

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Fehling's reagent I, 100 ml**

Print date: 14.04.2015

Product code: 9991339

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Fehling's reagent I, 100 ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: N - Dangerous for the environment

R phrases:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Hazard categories:

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Very toxic to aquatic life with long lasting effects.

**2.2. Label elements**

Signal word: Warning  
Pictograms: GHS09

**Hazard statements**

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P273 Avoid release to the environment.

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#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

###### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
231-847-6	copper sulphate	5 - < 10 %
7758-98-7	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-36/38-50-53	
029-004-00-0	Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H302 H319 H315 H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

###### After inhalation

Provide fresh air.

###### After contact with skin

Wash with plenty of water. Change contaminated clothing.

###### After contact with eyes

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

###### After ingestion

Rinse mouth immediately and drink plenty of water.

##### 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.

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

The product itself does not burn.

##### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

###### Additional information

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

#### SECTION 6: Accidental release measures

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

Wear personal protection equipment. Avoid generation of dust. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation. Remove persons to safety. Do not breathe dust.

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#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.

### 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.

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

Only use the material in places where open light, fire and other flammable sources can be kept away.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

##### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN):  
DIN EN 166

##### **Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

##### **Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

##### **Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

### SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	light blue
Odour:	No data available

#### **Test method**

pH-Value:	No data available
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##### **Changes in the physical state**

Melting point:	000000 °C
Initial boiling point and boiling range:	No data available
Sublimation point:	No data available

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Softening point: No data available

Flash point: No data available

#### Flammability

Solid: No data available

Gas: No data available

Lower explosion limits: No data available

Upper explosion limits: No data available

Ignition temperature: No data available

#### Auto-ignition temperature

Solid: No data available

Gas: No data available

Vapour pressure: No data available

Vapour pressure: No data available

Density: No data available

Water solubility: No data available

Partition coefficient: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: No data available

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: No data available

#### 9.2. Other information

Solid content: No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 10.5. Incompatible materials

Oxidizing agents, strong.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

Toxicological data are not available.

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#### Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
7758-98-7	copper sulphate				
	oral	LD50	300 mg/kg	Ratte	

#### Irritation and corrosivity

No data available

#### Sensitising effects

No data available

#### Severe effects after repeated or prolonged exposure

No data available

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

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

#### Practical experience

#### Observations relevant to classification

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
7758-98-7	copper sulphate					
	Acute fish toxicity	LC50	0,11 mg/l	96 h	Onchorhynchus mykiss	

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

No data available

#### Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

## SECTION 13: Disposal considerations

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**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number:** UN3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
Hazard label: 9  
Classification code: M6  
Special Provisions: 274 335 601  
Limited quantity: 5 L  
Transport category: 3  
Hazard No: 90  
Tunnel restriction code: E

**Other applicable information (land transport)**

E1

**Inland waterways transport (ADN)**

**14.1. UN number:** UN3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
Hazard label: 9  
Classification code: M6  
Special Provisions: 274 335 601  
Limited quantity: 5 L

**Other applicable information (inland waterways transport)**

E1

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#### Marine transport (IMDG)

<b>14.1. UN number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Special Provisions:	274, 335
Limited quantity:	5 L
EmS:	F-A, S-F

#### Other applicable information (marine transport)

E1

#### Air transport (ICAO)

<b>14.1. UN number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Special Provisions:	A97 A158
Limited quantity Passenger:	30 kg G
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

#### Other applicable information (air transport)

E1

: Y964

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

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

##### National regulatory information

Water contaminating class (D): 3 - highly water contaminating

### SECTION 16: Other information

#### Relevant R-phrases (Number and full text)

22	Harmful if swallowed.
36/38	Irritating to eyes and skin.
50	Very toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.

#### Relevant H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

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H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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