

#### according to Regulation (EC) No 1907/2006

| Crystal violet, 5 g                      |  |                                 |             |  |  |
|--|--|---------------------------------|-------------|--|--|
| Print date: 14.04.2015                   | Product code: 9991363                      |                                 | Page 1 of 8 |  |  |
| SECTION 1: Identification of the s       | ubstance/mixture and of the company/       | undertaking                     |             |  |  |
| 1.1. Product identifier                  |  |                                 |             |  |  |
| Crystal violet, 5 g                      |  |                                 |             |  |  |
| CAS No:                                  | 548-62-9                                   |                                 |             |  |  |
| Index No:                                | 612-204-00-2                               |                                 |             |  |  |
| EC No:                                   | 208-953-6                                  |                                 |             |  |  |
| 1.2. Relevant identified uses of the su  | ibstance or mixture and uses advised again | nst                             |             |  |  |
| Use of the substance/mixture             |  |                                 |             |  |  |
| Laboratory chemicals                     |  |                                 |             |  |  |
| 1.3. Details of the supplier of the safe | ty 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                 | +49 (0)681 302-71232                       |                                 |             |  |  |
| number:                                  |  |                                 |             |  |  |

### **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: C3 - Carc. Cat. 3, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R phrases: Limited evidence of a carcinogenic effect. Harmful if swallowed. Risk of serious damage to eyes. Very 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: Carcinogenicity: Carc. 2 Acute toxicity: Acute Tox. 4 Serious eye damage/eye irritation: Eye Dam. 1 Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1) Hazard Statements: Suspected of causing cancer. Harmful if swallowed. Causes serious eye damage. Very toxic to aquatic life.



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| Very toxic to   | aquatic life with long lasting effects.  |           |
| .2. Label elements  |  |           |
|   | which must be listed on the label<br>imethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride,<br>iolet 3  |           |
| Signal word:  | Danger   |           |
| Pictograms:   | GHS05-GHS07-GHS08-GHS09  |           |
|   |  |           |
| Hazard statements   |  |           |
| Hazard statements<br>H302   | Harmful if swallowed.  |           |
|   | Harmful if swallowed.<br>Causes serious eye damage.  |           |
| H302<br>H318<br>H351  |  |           |
| H302<br>H318  | Causes serious eye damage.   |           |
| H302<br>H318<br>H351  | Causes serious eye damage.<br>Suspected of causing cancer.<br>Very toxic to aquatic life with long lasting effects.  |           |
| H302<br>H318<br>H351<br>H410<br><b>Precautionary statemen</b><br>P273         | Causes serious eye damage.<br>Suspected of causing cancer.<br>Very toxic to aquatic life with long lasting effects.  |           |
| H302<br>H318<br>H351<br>H410<br><b>Precautionary statemen</b><br>P273<br>P280 | Causes serious eye damage.<br>Suspected of causing cancer.<br>Very toxic to aquatic life with long lasting effects.<br>ts<br>Avoid release to the environment.<br>Wear protective gloves/protective clothing/eye protection/face protection.   |           |
| H302<br>H318<br>H351<br>H410<br><b>Precautionary statemen</b><br>P273         | Causes serious eye damage.<br>Suspected of causing cancer.<br>Very toxic to aquatic life with long lasting effects.<br><b>ts</b><br>Avoid release to the environment.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if<br>present and easy to do. Continue rinsing. |           |
| H302<br>H318<br>H351<br>H410<br><b>Precautionary statemen</b><br>P273<br>P280 | Causes serious eye damage.<br>Suspected of causing cancer.<br>Very toxic to aquatic life with long lasting effects.<br>ts<br>Avoid release to the environment.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if   |           |

### 2.3. Other hazards

No information available.

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

#### 3.1. Substances

| Sum formula:      | C25H30CIN3 |
|-------------------|------------|
| Molecular weight: | MW: 407,98 |

#### 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]   |          |
| 208-953-6    | 208-953-6<br>4-[4,4'-bis(dimethylamino)<br>benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride, C.I. Basic<br>Violet 3 |          |
| 548-62-9     | Carc. Cat. 3, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R40-22-41-50-53  |          |
| 612-204-00-2 | Carc. 2, Acute Tox. 4, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H351 H302 H318 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.



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#### After contact with skin

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

#### 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.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

#### 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.

## 5.3. Advice for firefighters

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

## 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. Avoid generation of dust. Do not breathe dust. 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

Take up mechanically. 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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

#### 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.



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#### 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

#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

#### 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 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.

#### Skin protection

Physical state:

Wear suitable protective clothing.

## **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

solid

### **SECTION 9: Physical and chemical properties**

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

| Colour:                                  | dark green     |             |
|--|----------------|-------------|
|  |                | Test method |
| pH-Value (at 20 °C):                     | 3              | 10 g/l      |
| Changes in the physical state            |                |             |
| Melting point:                           | 205 °C         |             |
| Initial boiling point and boiling range: | not determined |             |
| Flash point:                             | not applicable |             |
| Flammability                             |                |             |
| Solid:                                   | not determined |             |
| Gas:                                     | not applicable |             |
| Lower explosion limits:                  | not determined |             |
| Upper explosion limits:                  | not determined |             |
| Auto-ignition temperature                |                |             |



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| Solid:<br>Gas:                                 | not determined<br>not applicable |             |  |  |  |
| Decomposition temperature:                     | not determined                   |             |  |  |  |
| Oxidizing properties<br>Not oxidizing.         |                                  |             |  |  |  |
| Vapour pressure:                               | not determined                   |             |  |  |  |
| Density (at 20 °C):                            | 1,19 g/cm³                       |             |  |  |  |
| Water solubility:<br>(at 27 °C)                | 50 g/L                           |             |  |  |  |
| Solubility in other solvents<br>not determined |                                  |             |  |  |  |
| Partition coefficient:                         | 1,172                            |             |  |  |  |
| 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

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 |
| 548-62-9 | 4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride, C.I. Basic Violet 3 |        |           |         |        |
|          | oral   | ATE    | 500 mg/kg |         |        |

#### Additional information on tests

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

## SECTION 12: Ecological information

## 12.1. Toxicity



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

## 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**

#### 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)

| <u>14.1. UN number:</u>                         | UN 3077  |
|---|--|
| 14.2. UN proper shipping name:                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| 14.3. Transport hazard class(es):               | 9  |
| 14.4. Packing group:                            | III  |
| Hazard label:                                   | 9  |
| Classification code:                            | M7   |
| Special Provisions:                             | 274 335 601  |
| Limited quantity:                               | 5 kg   |
| Transport category:                             | 3  |
| Hazard No:                                      | 90   |
| Tunnel restriction code:                        | E  |
| Other applicable information (land trans)<br>E1 | port)  |
| Inland waterways transport (ADN)                |  |
| <u>14.1. UN number:</u>                         | UN 3077  |
| 14.2. UN proper shipping name:                  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| 14.3. Transport hazard class(es):               | 9  |
| 14.4. Packing group:                            | III  |
| Hazard label:                                   | 9  |
| Classification code:                            | M7   |
| Special Provisions:                             | 274 335 601  |
| Limited quantity:                               | 5 kg   |



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| Other applicable information (inland w E1                             | aterways transport)  |             |
| Marine transport (IMDG)   |  |             |
| <u>14.1. UN number:</u>   | UN 3077  |             |
| 14.2. UN proper shipping name:  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.   |             |
| 14.3. Transport hazard class(es):                                     | 9  |             |
| 14.4. Packing group:  | III  |             |
| Hazard label:   | 9  |             |
| Special Provisions:<br>Limited quantity:                              | 274, 335, 966, 967<br>5 kg   |             |
| EmS:  | F-A, S-F   |             |
| Other applicable information (marine t<br>E1                          | ransport)  |             |
| Air transport (ICAO)  |  |             |
| <u>14.1. UN number:</u>   | UN 3077  |             |
| 14.2. UN proper shipping name:  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.   |             |
| 14.3. Transport hazard class(es):                                     | 9  |             |
| 14.4. Packing group:  | III  |             |
| Hazard label:   | 9  |             |
| Special Provisions:<br>Limited quantity Passenger:                    | A97 A158 A179<br>30 kg G   |             |
| IATA-packing instructions - Passenger:                                | 956<br>400 hr  |             |
| IATA-max. quantity - Passenger:<br>IATA-packing instructions - Cargo: | 400 kg<br>956  |             |
| IATA-max. quantity - Cargo:   | 400 kg   |             |
| Other applicable information (air trans<br>E1<br>: Y956               | port)  |             |
| 14.5. Environmental hazards   |  |             |
| ENVIRONMENTALLY HAZARDOUS:  | yes  |             |
| <u>14.6. Special precautions for user</u>                             | ycs  |             |
| No information available.   |  |             |
| 14.7. Transport in bulk according to Anne                             | x II of MARPOL73/78 and the IBC Code   |             |
| not applicable  |  |             |
| SECTION 15: Regulatory information                                    |  |             |
|   | gulations/legislation specific for the substance or mixture  |             |
| EU regulatory information   |  |             |
| Additional information<br>To follow: 850/2004/EC, 79                  | 0/117/EEC , 689/2008/EC  |             |
| National regulatory information                                       |  |             |
| Employment restrictions:  | Observe employment restrictions for young people. Observe employme restrictions for child bearing mothers and nursing. | ent         |
| Water contaminating class (D):  | 3 - highly water contaminating   |             |
| 15.2. Chemical safety assessment                                      |  |             |
| For this substance a chemi  | cal safety assessment has not been carried out.  |             |



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#### **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.
- 40 Limited evidence of a carcinogenic effect.
- 41 Risk of serious damage to eyes.
- 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.
- H318 Causes serious eye damage.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H410 Very toxic 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.