

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Carrez II solution

Revision: 22.07.2024

Product code: AC12.01568

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

### 1.1. Product identifier

Carrez II solution

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

#### Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

#### Uses advised against

Do not use for private purposes (household).

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

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

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: P-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

#### Supplier or manufacturer details

Company name: AnalytiChem GmbH  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
E-mail: info@analytichem.de  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.de  
Responsible Department: AnalytiChem  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

### 1.4. Emergency telephone

#### number:

+353 1 901 4670 (CHEMTREC)

#### Further Information

This product is a mixture. REACH Registration Number see section 3.

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## SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

Eye Dam. 1; H318  
 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

## Regulation (EC) No 1272/2008

## Hazard components for labelling

Zinc acetate dihydrate

Signal word: Danger

Pictograms:



## Hazard statements

H318 Causes serious eye damage.  
 H412 Harmful to aquatic life with long lasting effects.

## Precautionary statements

P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

3.2. Mixtures

## Chemical characterization

Mixtures in aqueous solution

## Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
5970-45-6	Zinc acetate dihydrate			20 - < 25 %
	209-170-2		01-2120119383-62	
	Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 2; H302 H318 H411			

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
5970-45-6	209-170-2	Zinc acetate dihydrate	20 - < 25 %
	oral: LD50 = 2060 mg/kg		

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#### Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

No data available

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Risk of serious damage to eyes.

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

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

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

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Metal oxide smoke, toxic

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

#### Additional information

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

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

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#### For non-emergency personnel

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Consult an expert
- Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

##### For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

##### Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

- If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Provide adequate ventilation.
- Avoid contact with skin, eyes and clothes.

##### Advice on protection against fire and explosion

Usual measures for fire prevention.

##### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

##### Further information on handling

- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed.

##### Hints on joint storage

national regulations

##### Further information on storage conditions

Keep container dry.

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

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
5970-45-6	Zinc acetate dihydrate			
Worker DNEL, long-term		dermal	systemic	1,338 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,16 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	0,669 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,669 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	4,71 mg/m <sup>3</sup>

##### PNEC values

CAS No	Substance	Value
5970-45-6	Zinc acetate dihydrate	
Freshwater		0,002 mg/l
Freshwater (intermittent releases)		0,021 mg/l
Marine water		0 mg/l
Freshwater sediment		0,008 mg/kg
Marine sediment		0,001 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,009 mg/l
Soil		0 mg/kg

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection:

Face protection shield

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goggles.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

#### By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

#### By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. In case of inadequate ventilation wear respiratory protection.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid
Colour:	colourless
Odour:	odourless
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not determined
Auto-ignition temperature:	No data available

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Decomposition temperature:	not determined
pH-Value:	No data available
Viscosity / kinematic:	No data available
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	No data available
Bulk density:	No data available
Relative vapour density:	not determined

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties	
No data available	
Sustained combustibility:	
Self-ignition temperature	No data available
Solid:	not applicable
Gas:	not applicable

Oxidizing properties
No data available

#### Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	not determined
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

#### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

No data available

### 10.6. Hazardous decomposition products

In case of fire may be liberated:

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#### SECTION 5: Firefighting measures

##### Further information

No data available

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5970-45-6	Zinc acetate dihydrate				
	oral	LD50 mg/kg	2060	Rat	Publication (1969) OECD Guideline 423

#### Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

No data available

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

No data available

#### Practical experience

No data available

### 11.2. Information on other hazards

#### Other information

No data available

##### Further information

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

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Harmful to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
5970-45-6	Zinc acetate dihydrate					
	Acute algae toxicity	ErC50 2,1 mg/l	72 h	Chlorella pyrenoidosa, Cyclotella meneghiniana, Ulo	Publication (1982)	OECD Guideline 201
	Acute crustacea toxicity	EC50 3,72 mg/l	48 h	Daphnia magna	Study report (2004)	OECD Guideline 202
	Acute bacteria toxicity	EC50 >= 5,926 mg/l ( )	3 h		Read-across (1983)	Read-across approach from experimental d

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
5970-45-6	Zinc acetate dihydrate	-1,28

**BCF**

CAS No	Chemical name	BCF	Species	Source
5970-45-6	Zinc acetate dihydrate	3,162		Calculation (2010)

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

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#### Land transport (ADR/RID)

**14.1. UN number or ID number:**

**14.2. UN proper shipping name:**

**14.3. Transport hazard class(es):**

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:**

**14.2. UN proper shipping name:**

**14.3. Transport hazard class(es):**

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

**14.1. UN number or ID number:**

**14.2. UN proper shipping name:**

**14.3. Transport hazard class(es):**

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:**

**14.2. UN proper shipping name:**

**14.3. Transport hazard class(es):**

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Water hazard class (D):

3 - highly hazardous to water

### 15.2. Chemical safety assessment

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

## SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 9,12.

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#### Abbreviations and acronyms

Acute Tox. 4: Acute toxicity, hazard category 4  
Eye Dam. 1: Serious eye damage, hazard category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 3; H412	Calculation method

#### Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

#### Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*