

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

Revision date: 05.06.2024

Product code: 11757

Page 1 of 10

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

##### 1.1. Product identifier

Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

UFI: MDJ1-T1R9-C00C-XMQ

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

###### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### Uses advised against

Do not use for private purposes (household).

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

Company name: AnalytiChem GmbH  
ACD

Street: Stempelstraße 6

Place: D-47167 Duisburg

Telephone: 0203/5194-0

Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit

Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

##### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

##### Further Information

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

#### SECTION 2: Hazards identification

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

###### Regulation (EC) No 1272/2008

Skin Corr. 1B; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### Regulation (EC) No 1272/2008

###### Hazard components for labelling

bis(ethylenediamine)copper dihydroxide

Signal word: Danger

Pictograms:



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord**

Revision date: 05.06.2024

Product code: 11757

Page 2 of 10

**Hazard statements**

H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P311 IF exposed or concerned: 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)			
14552-35-3	bis(ethylenediamine)copper dihydroxide			20 - < 25 %
	238-597-7			
	Acute Tox. 4, Skin Corr. 1B; H302 H314			

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		
14552-35-3	238-597-7	bis(ethylenediamine)copper dihydroxide	20 - < 25 %
	oral: ATE = 500 mg/kg		

**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.  
Call a physician immediately.

**After contact with skin**

Wash immediately with: Water / Polyethylene glycol 400  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

**After contact with eyes**

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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

Revision date: 05.06.2024

Product code: 11757

Page 3 of 10

Remove contact lenses, if present and easy to do. Continue rinsing.  
Protect uninjured eye.

#### **After ingestion**

Rinse mouth immediately and drink plenty of water.  
Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.  
Call a physician immediately.

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

Causes burns.  
Irritant  
Cough  
Dyspnoea

#### **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:  
Nitrogen oxides (NO<sub>x</sub>)

### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

#### **Additional information**

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**

#### **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**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

Revision date: 05.06.2024

Product code: 11757

Page 4 of 10

#### 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

- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Use personal protection equipment.
- Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
- Do not breathe vapour/aerosol.

#### Advice on protection against fire and explosion

- Usual measures for fire prevention.

#### Advice on general occupational hygiene

- Keep away from food, drink and animal feedingstuffs. 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. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

#### 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.

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

#### Requirements for storage rooms and vessels

- Protect against:
  - Light
  - Air
- Keep under Nitrogen (inert gas to be specified by the manufacturer).

#### Further information on storage conditions

- Keep container tightly closed.
- storage temperature +15°C - +25°C

### 7.3. Specific end use(s)

- Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

Revision date: 05.06.2024

Product code: 11757

Page 5 of 10

#### 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.

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

##### Eye/face protection

goggles

Wear eye/face protection.

##### Hand protection

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

By long-term hand contact

Recommended glove articles: KCL 897 Butoject®

Recommended material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 720 Camapren®

Recommended material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with occasional contact (splashes): > 60 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. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

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.

##### 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.

##### 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:	blue	
Odour:	like: Amines	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord**

Revision date: 05.06.2024

Product code: 11757

Page 6 of 10

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 20 °C):	12 - 12,5
Viscosity / kinematic:	No data available
Water solubility:	completely miscible
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	1,10387 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
Oxidizing	

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	0
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**

Protect against:  
Light

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord**

Revision date: 05.06.2024

Product code: 11757

Page 7 of 10

Air

**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:  
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**

**Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

**Acute toxicity**

Based on available data, the classification criteria are not met.  
If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

**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
14552-35-3	bis(ethylenediamine)copper dihydroxide				
	oral	ATE 500 mg/kg			

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.  
Serious eye damage/eye irritation: Causes serious eye damage.  
Risk of serious damage to eyes.

**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.

**Information on likely routes of exposure**

There are no data available on the preparation/mixture itself.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord

Revision date: 05.06.2024

Product code: 11757

Page 8 of 10

#### Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

#### Additional information on tests

There are no data available on the preparation/mixture itself.

#### Practical experience

There are no data available on the preparation/mixture itself.

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

##### Other information

There are no data available on the preparation/mixture itself.

#### Further information

Causes burns.  
Irritant  
Cough  
Dyspnoea

## SECTION 12: Ecological information

#### 12.1. Toxicity

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

#### 12.2. Persistence and degradability

There are no data available on the mixture itself.

#### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

#### 12.4. Mobility in soil

There are no data available on the mixture itself.

#### 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.  
Do not empty into drains.

##### 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.  
Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose  
accord**

Revision date: 05.06.2024

Product code: 11757

Page 9 of 10

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 1761  
**14.2. UN proper shipping name:** CUPRIETHYLENEDIAMINE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8+6.1  
 Classification code: CT1  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 86  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1761  
**14.2. UN proper shipping name:** CUPRIETHYLENEDIAMINE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8+6.1  
 Classification code: CT1  
 Special Provisions: 802  
 Limited quantity: 1 L  
 Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1761  
**14.2. UN proper shipping name:** CUPRIETHYLENEDIAMINE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8+6.1  
 Marine pollutant: P  
 Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

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

**14.1. UN number or ID number:** UN 1761  
**14.2. UN proper shipping name:** CUPRIETHYLENEDIAMINE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8+6.1  
 Special Provisions: A3 A803  
 Limited quantity Passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855  
 IATA-max. quantity - Cargo: 30 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) ethylenediamine solution 1 mol/l - 3 N solution for testing viscosity of cellulose accord**

Revision date: 05.06.2024

Product code: 11757

Page 10 of 10

Danger releasing substance: bis(ethylenediamine)copper dihydroxide

**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**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 1,12.

**Abbreviations and acronyms**

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Eye Dam: Eye damage

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

Classification	Classification procedure
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method

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

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.

**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 information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.  
 The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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