

|               |                       |                      |              |            |
|---------------|-----------------------|----------------------|--------------|------------|
| Trading name: | <b>BLUING REAGENT</b> |                      |              |            |
| Product code: | BR-OT-X**             | Date of compilation: | 04 June 2019 | Version: 4 |

| SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING |                                                                               |                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1.                                                                             | Product identifier                                                            |                                                                                                                                                                                                               |
|                                                                                  | Trading name:                                                                 | BLUING REAGENT                                                                                                                                                                                                |
|                                                                                  | Chemical name:                                                                | -                                                                                                                                                                                                             |
|                                                                                  | Catalogue number:                                                             | BR-OT-X**                                                                                                                                                                                                     |
| 1.2.                                                                             | Relevant identified uses of the substance or mixture and uses advised against |                                                                                                                                                                                                               |
|                                                                                  | Uses:                                                                         | Reagent for conversion of red hematoxylin-stained nuclei to blue.                                                                                                                                             |
|                                                                                  | Uses advised against:                                                         | Only the identified uses are advised.                                                                                                                                                                         |
|                                                                                  | Reason why uses advised against:                                              | The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes |
| 1.3.                                                                             | Details of the supplier of the safety data sheet                              |                                                                                                                                                                                                               |
|                                                                                  | Supplier:                                                                     | BioGnost Ltd.                                                                                                                                                                                                 |
|                                                                                  | Address:                                                                      | Medjugorska 59, Zagreb                                                                                                                                                                                        |
|                                                                                  | Telephone number:                                                             | +385 1 2409997                                                                                                                                                                                                |
|                                                                                  | Fax no.:                                                                      | +385 1 2404039                                                                                                                                                                                                |
|                                                                                  | e-mail of competent person:                                                   | <a href="mailto:msds@biognost.hr">msds@biognost.hr</a>                                                                                                                                                        |
|                                                                                  | National contact:                                                             | -                                                                                                                                                                                                             |
| 1.4.                                                                             | Emergency telephone number                                                    |                                                                                                                                                                                                               |
|                                                                                  | National Protection and Rescue Directorate:                                   | 112                                                                                                                                                                                                           |
|                                                                                  | Medical information:                                                          | +385 1 2348 342                                                                                                                                                                                               |
|                                                                                  | Other information:                                                            | -                                                                                                                                                                                                             |

| SECTION 2 HAZARDS INFORMATION                                      |                                                             |                     |
|--------------------------------------------------------------------|-------------------------------------------------------------|---------------------|
| 2.1.                                                               | Classification of the substance or mixture                  |                     |
| 2.1.1.                                                             | Classification (REGULATION (EC) No. 1272/2008 (CLP)         |                     |
|                                                                    | Hazard class and category code:                             | Hazard statements*: |
|                                                                    | Not identified as hazardous substance.                      | -                   |
| 2.1.2.                                                             | Additional information                                      |                     |
|                                                                    | -                                                           |                     |
| *For full text of Hazard- and EU Hazard-statements: see Section 16 |                                                             |                     |
| 2.2.                                                               | Classification according to EC Directive Nr. 1272/2008 CLP) |                     |
|                                                                    | Product identification:                                     | BLUING REAGENT      |
|                                                                    | Identification number:                                      | -                   |
|                                                                    | Authorization no.:                                          | -                   |
|                                                                    | Hazard pictograms:                                          | -                   |
|                                                                    | Signal word:                                                | -                   |

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|      | Hazard statements:        | - |
|      | Precautionary statements: | - |
|      | Further information:      | - |
| 2.3. | Other hazards             |   |
|      | -                         |   |

| SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS |                          |                                |                                     |                                                                      |
|--------------------------------------------------|--------------------------|--------------------------------|-------------------------------------|----------------------------------------------------------------------|
| CAS/<br>EC/<br>Index no.                         | REACH<br>Registration No | Weight % content<br>(or range) | Identification name                 | Classification according<br>to Regulation (EC) No<br>1272/2008 (CLP) |
| -                                                | -                        | -                              | Contains no hazardous<br>substances | -                                                                    |

| SECTION 4 FIRST AID MEASURES |                                                             |                                                                                                                                                                                                                                                   |
|------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.                         | Description of first aid measures                           |                                                                                                                                                                                                                                                   |
|                              | General notes:                                              | -                                                                                                                                                                                                                                                 |
|                              | Following inhalation:                                       | Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. If breathing becomes erratic or it stops, immediately apply artificial respiration (other than mouth-to-mouth) and contact a physician. |
|                              | Following skin contact:                                     | Remove contaminated clothing. Immediately wash with plenty of water and soap. Seek medical assistance if the symptoms of irritation remain.                                                                                                       |
|                              | Following eye contact:                                      | Rinse out with plenty of water with the eyelid held wide open using clean fingers. If the symptoms remain, immediately call a physician.                                                                                                          |
|                              | Following ingestion:                                        | Do not induce vomiting. Make the afflicted person drink a glass of water. If spontaneous vomiting occurs, wash the mouth with water, then make the person drink 100-200 ml of water and seek medical attention.                                   |
|                              | Self-protection of the first aider:                         | Treat symptomatically.                                                                                                                                                                                                                            |
| 4.2.                         | Most important symptoms and effects, both acute and delayed |                                                                                                                                                                                                                                                   |
|                              | Following inhalation:                                       | Inhalation of large amounts of vapors in inadequately ventilated perimeter may cause coughing, sneezing, headache and nausea.                                                                                                                     |
|                              | Following skin contact:                                     | Slight irritation. After short exposure, resorption effects are not likely. Long-term exposure may cause drying, cracking and tingling sensation of skin.                                                                                         |
|                              | Following eye contact:                                      | Direct eye contact may cause slight to moderate irritation, lacrimation and burning sensation.                                                                                                                                                    |

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|      | Following ingestion:                                                       | Swallowing may cause irritation of mucosa, tingling sensation in the mouth, burning sensation; higher levels of concentration may cause nausea, abdominal pain and vomiting. In case of vomiting, aspiration causes coughing, difficult breathing. Higher levels of concentration may cause suffocation. |
| 4.3. | Indication of any immediate medical attention and special treatment needed |                                                                                                                                                                                                                                                                                                          |
|      | -                                                                          |                                                                                                                                                                                                                                                                                                          |

| SECTION 5 FIREFIGHTING MEASURES |                                                                                                                                                                |                                                                                                             |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 5.1.                            | Extinguishing media                                                                                                                                            |                                                                                                             |
|                                 | Suitable extinguishing media:                                                                                                                                  | Small fire - water spray, dry powder, CO <sub>2</sub><br>Large fire - water spray or alcohol-resistant foam |
|                                 | Unsuitable extinguishing media:                                                                                                                                | No information available                                                                                    |
| 5.2.                            | Special hazards arising from the substance or mixture                                                                                                          |                                                                                                             |
|                                 | Hazardous combustion products:                                                                                                                                 | No information available                                                                                    |
| 5.3.                            | Advice for firefighters                                                                                                                                        |                                                                                                             |
|                                 | Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing. Cool closed containers exposed to fire with water spray or vapor. |                                                                                                             |
| 5.4.                            | Additional information                                                                                                                                         |                                                                                                             |
|                                 | Remove sources of heat and ignition.<br>Do not contaminate the environment with extinguishing media.                                                           |                                                                                                             |

| SECTION 6 ACCIDENTAL RELEASE MEASURES |                                                                                                                                                         |                                                                                                                                                          |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1.                                  | Personal precautions, protective equipment and emergency procedures                                                                                     |                                                                                                                                                          |
| 6.1.1.                                | For non-emergency personnel                                                                                                                             |                                                                                                                                                          |
|                                       | Protective equipment:                                                                                                                                   | Use personal protective equipment (see Section 8).                                                                                                       |
|                                       | Accident prevention methods:                                                                                                                            | Evacuate members of all non-essential personnel and those members without protective equipment. Remove all sources of sparks and ignition. Do not smoke. |
|                                       | Emergency procedures:                                                                                                                                   | Mark the area using proper signs.                                                                                                                        |
| 6.1.2.                                | For emergency responders:                                                                                                                               |                                                                                                                                                          |
|                                       | Wear protective equipment (see Section 8).                                                                                                              |                                                                                                                                                          |
| 6.2.                                  | Environmental precautions:                                                                                                                              |                                                                                                                                                          |
|                                       | Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112. |                                                                                                                                                          |
| 6.3.                                  | Methods and material for containment and cleaning up                                                                                                    |                                                                                                                                                          |
| 6.3.1.                                | Bundling, covering of drains; capping procedures:                                                                                                       | Sand or clay barriers.                                                                                                                                   |

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| 6.3.2. | Cleaning up:                | Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and involved materials with water. |
| 6.3.3. | Other information:          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.4.   | Reference to other sections |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|        | -                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| SECTION 7 HANDLING AN STORAGE |                                                                                                  |                                                                                                                                                                             |
|-------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1.                          | Precautions for safe handling                                                                    |                                                                                                                                                                             |
| 7.1.1.                        | Protection measures                                                                              |                                                                                                                                                                             |
|                               | Measures to prevent fire:                                                                        | Keep away from sources of heat and ignition. Do not smoke.                                                                                                                  |
|                               | Measures to prevent aerosol and dust generation:                                                 | Secure proper ventilation.                                                                                                                                                  |
|                               | Measures to protect the environment:                                                             | Prevent spilling into the sewage system and waterways.                                                                                                                      |
|                               | Other measures:                                                                                  | -                                                                                                                                                                           |
| 7.1.2.                        | Advice on general occupational hygiene:                                                          |                                                                                                                                                                             |
|                               | Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating. |                                                                                                                                                                             |
| 7.2.                          | Conditions for safe storage, including any incompatibilities                                     |                                                                                                                                                                             |
|                               | Technical measures and storage conditions:                                                       | Keep in tightly closed and upright set containers in a well ventilated storage rooms, and away from sources of heat, sunlight, and other incompatible substances.           |
|                               | Packaging materials:                                                                             | Manufacturer's original packaging.                                                                                                                                          |
|                               | Requirements for storage rooms and vessels:                                                      | Keep away from food and drink. Keep the containers tightly closed.                                                                                                          |
|                               | Advices for storage equipment:                                                                   | The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation. |
|                               | Further information on storage conditions:                                                       | Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 9). |
| 7.3.                          | Specific end use(s)                                                                              |                                                                                                                                                                             |
|                               | Recommendations:                                                                                 | -                                                                                                                                                                           |
|                               | Industrial sector specific solutions:                                                            | -                                                                                                                                                                           |

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| SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION                      |                    |                                                      |                      |                          |
|----------------------------------------------------------------------|--------------------|------------------------------------------------------|----------------------|--------------------------|
| 8.1.                                                                 | Control parameters |                                                      |                      |                          |
| Substance                                                            | CAS No             | Occupational exposure limit values/short term values |                      | Biological limit values  |
|                                                                      |                    | ppm                                                  | mg/m <sup>3</sup>    |                          |
| -                                                                    | -                  | -                                                    | -                    | No information available |
|                                                                      |                    |                                                      |                      |                          |
| Substance name:                                                      | -                  |                                                      |                      |                          |
| EC No:                                                               | -                  | CAS No:                                              | -                    |                          |
| DNEL                                                                 |                    |                                                      |                      |                          |
| Industrial                                                           |                    |                                                      |                      |                          |
| Route of exposure:                                                   | Acute effect local | Acute effect systemic                                | Chronic effect local | Chronic effect systemic  |
| Oral                                                                 | -                  | -                                                    | -                    | -                        |
| Inhalation                                                           | -                  | -                                                    | -                    | -                        |
| Dermal                                                               | -                  | -                                                    | -                    | -                        |
| Critical physical parameters: solubility, flammability, corrosivity: |                    |                                                      | -                    |                          |
| Consumer                                                             |                    |                                                      |                      |                          |
| Route of exposure:                                                   | Acute effect local | Acute effect systemic                                | Chronic effect local | Chronic effect systemic  |
| Oral                                                                 | -                  | -                                                    | -                    | -                        |
| Inhalation                                                           | -                  | -                                                    | -                    | -                        |
| Dermal                                                               | -                  | -                                                    | -                    | -                        |
| PNEC                                                                 |                    |                                                      |                      |                          |
| Environmental protection target                                      |                    | PNEC                                                 |                      |                          |
| Fresh water                                                          |                    | No information available                             |                      |                          |
| Freshwater sediments                                                 |                    | No information available                             |                      |                          |
| Marine water                                                         |                    | No information available                             |                      |                          |
| Marine sediments                                                     |                    | No information available                             |                      |                          |
| Food chain                                                           |                    | No information available                             |                      |                          |
| Microorganisms in sewage treatment                                   |                    | No information available                             |                      |                          |
| Soil (agricultural)                                                  |                    | No information available                             |                      |                          |
| Air                                                                  |                    | No information available                             |                      |                          |
|                                                                      |                    |                                                      |                      |                          |
| 8.2.                                                                 | Exposure controls  |                                                      |                      |                          |

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| 8.2.1.   | Engineering measures                                                           |                                                                                                                                                                                                      |
|          | Substance/mixture related measures to prevent exposure during identified uses: | Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.                                                                            |
|          | Structural measures to prevent exposure:                                       | No information available                                                                                                                                                                             |
|          | Organisational measures to prevent exposure:                                   | Organization of work in order to reduce other worker's influence during work process.                                                                                                                |
|          | Technical measures to prevent exposure:                                        | Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.                                                                                             |
| 8.2.2.   | Personal protection equipment                                                  |                                                                                                                                                                                                      |
| 8.2.2.1. | Eye and face protection:                                                       | Safety glasses that stick to face (preventing splashing) (EN 166) or visor.                                                                                                                          |
| 8.2.2.2. | Skin protection                                                                |                                                                                                                                                                                                      |
|          | Hand protection:                                                               | Protective gloves must be according to the EU Directive 2016/425/EEC and standard EN 374.<br>Glove material: nitrile rubber<br>Glove thickness: ≥0.50 mm<br>Break through time: >480 min             |
|          | Other skin protection:                                                         | Wear antistatic clothing made of natural fibers (such as cotton) with long sleeves (EN 13034), and shoes that cover the entire foot (EN 10335).                                                      |
| 8.2.2.3. | Respiratory protection:                                                        | Protective full face mask (EN 136) or half mask (EN 140) equipped with a filter for organic vapors, type "A" (boiling point >65°C) according to EN 14387) used when concentration levels exceed GVI. |
| 8.2.2.4. | Thermal hazards:                                                               | No information available                                                                                                                                                                             |
| 8.2.3.   | Environmental exposure controls                                                |                                                                                                                                                                                                      |
|          | Substance/mixture related measures to prevent exposure:                        | See Section 6                                                                                                                                                                                        |
|          | Structural measures to prevent exposure:                                       | Use modern equipment.                                                                                                                                                                                |
|          | Organisational measures to prevent exposure:                                   | Adapt the work process to the required working conditions of the workplace.                                                                                                                          |
|          | Technical measures to prevent exposure:                                        | See Section 6                                                                                                                                                                                        |

| SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES |                                                       |            |                          |
|--------------------------------------------|-------------------------------------------------------|------------|--------------------------|
| 9.1.                                       | Information on basic physical and chemical properties |            |                          |
|                                            |                                                       | Value      | Method                   |
|                                            | Physical state:                                       | liquid     | No information available |
|                                            | Color:                                                | colourless | No information available |

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|---------------------------------------------------|--------------------------|--------------------------|
| Odor:                                             | no odor                  | No information available |
| Odor threshold:                                   | No information available | No information available |
| pH:                                               | >8.0                     | No information available |
| Melting point / freezing point:                   | No information available | No information available |
| Initial boiling point and boiling range:          | No information available | No information available |
| Flash point:                                      | No information available | No information available |
| Evaporation rate:                                 | No information available | No information available |
| Flammability (solid, gas):                        | No information available | No information available |
| Upper/lower flammability or explosive limits:     | No information available | No information available |
| Vapor pressure:                                   | No information available | No information available |
| Vapor density:                                    | No information available | No information available |
| Relative density:                                 | No information available | No information available |
| Bulk density:                                     | No information available | No information available |
| Solubility(ies):                                  | Soluble in water (20 °C) | No information available |
| Partition coefficient: n-octanol/water (log Kow): | No information available | No information available |
| Auto-ignition temperature:                        | No information available | No information available |
| Decomposition temperature:                        | No information available | No information available |
| Viscosity:                                        | No information available | No information available |
| Explosive properties:                             | No information available | No information available |
| Oxidising properties:                             | No information available | No information available |
| 9.2.                                              | Other information        |                          |
|                                                   | -                        |                          |

| SECTION 10 STABILITY AND REACTIVITY |                                     |                                                                                          |
|-------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------|
| 10.1.                               | Reactivity:                         | See subsections 10.3 through 10.5.                                                       |
| 10.2.                               | Chemical stability:                 | The product is chemically stable under standard ambient conditions of storing and using. |
| 10.3.                               | Possibility of hazardous reactions: | No information available.                                                                |
| 10.4.                               | Conditions to avoid:                | No information available.                                                                |
| 10.5.                               | Incompatible materials:             | No information available.                                                                |
| 10.6.                               | Hazardous decomposition products:   | No information available.                                                                |

| SECTION 11 TOXICOLOGICAL INFORMATION |                                      |
|--------------------------------------|--------------------------------------|
| 11.1.                                | Information on toxicological effects |
|                                      | Acute toxicity:                      |

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| Route of exposure:   | Method                   | Species | Effective dose<br>LD <sub>50</sub> /LC <sub>50</sub> or<br>ATE <sub>mixture</sub> | Exposure time | Results |
|----------------------|--------------------------|---------|-----------------------------------------------------------------------------------|---------------|---------|
| Oral exposure:       | No information available | -       | LD <sub>50</sub>                                                                  | -             | -       |
| Dermal exposure:     | No information available | -       | LD <sub>50</sub>                                                                  | -             | -       |
| Inhalation exposure: | No information available | -       | LC <sub>50</sub>                                                                  | -             | -       |

**Specific target organ toxicity – single exposure (STOT SE):**

|                      | Specific effects         | Target organ             | Note |
|----------------------|--------------------------|--------------------------|------|
| Oral exposure:       | No information available | No information available | -    |
| Dermal exposure:     | No information available | No information available | -    |
| Inhalation exposure: | No information available | No information available | -    |

**Respiratory irritation:** No information available

**Irritation and corrosion**

|                  | Exposure time | Species | Evaluation | Method | Note |
|------------------|---------------|---------|------------|--------|------|
| Skin irritation: | -             | rabbit  | -          | -      | -    |
| Eye irritation:  | -             | rabbit  | -          | -      | -    |

**Sensitization**

|                      |                          |
|----------------------|--------------------------|
| Dermal exposure:     | No information available |
| Inhalation exposure: | No information available |

**Symptoms related to the physical, chemical and toxicological characteristics**

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Oral exposure:       | Swallowing may cause discomfort in abdomen and abdominal pains.               |
| Dermal exposure:     | Allergic persons may display irritation.                                      |
| Inhalation exposure: | Allergic persons may display irritation after prolonged or repeated exposure. |
| Eye exposure:        | May cause irritation.                                                         |

**Repeated dose toxicity (subacute, subchronic, chronic)**

|  | Dose | Exposure time | Species | Method | Evaluation | Note |
|--|------|---------------|---------|--------|------------|------|
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| Subacute oral         | No information available | No information available | No information available | No information available | No information available | - |
| Subacute dermal       | No information available | No information available | No information available | No information available | No information available | - |
| Subacute inhalation   | No information available | No information available | No information available | No information available | No information available | - |
| Subchronic oral       | No information available | No information available | No information available | No information available | No information available | - |
| Subchronic dermal     | No information available | No information available | No information available | No information available | No information available | - |
| Subchronic inhalation | No information available | No information available | No information available | No information available | No information available | - |
| Chronic oral          | No information available | No information available | No information available | No information available | No information available | - |
| Chronic dermal        | No information available | No information available | No information available | No information available | No information available | - |
| Chronic inhalation    | No information available | No information available | No information available | No information available | No information available | - |

Specific target organ toxicity – repeated exposure (STOT RE):

|                       | Specific effects         | Target organ             | Note |
|-----------------------|--------------------------|--------------------------|------|
| Subacute oral         | No information available | No information available | -    |
| Subacute dermal       | No information available | No information available | -    |
| Subacute inhalation   | No information available | No information available | -    |
| Subchronic oral       | No information available | No information available | -    |
| Subchronic dermal     | No information available | No information available | -    |
| Subchronic inhalation | No information available | No information available | -    |
| Chronic oral          | No information available | No information available | -    |
| Chronic dermal        | No information available | No information available | -    |
| Chronic inhalation    | No information available | No information available | -    |

CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)

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|       | Carcinogenicity:                             | Current studies on test animals did not indicate carcinogenic effects.    |
|       | Mutagenicity <i>in-vitro</i> :               | Current <i>in vitro</i> tests did not indicate mutagenic effects.         |
|       | Genotoxicity:                                | No information available                                                  |
|       | Mutagenicity <i>in-vivo</i> :                | Current <i>in vivo</i> tests did not indicate mutagenic effects.          |
|       | Germ cell mutagenicity:                      | No information available                                                  |
|       | Reproductive toxicity:                       | No toxicity on reproductive organs was determined in reproductive organs. |
|       | Summary of evaluation of the CMR properties: | -                                                                         |
| 11.2. | Practical experiences:                       |                                                                           |
|       | Remarks relevant for classification:         | No information available                                                  |
|       | Other remarks:                               | No information available                                                  |
| 11.3. | General notes:                               |                                                                           |
|       | -                                            |                                                                           |

| SECTION 12 ECOLOGICAL INFORMATION: |                  |               |                          |                          |                          |      |
|------------------------------------|------------------|---------------|--------------------------|--------------------------|--------------------------|------|
| 12.1.                              | Toxicity         |               |                          |                          |                          |      |
| Acute toxicity                     | Dose             | Exposure time | Species                  | Method                   | Evaluation               | Note |
| Fish                               | LC <sub>50</sub> | 96 hours      | No information available | No information available | -                        | -    |
| Crustacea:                         | EC <sub>50</sub> | 48 hours      | No information available | No information available | -                        | -    |
| Algae/aquatic plants               | IC <sub>50</sub> | 8 days        | No information available | No information available | -                        | -    |
| Microorganisms                     | LC <sub>50</sub> | 72 hours      | -                        | -                        | -                        | -    |
| Chronic toxicity                   | Dose             | Exposure time | Species                  | Method                   | Evaluation               | Note |
| Fish                               | LC <sub>50</sub> | 96 hours      | No information available | No information available | No information available | -    |
| Crustacea:                         | EC <sub>50</sub> | 48 hours      | No information available | No information available | No information available | -    |
| Algae/aquatic plants               | IC <sub>50</sub> | 72 hours      | No information available | No information available | No information available | -    |

|               |                       |                      |              |          |   |  |
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|                 |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|
| Other organisms | - | - | - | - | - | - |
|-----------------|---|---|---|---|---|---|

## 12.2. Persistence and degradability

### Abiotic degradation

|              | Degradation half-lives   | Method                   | Evaluation               | Note |
|--------------|--------------------------|--------------------------|--------------------------|------|
| Marine water | No information available | No information available | No information available | -    |
| Fresh water  | No information available | No information available | No information available | -    |
| Air          | No information available | No information available | No information available | -    |
| Soil         | No information available | No information available | No information available | -    |

### Biodegradation

| % Degradation            | Time (days)              | Method                   | Evaluation               | Note                     |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| No information available | No information available | No information available | No information available | No information available |
|                          |                          |                          |                          |                          |
|                          |                          |                          |                          |                          |

## 12.3. Bioaccumulative potential

### Partition coefficient: n-octanol/water (log Kow):

| Value | Concentration            | pH | °C | Method                   | Evaluation               | Note |
|-------|--------------------------|----|----|--------------------------|--------------------------|------|
| -     | No information available | -  | -  | No information available | No information available | -    |
|       |                          |    |    |                          |                          |      |
|       |                          |    |    |                          |                          |      |

### Bioconcentration factor (BCF)

| Value                    | Species                  | Method                   | Evaluation               | Note                     |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| No information available | No information available | No information available | No information available | No information available |
|                          |                          |                          |                          |                          |
|                          |                          |                          |                          |                          |

### Chronic ecotoxicity

| Value                    | Dose             | Exposure time  | Species        | Method         | Evaluation               | Note |
|--------------------------|------------------|----------------|----------------|----------------|--------------------------|------|
| Chronic toxicity on fish | LC <sub>50</sub> | No information | No information | No information | No information available | -    |

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|                                                  |                  |                          |                          |                          |                          |   |
|--------------------------------------------------|------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
|                                                  |                  | available                | available                | available                |                          |   |
| Chronic toxicity on crustacea ( <i>Daphnia</i> ) | EC <sub>50</sub> | No information available | No information available | No information available | No information available | - |

#### 12.4. Mobility in soil

|                                                                |                          |                          |                          |                          |      |
|----------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------|
| Known or predicted distribution in environmental compartments: |                          |                          |                          |                          |      |
| No information available                                       |                          |                          |                          |                          |      |
| Surface tension:                                               |                          |                          |                          |                          |      |
|                                                                | Value                    | °C                       | Concentration            | Method                   | Note |
|                                                                | No information available | No information available | No information available | No information available | -    |
|                                                                |                          |                          |                          |                          |      |
|                                                                |                          |                          |                          |                          |      |

#### Adsorption / desorption

|            |                                     |                          |                          |                          |      |
|------------|-------------------------------------|--------------------------|--------------------------|--------------------------|------|
| Transport  | A/D coefficient<br>Henry's constant | log Kow                  | Evaporation rate         | Method                   | Note |
| Soil-water | No information available            | No information available | No information available | No information available | -    |
| Water-air  | No information available            | No information available | No information available | No information available | -    |
| Soil-air   | No information available            | No information available | No information available | No information available | -    |

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

|                          |
|--------------------------|
| No information available |
|--------------------------|

#### 12.6. Other adverse effects

|                          |
|--------------------------|
| No information available |
|--------------------------|

### SECTION 13 DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

##### 13.1.1. Product/Packaging disposal:

|                                                                                                            |
|------------------------------------------------------------------------------------------------------------|
| Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection. |
|------------------------------------------------------------------------------------------------------------|

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|         |                                                                                                                                                                                                                                                                                                                                       |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13.1.2. | Waste codes/waste designations according to Law:                                                                                                                                                                                                                                                                                      |
|         | No information available                                                                                                                                                                                                                                                                                                              |
| 13.1.3. | Waste treatment – relevant information:                                                                                                                                                                                                                                                                                               |
|         | No information available                                                                                                                                                                                                                                                                                                              |
| 13.1.4. | Sewage disposal – relevant information:                                                                                                                                                                                                                                                                                               |
|         | Waste must not be disposed of into the sewage system.                                                                                                                                                                                                                                                                                 |
| 13.1.5. | Other disposal recommendations:                                                                                                                                                                                                                                                                                                       |
|         | Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge. Do not dispose of in places where ignition may occur. |
| 13.1.6. | Relevant Community provisions:                                                                                                                                                                                                                                                                                                        |
|         | -                                                                                                                                                                                                                                                                                                                                     |

#### SECTION 14 TRANSPORT INFORMATION

|                               |                                       |
|-------------------------------|---------------------------------------|
|                               | Transporting/shipment by road (ADR)   |
| UN number:                    | Not subject to transport regulations. |
| UN proper shipping name:      | -                                     |
| Transport hazard class(es):   | -                                     |
| Packing group:                | -                                     |
| Environmentally hazardous:    | -                                     |
| Special precautions for user: | -                                     |
|                               | Transporting/shipment by rail (RID)   |
| UN number:                    | Not subject to transport regulations. |
| UN proper shipping name:      | -                                     |
| Transport hazard class(es):   | -                                     |
| Packing group:                | -                                     |
| Environmentally hazardous:    | -                                     |
| Special precautions for user: | -                                     |
|                               | Inland waterway transport (ADN)       |
| UN number:                    | Not subject to transport regulations. |
| UN proper shipping name:      | -                                     |
| Transport hazard class(es):   | -                                     |

|               |                       |                      |              |            |
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|                                                 |                                       |
|-------------------------------------------------|---------------------------------------|
| Packing group:                                  | -                                     |
| Environmentally hazardous:                      | -                                     |
| Special precautions for user:                   | -                                     |
| Transporting/shipment by sea (IMDG)             |                                       |
| UN number:                                      | Not subject to transport regulations. |
| UN proper shipping name:                        | -                                     |
| Transport hazard class(es):                     | -                                     |
| Packing group:                                  | -                                     |
| Environmentally hazardous:                      | -                                     |
| Special precautions for user:                   | -                                     |
| Transporting/shipment by air (ICAO-TI/IATA-DGR) |                                       |
| UN number:                                      | Not subject to transport regulations. |
| UN proper shipping name:                        | -                                     |
| Transport hazard class(es):                     | -                                     |
| Packing group:                                  | -                                     |
| Environmentally hazardous:                      | -                                     |
| Special precautions for user:                   | -                                     |
| Further information:                            |                                       |
| -                                               |                                       |

| <b>SECTION 15 REGULATORY INFORMATION</b> |                                                                                                |
|------------------------------------------|------------------------------------------------------------------------------------------------|
| 15.1.                                    | Safety, health and environmental regulations/legislation specific for the substance or mixture |
|                                          | EU regulations                                                                                 |
|                                          | Authorization and/or restrictions of use                                                       |
|                                          | Authorizations: -                                                                              |
|                                          | Restrictions: -                                                                                |

|               |                       |                      |              |            |
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|                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other EU regulations:                                                                                        | <p>EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council;</p> <p>The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH);</p> <p>EC Regulation No. 2037/2000 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer;</p> <p>EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals;</p> <p>EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants;</p> <p>Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives</p> |
| Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| National legislation:                                                                                        | <p>Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 15.2.                                                                                                        | Chemical safety assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                              | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| SECTION 16 Other information |                                                                                                                         |   |                          |                                                  |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------|---|--------------------------|--------------------------------------------------|
| 16.1.                        | Indication of changes:                                                                                                  |   | -                        |                                                  |
| 16.2.                        | Abbreviations and acronyms:                                                                                             |   | PBT                      | Stable, bioaccumulative and toxic                |
|                              |                                                                                                                         |   | vPvB                     | Strongly stable and strongly bioaccumulative.    |
|                              |                                                                                                                         |   | LD <sub>50</sub>         | Lethal dose, 50%                                 |
|                              |                                                                                                                         |   | LC <sub>50</sub>         | Lethal concentration, 50%                        |
|                              |                                                                                                                         |   | STOT-SE                  | Specific target organ toxicity - single exposure |
| 16.3.                        | Key literature references and source of data:                                                                           |   | -                        |                                                  |
| 16.4.                        | Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP) |   |                          |                                                  |
| Classification               |                                                                                                                         |   | Classification procedure |                                                  |
| -                            |                                                                                                                         |   | -                        |                                                  |
| 16.5.                        | Relevant H statements (number and full text)                                                                            |   |                          |                                                  |
|                              | H:                                                                                                                      | - | -                        |                                                  |
| 16.6.                        | Training advice:                                                                                                        |   | -                        |                                                  |

|               |                       |                      |              |          |   |
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|       |                      |                                                                                                                                                                                                                                                                                    |
|-------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16.7. | Further information: | <p>** "X" in the product code marks different volumes (different packagings of the product)</p> <p>We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.</p> |
|-------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                   |  |
|-----------------------------------------------------------------------------------|--|
| <b>ANNEX:</b><br><b>EXPOSURE SCENARIO RESULTING TO CHEMICAL SAFETY ASSESSMENT</b> |  |
| -                                                                                 |  |