | Article number 0118 | 1                | Skin Irrit. 2 / H315<br>Eye Dam. 1 / H318 |   | 5 - 17  |
| ROTI®-Quant universal reagent 2 | Article number 0119 | 1                | Aquatic Chronic 2 / H411                  |  | 18 - 34 |

# Article: 0120 ROTI®Quant Universal

## 2 Hazards identification

### 2.1 Label elements

**Signal word** Danger

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

#### Pictograms

Danger.



#### Hazard statement(s)

H315 Causes skin irritation  
H318 Causes serious eye damage  
H411 Toxic to aquatic life with long lasting effects

#### Precautionary statements

##### **Precautionary statements - prevention**

P273 Avoid release to the environment  
P280 Wear protective gloves/eye protection

##### **Precautionary statements - response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 Immediately call a doctor

## 3 Transport information

### 3.1 UN number or ID number

ADR/RID/ADN UN 3082  
IMDG-Code UN 3082  
ICAO-TI UN 3082

### 3.2 UN proper shipping name

ADR/RID/ADN ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
IMDG-Code ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
ICAO-TI Environmentally hazardous substance, liquid, n.o.s.  
Technical name Copper(II) sulphate



### 3.3 Transport hazard class(es)

ADR/RID/ADN 9  
IMDG-Code 9  
ICAO-TI 9

### 3.4 Packing group



ADR/RID/ADN III  
IMDG-Code III

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|   |   |
|---|---|
| ICAO-TI   | III   |
| <b>3.5 Environmental hazards</b>  | hazardous to the aquatic environment  |
| <b>3.6 Special precautions for user</b>   |   |
|   | Provisions for dangerous goods (ADR) should be complied within the premises.                    |
| <b>3.7 Maritime transport in bulk according to IMO instruments</b>  |   |
|   | The cargo is not intended to be carried in bulk.  |
| <b>3.8 Information for each of the UN Model Regulations</b>   |   |
| <b>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information</b>  |   |
| Proper shipping name  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.   |
| Particulars in the transport document   | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Copper(II) sulphate), 9, III, (-) |
| Classification code   | M6  |
| Environmental hazards   | yes (hazardous to the aquatic environment)  |
| Special provisions (SP)   | 274, 335, 375, 601  |
| Excepted quantities (EQ)  | E1  |
| Limited quantities (LQ)   | 5 L   |
| Transport category (TC)   | 3   |
| Tunnel restriction code (TRC)   | -   |
| Hazard identification No  | 90  |
| <b>Emergency Action Code</b>  | 3Z  |
| <b>International Maritime Dangerous Goods Code (IMDG) - Additional information</b>  |   |
| Proper shipping name  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.   |
| Particulars in the shipper's declaration  | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Copper(II) sulphate), 9, III      |
| Marine pollutant  | yes (hazardous to the aquatic environment), (Copper(II) sulphate)                               |
| Danger label(s)   | 9, "Fish and tree"  |
|   |   |
| Special provisions (SP)   | 274, 335, 969   |
| Excepted quantities (EQ)  | E1  |
| Limited quantities (LQ)   | 5 L   |
| EmS   | F-A, S-F  |
| Stowage category  | A   |

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

|   |  |
|---|--|
| Proper shipping name  | Environmentally hazardous substance, liquid, n.o.s.  |
| Particulars in the shipper's declaration  | UN3082, Environmentally hazardous substance, liquid, n.o.s., (Copper(II) sulphate), 9, III |
| Environmental hazards   | yes (hazardous to the aquatic environment)   |
| Danger label(s)   | 9, "Fish and tree"   |
|   |  |
| Special provisions (SP)   | A97, A158, A197, A215  |
| Excepted quantities (EQ)  | E1   |
| Limited quantities (LQ)   | 30 kg  |

# Safety data sheet

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



## ROTI®-Quant universal reagent 1

article number: **0118**  
Version: **2.0 en**  
Replaces version of: 2020-09-03  
Version: (1)

date of compilation: 2020-09-03  
Revision: 2022-01-21

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

### 1.1 Product identifier

Identification of the substance **ROTI®-Quant universal reagent 1**  
Article number 0118  
Registration number (REACH) not relevant (mixture)

### 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 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](mailto:sicherheit@carlroth.de)  
**Website:** [www.carlroth.de](http://www.carlroth.de)

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

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

### 1.4 Emergency telephone number

| Name  | Street    | Postal code/city     | Telephone    | Website |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service<br>City Hospital | Dudley Rd | B187QH<br>Birmingham | 844 892 0111 |         |

## 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 |
|---------|-----------------------------------|-----------|---------------------------|------------------|
| 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

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## ROTI®-Quant universal reagent 1

article number: 0118

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

**Signal word**                      **Danger**

### Pictograms

GHS05



### Hazard statements

H315                      Causes skin irritation  
H318                      Causes serious eye damage

### Precautionary statements

#### **Precautionary statements - prevention**

P280                      Wear protective gloves/eye protection

#### **Precautionary statements - response**

P305+P351+P338      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310                      Immediately call a doctor

### **Labelling of packages where the contents do not exceed 125 ml**

Signal word: **Danger**

Symbol(s)



H318                      Causes serious eye damage.  
P280                      Wear protective gloves/eye protection.  
P305+P351+P338      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310                      Immediately call a doctor.

## 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**

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

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### 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

### 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.

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### 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.

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

##### Advice on how to contain a spill

Covering of drains.

##### Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

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

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

No special measures are necessary.

##### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

##### 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.



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## ROTI®-Quant universal reagent 1

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### 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     |
|---------|---------------|------------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|------------|
| EU      | sodium azide  | 26628-22-8 | IOELV      |           | 0,1                      |            | 0,3                       |                 |                                |          | 2000/39/EC |
| GB      | sodium azide  | 26628-22-8 | WEL        |           | 0,1                      |            | 0,3                       |                 |                                |          | EH40/2005  |

##### Notation

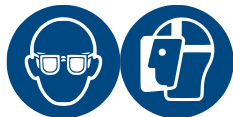
Ceiling-C  
STEL  
TWA

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 15-minute period (unless otherwise specified)  
Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

#### 8.2 Exposure controls

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

##### Eye/face protection



Use safety goggles with side protection.

##### 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 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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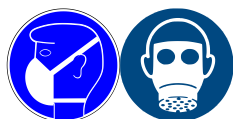
## ROTI®-Quant universal reagent 1

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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. Usually no personal respiratory 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   | clear   |
| Odour  | characteristic                                |
| Melting point/freezing point                             | not determined                                |
| Boiling point or initial boiling point and boiling range | not determined                                |
| 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                                |
| <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  | 1,1 g/cm <sup>3</sup>                         |
| 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: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Miscibility completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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 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.

#### **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.

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### **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**

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**

None of the ingredients are listed.

### **11.3 Information on other hazards**

There is no additional information.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

### **Biodegradation**

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

### **12.2 Process of degradability**

Data are not available.

### **12.3 Bioaccumulative potential**

Data are not available.

### **12.4 Mobility in soil**

Data are not available.

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### 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.

### 13.2 Relevant provisions relating to waste

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

### 13.3 Remarks

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

## SECTION 14: Transport information

- |  |   |
|--|---|
| 14.1 UN number or ID number  | not subject to transport regulations                                  |
| 14.2 UN proper shipping name   | not assigned  |
| 14.3 Transport hazard class(es)  | none  |
| 14.4 Packing group   | not assigned  |
| 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 Maritime transport in bulk according to IMO instruments   | The cargo is not intended to be carried in bulk.                      |
| 14.8 <u>Information for each of the UN Model Regulations</u>   |   |
| <b>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information</b> | Not subject to ADR, RID and ADN.                                      |
| <b>International Maritime Dangerous Goods Code (IMDG) - Additional information</b>                           | Not subject to IMDG.  |

# Safety data sheet

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### 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

#### 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 |
| ROTI®-Quant universal reagent 1                            | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter fluid may lead to life threatening lung damage";
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

#### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

#### Seveso Directive

| 2012/18/EU (Seveso III) |                                       |   |       |
|-------------------------|---------------------------------------|---|-------|
| No                      | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | Notes |
|                         | not assigned                          |   |       |

#### Deco-Paint Directive

|             |       |
|-------------|-------|
| VOC content | 0,9 % |
|-------------|-------|

#### Industrial Emissions Directive (IED)

|             |     |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

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### 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

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### Other information

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

### National inventories

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

#### Legend

|           |   |
|-----------|---|
| AICS      | Australian Inventory of Chemical Substances                             |
| CICR      | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL       | Domestic Substances List (DSL)  |
| ECSI      | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC     | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ      | National Inventory of Chemical Substances                               |
| KECI      | Korea Existing Chemicals Inventory                                      |
| NZIoC     | New Zealand Inventory of Chemicals                                      |
| PICCS     | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |

# Safety data sheet

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## ROTI®-Quant universal reagent 1

article number: 0118

### Legend

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

Restructuring: section 9, section 14

| Section | Former entry (text/value)                             | Actual entry (text/value)  | Safety-relevant |
|---------|---|--|-----------------|
| 2.1     |   | Classification according to Regulation (EC) No 1272/2008 (CLP):<br>change in the listing (table)                             | yes             |
| 2.3     | Other hazards:<br>There is no additional information. | Other hazards  | yes             |
| 2.3     |   | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | yes             |

### Abbreviations and acronyms

| Abbr.      | Descriptions of used abbreviations  |
|------------|---|
| 2000/39/EC | Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC   |
| ADN        | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR        | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)   |
| 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)  |
| EH40/2005  | EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )                                 |
| 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 Nations   |
| IATA       | International Air Transport Association   |
| IATA/DGR   | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO       | International Civil Aviation Organization   |



# Safety data sheet

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



## ROTI®-Quant universal reagent 1

article number: **0118**

| Abbr. | Descriptions of used abbreviations  |
|-------|---|
| IMDG  | International Maritime Dangerous Goods Code   |
| IOELV | Indicative occupational exposure limit value  |
| NLP   | No-Longer Polymer   |
| PBT   | Persistent, Bioaccumulative and Toxic   |
| ppm   | Parts per million   |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID   | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| 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  |
| WEL   | Workplace exposure limit  |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). 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                       |
|------|----------------------------|
| H315 | Causes skin irritation.    |
| H318 | Causes serious eye damage. |

### Disclaimer

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

# Safety data sheet

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



## ROTI®-Quant universal reagent 2

article number: **0119**  
Version: **3.0 en**  
Replaces version of: 2020-09-04  
Version: (2)

date of compilation: 2020-09-03  
Revision: 2022-01-21

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

### 1.1 Product identifier

Identification of the substance **ROTI®-Quant universal reagent 2**  
Article number 0119  
Registration number (REACH) not relevant (mixture)

### 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 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 |
|---|-----------|----------------------|--------------|---------|
| National Poisons Information Service<br>City Hospital | Dudley Rd | B187QH<br>Birmingham | 844 892 0111 |         |

## 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 |
|---------|---|-----------|---------------------------|------------------|
| 4.1C    | Hazardous to the aquatic environment - chronic hazard | 2         | Aquatic Chronic 2         | H411             |

For full text of abbreviations: see SECTION 16

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

Spillage and fire water can cause pollution of watercourses.

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## ROTI®-Quant universal reagent 2

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### 2.2 Label elements

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

**Signal word** Not required

#### Pictograms

GHS09



#### Hazard statements

H411 Toxic to aquatic life with long lasting effects

#### Precautionary statements

##### Precautionary statements - prevention

P273 Avoid release to the environment

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: Not required.

Symbol(s)



### 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  |
|---------------------|---|-----|--|------------|--------|
| Copper(II) sulphate | CAS No<br>7758-98-7<br><br>EC No<br>231-847-6<br><br>Index No<br>029-004-00-0 | < 2 | Acute Tox. 4 / H302<br>Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 | <br>       | GHS-HC |

#### Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

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## ROTI®-Quant universal reagent 2

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| Name of substance   | Identifier  | Specific Conc. Limits | M-Factors | ATE       | Exposure route |
|---------------------|---|-----------------------|-----------|-----------|----------------|
| Copper(II) sulphate | CAS No<br>7758-98-7<br><br>EC No<br>231-847-6<br><br>Index No<br>029-004-00-0 | -                     | -         | 482 mg/kg | oral           |

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

No special measures are necessary.

#### Following inhalation

Provide fresh air.

#### 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

## 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

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## ROTI®-Quant universal reagent 2

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

Non-combustible.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. 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

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.

### 6.4 Reference to other sections

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures are necessary.

#### Measures to protect the environment

Avoid release to the environment.

#### 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

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## ROTI®-Quant universal reagent 2

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### 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)

This information is not available.

#### Relevant DNELs of components of the mixture

| Name of substance   | CAS No    | End-point | Threshold level     | Protection goal, route of exposure | Used in           | Exposure time              |
|---------------------|-----------|-----------|---------------------|------------------------------------|-------------------|----------------------------|
| Copper(II) sulphate | 7758-98-7 | DNEL      | 1 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |
| Copper(II) sulphate | 7758-98-7 | DNEL      | 1 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - local effects    |
| Copper(II) sulphate | 7758-98-7 | DNEL      | 137 mg/kg bw/day    | human, dermal                      | worker (industry) | chronic - systemic effects |

#### Relevant PNECs of components of the mixture

| Name of substance   | CAS No    | End-point | Threshold level | Organism              | Environmental compartment    | Exposure time                |
|---------------------|-----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Copper(II) sulphate | 7758-98-7 | PNEC      | 7,8 µg/l        | aquatic organisms     | freshwater                   | short-term (single instance) |
| Copper(II) sulphate | 7758-98-7 | PNEC      | 5,2 µg/l        | aquatic organisms     | marine water                 | short-term (single instance) |
| Copper(II) sulphate | 7758-98-7 | PNEC      | 230 µg/l        | aquatic organisms     | sewage treatment plant (STP) | short-term (single instance) |
| Copper(II) sulphate | 7758-98-7 | PNEC      | 87 mg/kg        | aquatic organisms     | freshwater sediment          | short-term (single instance) |
| Copper(II) sulphate | 7758-98-7 | PNEC      | 676 mg/kg       | aquatic organisms     | marine sediment              | short-term (single instance) |
| Copper(II) sulphate | 7758-98-7 | PNEC      | 65 mg/kg        | terrestrial organisms | soil                         | short-term (single instance) |

### 8.2 Exposure controls

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

#### Eye/face protection



Use safety goggle with side protection.

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### 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 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)

#### • other protection measures

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

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation.

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |                 |
|--|-----------------|
| Physical state   | liquid          |
| Colour   | blue            |
| Odour  | odourless       |
| Melting point/freezing point                             | ~0 °C           |
| 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  |

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|   |   |
|---|---|
| Auto-ignition temperature                           | not determined  |
| Decomposition temperature                           | not relevant  |
| pH (value)  | 7 (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               |
| Particle characteristics                            | not relevant (liquid)                                       |
| <u>Other safety parameters</u>                      |   |
| Oxidising properties                                | none  |
| <b>9.2 Other information</b>                        |   |
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics:                       |   |
| Miscibility   | completely miscible with water                              |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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.



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### 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 of the mixture

| Name of substance   | CAS No    | Exposure route | ATE       |
|---------------------|-----------|----------------|-----------|
| Copper(II) sulphate | 7758-98-7 | oral           | 482 mg/kg |

#### Acute toxicity of components of the mixture

| Name of substance   | CAS No    | Exposure route | Endpoint | Value        | Species |
|---------------------|-----------|----------------|----------|--------------|---------|
| Copper(II) sulphate | 7758-98-7 | oral           | LD50     | 482 mg/kg    | rat     |
| Copper(II) sulphate | 7758-98-7 | dermal         | LD50     | >2.000 mg/kg | rat     |

##### 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.

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### Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

gastrointestinal complaints

- **If in eyes**

Data are not available.

- **If inhaled**

Data are not available.

- **If on skin**

Data are not available.

- **Other information**

none

### 11.2 Endocrine disrupting properties

None of the ingredients are listed.

### 11.3 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

#### Aquatic toxicity (acute) of components of the mixture

| Name of substance   | CAS No    | Endpoint | Value    | Species | Exposure time |
|---------------------|-----------|----------|----------|---------|---------------|
| Copper(II) sulphate | 7758-98-7 | LC50     | 193 µg/l | fish    | 96 h          |

### 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.

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### 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. Avoid release to the environment. Refer to special instructions/safety data sheets.

##### Waste treatment of containers/packagings

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

#### 13.2 Relevant provisions relating to waste

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

#### 13.3 Remarks

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

### SECTION 14: Transport information

#### 14.1 UN number or ID number

|             |         |
|-------------|---------|
| ADR/RID/ADN | UN 3082 |
| IMDG-Code   | UN 3082 |
| ICAO-TI     | UN 3082 |

#### 14.2 UN proper shipping name

|  |   |
|--|---|
| ADR/RID/ADN                            | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| IMDG-Code                              | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| ICAO-TI                                | Environmentally hazardous substance, liquid, n.o.s. |
| Technical name (hazardous ingredients) | Copper(II) sulphate                                 |

#### 14.3 Transport hazard class(es)

|             |   |
|-------------|---|
| ADR/RID/ADN | 9 |
| IMDG-Code   | 9 |
| ICAO-TI     | 9 |

#### 14.4 Packing group

|             |     |
|-------------|-----|
| ADR/RID/ADN | III |
| IMDG-Code   | III |
| ICAO-TI     | III |

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**14.5 Environmental hazards** hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment): Copper(II) sulphate

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

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

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Particulars in the transport document UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Copper(II) sulphate, solution), 9, III, (-)

Classification code M6

Danger label(s) 9, "Fish and tree"



Environmental hazards YES (hazardous to the aquatic environment)

Special provisions (SP) 274, 335, 375, 601

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

Transport category (TC) 3

Tunnel restriction code (TRC) -

Hazard identification No 90

**Emergency Action Code** 3Z

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

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Particulars in the shipper's declaration UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Copper(II) sulphate, solution), 9, III

Marine pollutant YES (hazardous to the aquatic environment), (Copper(II) sulphate)

Danger label(s) 9, "Fish and tree"



Special provisions (SP) 274, 335, 969

Excepted quantities (EQ) E1

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|                         |          |
|-------------------------|----------|
| Limited quantities (LQ) | 5 L      |
| EmS                     | F-A, S-F |
| Stowage category        | A        |

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

|   |  |
|---|--|
| Proper shipping name  | Environmentally hazardous substance, liquid, n.o.s.  |
| Particulars in the shipper's declaration  | UN3082, Environmentally hazardous substance, liquid, n.o.s., (Copper(II) sulphate, solution), 9, III |
| Environmental hazards   | yes (hazardous to the aquatic environment)   |
| Danger label(s)   | 9, "Fish and tree"   |
|  |  |
| Special provisions (SP)   | A97, A158, A197, A215  |
| Excepted quantities (EQ)  | E1   |
| Limited quantities (LQ)   | 30 kg  |

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

#### Restrictions according to REACH, Annex XVII

none of the ingredients are listed

| Dangerous substances with restrictions (REACH, Annex XVII) |  |        |             |    |
|--|--|--------|-------------|----|
| Name of substance  | Name acc. to inventory   | CAS No | Restriction | No |
| ROTI®-Quant universal reagent 2                            | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | R3          | 3  |

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
    - tricks and jokes,
    - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
  2. Articles not complying with paragraph 1 shall not be placed on the market.
  3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
    - can be used as fuel in decorative oil lamps for supply to the general public, and
    - present an aspiration hazard and are labelled with H304.
  4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
  5. Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
    - (a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
    - (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid' may lead to life threatening lung damage';
    - (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

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### List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

None of the ingredients are listed.

### Seveso Directive

| 2012/18/EU (Seveso III) |  |   |     |       |
|-------------------------|--|---|-----|-------|
| No                      | Dangerous substance/hazard categories                                | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements |     | Notes |
| E2                      | environmental hazards (hazardous to the aquatic environment, cat. 2) | 200   | 500 | 57)   |

#### Notation

57) Hazardous to the Aquatic Environment in category Chronic 2

### Deco-Paint Directive

|             |                |
|-------------|----------------|
| VOC content | 0 %<br>, 0 g/l |
|-------------|----------------|

### Industrial Emissions Directive (IED)

|   |       |
|---|-------|
| VOC content                                 | 0 %   |
| VOC content<br>Water content was discounted | 0 g/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

### Water Framework Directive (WFD)

| List of pollutants (WFD) |   |        |           |         |
|--------------------------|---|--------|-----------|---------|
| Name of substance        | Name acc. to inventory  | CAS No | Listed in | Remarks |
| Copper(II) sulphate      | Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment |        | A)        |         |
| Copper(II) sulphate      | Metals and their compounds  |        | A)        |         |

#### Legend

A) Indicative list of the main pollutants

### Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

### Regulation on drug precursors

none of the ingredients are listed

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### Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

### Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

### Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

### Other information

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

### National inventories

| Country | Inventory  | Status                         |
|---------|------------|--------------------------------|
| AU      | AICS       | 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     |
| 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

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

## 15.2 Chemical Safety Assessment

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

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### SECTION 16: Other information

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

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

Restructuring: section 9, section 14

| Section | Former entry (text/value)                             | Actual entry (text/value)   | Safety-relevant |
|---------|---|---|-----------------|
| 2.1     |   | Classification according to Regulation (EC) No 1272/2008 (CLP):<br>change in the listing (table)  | yes             |
| 2.1     |   | The most important adverse physicochemical, human health and environmental effects:<br>Spillage and fire water can cause pollution of watercourses. | yes             |
| 2.3     | Other hazards:<br>There is no additional information. | Other hazards   | yes             |
| 2.3     |   | Results of PBT and vPvB assessment:<br>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.                        | yes             |

#### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| Acute Tox.      | Acute toxicity  |
| ADN             | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR             | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)   |
| ADR/RID/ADN     | Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)   |
| Aquatic Acute   | Hazardous to the aquatic environment - acute hazard   |
| Aquatic Chronic | Hazardous to the aquatic environment - chronic hazard   |
| ATE             | Acute Toxicity Estimate   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| DNEL            | Derived No-Effect Level   |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| 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   |



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| Abbr.       | Descriptions of used abbreviations  |
|-------------|---|
| 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   |
| 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  |
| LC50        | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                       |
| LD50        | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval  |
| NLP         | No-Longer Polymer   |
| PBT         | Persistent, Bioaccumulative and Toxic   |
| PNEC        | Predicted No-Effect Concentration   |
| REACH       | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID         | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr.  | Corrosive to skin   |
| Skin Irrit. | Irritant to skin  |
| SVHC        | Substance of Very High Concern  |
| 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.

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

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article number: **0119**

| Code | Text  |
|------|---|
| H302 | Harmful if swallowed.                                 |
| H315 | Causes skin irritation.                               |
| H319 | Causes serious eye irritation.                        |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects.      |

### Disclaimer

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