

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Benedict's reagent for microscopy, 500 ml**

Print date: 15.04.2015

Product code: 9992028

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

Benedict's reagent for microscopy, 500 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: Xi - Irritant  
R phrases:  
Irritating to eyes.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Hazard categories:  
Serious eye damage/eye irritation: Eye Irrit. 2  
Hazardous to the aquatic environment: Aquatic Chronic 3  
Hazard Statements:  
Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

Signal word: Warning  
Pictograms: GHS07

**Hazard statements**

H319 Causes serious eye irritation.

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H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P273 Avoid release to the environment.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 2.3. Other hazards

No information available.

### 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		
207-838-8	sodium carbonate	10 - < 15 %
497-19-8	Xi - Irritant R36	
011-005-00-2	Eye Irrit. 2; H319	
231-847-6	copper sulphate	1 - < 5 %
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

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

##### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

##### After ingestion

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

### 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

Non-flammable.

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

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

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. 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**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **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.

#### **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**

No special measures are necessary.

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

No special fire protection measures are necessary.

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

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

Keep container tightly closed.

##### **Advice on storage compatibility**

No special measures are necessary.

##### **Further information on storage conditions**

Store in a cool dry place.

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

none

### **SECTION 8: Exposure controls/personal protection**

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

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

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

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.

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

Suitable eye protection: 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

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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.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### SECTION 9: Physical and chemical properties

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

Physical state: liquid  
 Colour: colourless

#### Test method

pH-Value: not determined

#### Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: not determined

Flash point: not determined

#### Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

#### Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

#### Oxidizing properties

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

#### Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

#### 9.2. Other information

Solid content: not determined

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

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No known hazardous reactions.

#### 10.4. Conditions to avoid

none

#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
497-19-8	sodium carbonate				
	oral	LD50	4090 mg/kg	Ratte	
7758-98-7	copper sulphate				
	oral	LD50	300 mg/kg	Ratte	

##### Additional information on tests

This mixture is classified as hazardous according to 1999/45/EC.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Harmful 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
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50	300 mg/l	96 h	Lepomis macrochirus	
	Acute crustacea toxicity	EC50	265 mg/l	48 h	Daphnia magna	
7758-98-7	copper sulphate					
	Acute fish toxicity	LC50	0,11 mg/l	96 h	Onchorhynchus mykiss	

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

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

The product has not been tested.

#### 12.6. Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### 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. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### 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:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Air transport (ICAO)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

To follow: 850/2004/EC , 79/117/EEC , 689/2008/EC

##### National regulatory information

Employment restrictions: Observe employment restrictions for young people.

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Water contaminating class (D): 2 - water contaminating

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Abbreviations and acronyms**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%

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

- |       |   |
|-------|---|
| 22    | Harmful if swallowed.   |
| 36    | Irritating to eyes.   |
| 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.                        |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects.    |

**Further Information**

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