

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Version: **2.1 en**

Replaces version of: 14.12.2022

Version: (2)

date of compilation: 28.10.2022

Revision: 19.01.2023

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

### 1.1 Product identifier

Identification of the substance

**Oxalic acid solution** ROTI®Volum ROTI®VOLUM  
0,05 mol/l - 0,1 N

Article number

CN59

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.16	Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16

### 2.2 Label elements

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

**Signal word**

**Danger**

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## Pictograms

GHS05



## Hazard statements

H290 May be corrosive to metals  
H315 Causes skin irritation  
H318 Causes serious eye damage

## Precautionary statements

### **Precautionary statements - prevention**

P280 Wear protective gloves/eye protection/face 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 POISON CENTER/doctor

**Hazardous ingredients for labelling:** Oxalic acid dihydrate, Sulphuric acid ...%

**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/face 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 POISON CENTER/doctor.  
contains: Oxalic acid dihydrate, Sulphuric acid ...%

## **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**

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Sulphuric acid ...%	CAS No 7664-93-9  EC No 231-639-5  Index No 016-020-00-8  REACH Reg. No 01-2119458838- 20-xxxx	5 – 10	Met. Corr. 1 / H290 Skin Corr. 1A / H314 Eye Dam. 1 / H318		B(a) GHS-HC IARC: 1 IOELV RoC "Known"
Oxalic acid dihydrate	CAS No 6153-56-6  EC No 205-634-3  Index No 607-006-00-8	3 – 7	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Eye Dam. 1 / H318		GHS-HC IOELV

### Notes

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

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

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

IOELV: Substance with a community indicative occupational exposure limit value

RoC NTP-RoC: Known To Be A Human Carcinogen

"Known"

:

Name of substance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Sulphuric acid ...%	CAS No 7664-93-9  EC No 231-639-5  Index No 016-020-00-8	Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Dam. 1; H318: C ≥ 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %	-	-	
Oxalic acid dihydrate	CAS No 6153-56-6  EC No 205-634-3  Index No 607-006-00-8	-	-	500 mg/kg 1.100 mg/kg	oral dermal

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off immediately all contaminated clothing.

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## 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 immediately and drink plenty of water. Call a physician immediately.

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

Corrosion, Risk of blindness, Gastric perforation, 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

Ingredients of the mixture combustible. The product itself does not burn.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## 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.

### Advice on general occupational hygiene

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

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

Keep container tightly closed.

### Incompatible substances or mixtures

Observe hints for combined storage.

### Consideration of other advice:

### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m <sup>3</sup> ]	STE L [pp m]	STEL [mg/ m <sup>3</sup> ]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m <sup>3</sup> ]	Nota- tion	Source
EU	oxalic acid	144-62-7	IOELV		1						2006/15/ EC
EU	sulfuric acid	7664-93-9	IOELV		0,05					t, mist	2009/ 161/EU
MT	oxalic acid	144-62-7	OELV		1						CAP. 424
MT	sulfuric acid	7664-93-9	OELV		0,05					t, mist	CAP. 424

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

### Notation

Ceiling-C	Ceiling value is a limit value above which exposure should not occur
mist	As mists
STEL	Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
t	Thoracic fraction
TWA	Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

### 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
Sulphuric acid ...%	7664-93-9	DNEL	0,05 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
Sulphuric acid ...%	7664-93-9	DNEL	0,1 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects
Oxalic acid dihydrate	6153-56-6	DNEL	3,11 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Oxalic acid dihydrate	6153-56-6	DNEL	0,882 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
Sulphuric acid ...%	7664-93-9	PNEC	0,003 mg/l	aquatic organisms	freshwater	short-term (single instance)
Sulphuric acid ...%	7664-93-9	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Sulphuric acid ...%	7664-93-9	PNEC	8,8 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sulphuric acid ...%	7664-93-9	PNEC	0,002 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sulphuric acid ...%	7664-93-9	PNEC	0,002 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Oxalic acid dihydrate	6153-56-6	PNEC	0,16 mg/l	aquatic organisms	freshwater	short-term (single instance)
Oxalic acid dihydrate	6153-56-6	PNEC	0,016 mg/l	aquatic organisms	marine water	short-term (single instance)
Oxalic acid dihydrate	6153-56-6	PNEC	1.550 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: CN59

### 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

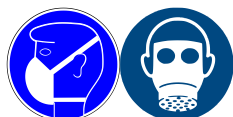
#### • breakthrough times of the glove material

>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. Usually no personal respirative protection necessary.

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless - clear
Odour	odourless
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

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	<1 (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):	this information is not available
Vapour pressure	not determined
<u>Density and/or relative density</u>	
Density	1,05 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

**9.2 Other information**

Information with regard to physical hazard classes:

Corrosive to metals	category 1: corrosive to metals
Other safety characteristics:	
Miscibility	completely miscible with water

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Substance or mixture corrosive to metals.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** Strong alkali

### 10.4 Conditions to avoid

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

### 10.5 Incompatible materials

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

different metals

## Release of flammable materials with

Metals, Light metals (due to the release of hydrogen in an acid/alkaline medium)

## 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on 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
Oxalic acid dihydrate	6153-56-6	oral	500 mg/kg
Oxalic acid dihydrate	6153-56-6	dermal	1.100 mg/kg

#### Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Sulphuric acid ...%	7664-93-9	oral	LD50	2.140 mg/kg	rat
Oxalic acid dihydrate	6153-56-6	oral	LD50	7.500 mg/kg	rat
Oxalic acid dihydrate	6153-56-6	dermal	LD50	20.000 mg/kg	rabbit

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: CN59

### 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.

Aquatic toxicity (acute) of components of the mixture					
Name of sub-stance	CAS No	Endpoint	Value	Species	Exposure time
Sulphuric acid ...%	7664-93-9	EC50	>100 mg/l	aquatic invertebrates	48 h
Sulphuric acid ...%	7664-93-9	ErC50	>100 mg/l	algae	72 h
Oxalic acid dihydrate	6153-56-6	EC50	162,2 mg/l	aquatic invertebrates	48 h
Oxalic acid dihydrate	6153-56-6	ErC50	<21,35 mg/l	algae	72 h

### 12.2 Persistence and degradability

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Oxalic acid dihydrate	6153-56-6	biotic/abiotic	40 %	5 d	anhydrous	
Oxalic acid dihydrate	6153-56-6	oxygen depletion	89 %	5 d		ECHA

## 12.3 Bioaccumulative potential

Data are not available.

## Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Oxalic acid dihydrate	6153-56-6		-1,74	0,8889

## 12.4 Mobility in soil

Data are not available.

## 12.5 Results of PBT and vPvB assessment

Data are not available.

## 12.6 Endocrine disrupting properties

None of the ingredients are listed.

## 12.7 Other adverse effects

Data are not available.

# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Sewage disposal-relevant information

Do not empty into drains.

### Waste treatment of containers/packagings

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.

### Properties of waste which render it hazardous

**HP 4** irritant - skin irritation and eye damage

**HP 8** corrosive

## 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.

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR	UN 3264
IMDG-Code	UN 3264
ICAO-TI	UN 3264

### 14.2 UN proper shipping name

ADR	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
IMDG-Code	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
ICAO-TI	Corrosive liquid, acidic, inorganic, n.o.s.
Technical name (hazardous ingredients)	Sulphuric acid ...%

### 14.3 Transport hazard class(es)

ADR	8
IMDG-Code	8
ICAO-TI	8

### 14.4 Packing group

ADR	II
IMDG-Code	II
ICAO-TI	II

### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user


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

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information

Proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Particulars in the transport document	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (contains: Sulphuric acid ...%), 8, II, (E)
Classification code	C1
Danger label(s)	8
	
Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Transport category (TC)	2
Tunnel restriction code (TRC)	E
Hazard identification No	80

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

Proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Particulars in the shipper's declaration	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (contains: Sulphuric acid ...%), 8, II
Marine pollutant	-
Danger label(s)	8



Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B
Segregation group	1 - Acids

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

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Particulars in the shipper's declaration	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (contains: Sulphuric acid ...%), 8, II
Danger label(s)	8



Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

## SECTION 15: Regulatory information

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

#### 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
Oxalic acid solution	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Sulphuric acid ...%	substances in tattoo inks and permanent make-up		R75	75

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: CN59

### Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	CAS No	Restriction	No
Oxalic acid dihydrate	substances in tattoo inks and permanent make-up		R75	75

#### Legend

- R3
1. Shall not be used in:
    - ornamental articles intended to produce light or colour effects by means of different phases, for example in 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.;

## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

### Legend

- R75** 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
- (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
  - (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
  - (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
  - (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
    - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
    - (ii) 0,01 % by weight, in all other cases;
  - (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (\*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
  - (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
    - (i) "Rinse-off products";
    - (ii) "Not to be used in products applied on mucous membranes";
    - (iii) "Not to be used in eye products";
  - (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
  - (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
- (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
  - (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
- (a) the statement "Mixture for use in tattoos or permanent make-up";
  - (b) a reference number to uniquely identify the batch;
  - (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
  - (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
  - (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
  - (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
  - (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.
- The information shall be clearly visible, easily legible and marked in a way that is indelible.
- The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.
- Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.
- Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: CN59

### Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

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

None of the ingredients are listed.

### Seveso Directive

2012/18/EU (Seveso III)			
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	4,2 % 510,7 g/l
-------------	--------------------

### Industrial Emissions Directive (IED)

VOC content	0 %
VOC content (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
Sulphuric acid ...%	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)	

### Legend

A) Indicative list of the main pollutants

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

## Regulation on the marketing and use of explosives precursors

Explosives precursors which are subject to restrictions						
Name of substance	CAS No	Wt%	Type of registration	Re- marks	Limit value	Upper limit value for the purpose of licens- ing un- der Art- icle 5(3)
Sulphuric acid ...%	7664-93-9	9	Annex I		15 % w/w	40 % w/w

### Legend

annex I Substances which shall not be made available to members of the general public on their own, or in mixtures or substances including them, except if the concentration is equal to or lower than the limit values set out below

### Additional statements

If the product is passed on to third parties, in accordance with Article 7 "Notification of the supply chain" of Regulation EU 2019/1148, the information obligation is subject to the entire supply chain and all other provisions mentioned in Article 7 on restricted and regulated raw materials.

## Regulation on drug precursors

Name of substance	CAS No	Wt%	Classification	CN Code	Threshold level
Sulphuric acid ...%	7664-93-9	9	Category 3	2807 00 00	

## 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.

## UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Name of substance	CAS No	Listed in	HS code
Sulphuric acid ...%	7664-93-9	Table II	2807.00

## National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Country	Inventory	Status
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not 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	not all ingredients are listed

### Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSC	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.

## SECTION 16: Other information

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

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1		Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table)	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Oxalic acid dihydrate	Hazardous ingredients for labelling: Oxalic acid dihydrate, Sulphuric acid ...%	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2	contains: Oxalic acid dihydrate	contains: Oxalic acid dihydrate, Sulphuric acid ...%	yes
14.1	UN number or ID number: not subject to transport regulations	UN number or ID number	yes
14.1		ADR: UN 3264	yes

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.1		IMDG-Code: UN 3264	yes
14.1		ICAO-TI: UN 3264	yes
14.2	UN proper shipping name: not assigned	UN proper shipping name	yes
14.2		ADR: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	yes
14.2		IMDG-Code: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	yes
14.2		ICAO-TI: Corrosive liquid, acidic, inorganic, n.o.s.	yes
14.2		Technical name (hazardous ingredients): Sulphuric acid ...%	yes
14.3	Transport hazard class(es): none	Transport hazard class(es)	yes
14.3		ADR: 8	yes
14.3		IMDG-Code: 8	yes
14.3		ICAO-TI: 8	yes
14.4	Packing group: not assigned	Packing group	yes
14.4		ADR: II	yes
14.4		IMDG-Code: II	yes
14.4		ICAO-TI: II	yes
14.6	Special precautions for user: There is no additional information.	Special precautions for user: Provisions for dangerous goods (ADR) should be complied within the premises.	yes
14.8	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information: Not subject to ADR, RID and ADN.	Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information	yes
14.8		Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	yes
14.8		Particulars in the transport document: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (contains: Sulphuric acid ...%), 8, II, (E)	yes
14.8		Classification code: C1	yes
14.8		Danger label(s): 8	yes

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.8		Danger label(s): change in the listing (table)	yes
14.8		Special provisions (SP): 274	yes
14.8		Excepted quantities (EQ): E2	yes
14.8		Limited quantities (LQ): 1 L	yes
14.8		Transport category (TC): 2	yes
14.8		Tunnel restriction code (TRC): E	yes
14.8		Hazard identification No: 80	yes
14.8	International Maritime Dangerous Goods Code (IMDG) - Additional information: Not subject to IMDG.	International Maritime Dangerous Goods Code (IMDG) - Additional information	yes
14.8		Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	yes
14.8		Particulars in the shipper's declaration: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (contains: Sulphuric acid ...%), 8, II	yes
14.8		Marine pollutant: -	yes
14.8		Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8		Special provisions (SP): 274	yes
14.8		Excepted quantities (EQ): E2	yes
14.8		Limited quantities (LQ): 1 L	yes
14.8		EmS: F-A, S-B	yes
14.8		Stowage category: B	yes
14.8		Segregation group: 1 - Acids	yes
14.8	International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information: Not subject to ICAO-IATA.	International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information	yes
14.8		Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s.	yes

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.8		Particulars in the shipper's declaration: UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (contains: Sulphuric acid ...%), 8, II	yes
14.8		Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8		Special provisions (SP): A3	yes
14.8		Excepted quantities (EQ): E2	yes
14.8		Limited quantities (LQ): 0,5 L	yes
15.1		Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table)	yes
15.1	VOC content: 4,2 % 2.097 g/l	VOC content: 4,2 % 510,7 g/l	yes
15.1	Water Framework Directive (WFD): none of the ingredients are listed	Water Framework Directive (WFD)	yes
15.1		List of pollutants (WFD): change in the listing (table)	yes
15.1	Regulation on the marketing and use of explosives precursors: none of the ingredients are listed	Regulation on the marketing and use of explosives precursors	yes
15.1		Explosives precursors which are subject to restrictions: change in the listing (table)	yes
15.1		Additional statements: If the product is passed on to third parties, in accordance with Article 7 "Notification of the supply chain" of Regulation EU 2019/1148, the information obligation is subject to the entire supply chain and all other provisions mentioned in Article 7 on restricted and regulated raw materials. -	yes
15.1	Regulation on drug precursors: none of the ingredients are listed	Regulation on drug precursors	yes
15.1		Regulation on drug precursors: change in the listing (table)	yes
15.1		UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances	yes
15.1		UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances: change in the listing (table)	yes
15.1		National inventories: change in the listing (table)	yes

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: CN59

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
2009/161/EU	Commission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAP. 424	Occupational Health and Safety Authority Act (CAP. 424)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CN Code	Combined Nomenclature
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
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
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
IARC	International Agency for Research on Cancer
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

# Safety data sheet

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



## Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N

article number: **CN59**

Abbr.	Descriptions of used abbreviations
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
Met. Corr.	Substance or mixture corrosive to metals
NLP	No-Longer Polymer
NTP-RoC	National Toxicology Program: Report on Carcinogens
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

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

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

# Safety data sheet

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



**Oxalic acid solution ROTI®Volum ROTI®VOLUM 0,05 mol/l - 0,1 N**

article number: **CN59**

Code	Text
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.