



## Safety Data Sheet according to (EC) No 1907/2006 as amended

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UniBond Triple Protect Grout Pen White

SDS No. : 501604

V007.0

Revision: 24.06.2024

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

#### 1.1. Product identifier

UniBond Triple Protect Grout Pen White

UFI: D9WH-FWWF-9203-0ACS

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

Intended use:

Joint colour

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

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website [www.mysds.henkel.com](http://www.mysds.henkel.com) or [www.henkel-adhesives.com](http://www.henkel-adhesives.com).

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: [technical.services@henkel.co.uk](mailto:technical.services@henkel.co.uk)

### SECTION 2: Hazards identification

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

##### Classification (CLP):

Skin sensitizer

Category 1

H317 May cause an allergic skin reaction.

Chronic hazards to the aquatic environment

Category 3

H412 Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Label elements (CLP):

Hazard pictogram:



Contains

2-Octyl-2H-isothiazol-3-one

|                                                      |                                                                                                                                                                                                                                    |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Signal word:</b>                                  | Warning                                                                                                                                                                                                                            |
| <b>Hazard statement:</b>                             | H317 May cause an allergic skin reaction.<br>H412 Harmful to aquatic life with long lasting effects.                                                                                                                               |
| <b>Supplemental information</b>                      | EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.<br>Contains: Isothiazolinone mixture (C(M)IT/MIT (3:1)); 1,2-Benzisothiazol-3(2H)-one<br>May produce an allergic reaction. |
| <b>Precautionary statement:</b>                      | P102 Keep out of reach of children.<br>P101 If medical advice is needed, have product container or label at hand.                                                                                                                  |
| <b>Precautionary statement:</b><br><b>Prevention</b> | P273 Avoid release to the environment.<br>P280 Wear protective gloves.                                                                                                                                                             |
| <b>Precautionary statement:</b><br><b>Disposal</b>   | P501 Dispose of contents/container in accordance with national regulation.                                                                                                                                                         |

### 2.3. Other hazards

None if used properly.

Following substances are present in a concentration  $\geq$  the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration  $\geq$  the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components<br>CAS-No.<br>EC Number<br>REACH-Reg No.                   | Concentration                             | Classification                                                                                                                                                                                                 | Specific Conc. Limits, M-factors and ATEs                                                                                                                                                                                           | Add. Information |
|---------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Titanium dioxide<br>13463-67-7<br>236-675-5<br>01-2119489379-17                 | 20- < 25 %                                | Carc. 2, Inhalation, H351                                                                                                                                                                                      |                                                                                                                                                                                                                                     |                  |
| 3-iodo-2-propynyl butylcarbamate<br>55406-53-6<br>259-627-5<br>01-2120762115-60 | 0,01- < 0,1 %<br>( 0,1 %o- < 1 %o)        | Aquatic Chronic 1, H410<br>STOT RE 1, H372<br>Acute Tox. 3, Inhalation, H331<br>Skin Sens. 1, H317<br>Eye Dam. 1, H318<br>Aquatic Acute 1, H400<br>Acute Tox. 4, Oral, H302<br>STOT SE 3, H335                 | M acute = 10<br>M chronic = 1                                                                                                                                                                                                       |                  |
| bronopol<br>52-51-7<br>200-143-0<br>01-2119980938-15                            | 0,005- < 0,05 %<br>( 50 ppm- < 500 ppm)   | Acute Tox. 3, Inhalation, H331<br>Acute Tox. 4, Dermal, H312<br>Acute Tox. 3, Oral, H301<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411     | M acute = 10<br>=====<br>inhalation:ATE = 0,5881<br>mg/l;dust/mist                                                                                                                                                                  |                  |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5<br>220-120-9<br>01-2120761540-60      | 0,0036- < 0,036 %<br>( 36 ppm- < 360 ppm) | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Acute Tox. 4, Oral, H302<br>Skin Irrit. 2, H315<br>Skin Sens. 1A, H317<br>Eye Dam. 1, H318<br>Acute Tox. 2, Inhalation, H330                               | Skin Sens. 1A; H317; C >= 0,036 %<br>=====<br>M acute = 1<br>M chronic = 1<br>=====<br>oral:ATE = 450 mg/kg<br>inhalation:ATE = 0,21<br>mg/l;dust/mist                                                                              |                  |
| pyrithione zinc<br>13463-41-7<br>236-671-3<br>01-2119511196-46                  | 0,001- < 0,01 %<br>( 10 ppm- < 100 ppm)   | Aquatic Acute 1, H400<br>Acute Tox. 2, Inhalation, H330<br>Repr. 1B, H360D<br>Eye Dam. 1, H318<br>STOT RE 1, H372<br>Aquatic Chronic 1, H410<br>Acute Tox. 3, Oral, H301                                       | M acute = 1.000<br>M chronic = 10<br>=====<br>oral:ATE = 221 mg/kg<br>inhalation:ATE = 0,14<br>mg/l;dust/mist                                                                                                                       |                  |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1<br>247-761-7<br>01-2120768921-45      | 0,0025- < 0,005 %<br>( 25 ppm- < 50 ppm)  | Acute Tox. 2, Inhalation, H330<br>Acute Tox. 3, Dermal, H311<br>Skin Corr. 1, H314<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Acute Tox. 3, Oral, H301<br>Aquatic Chronic 1, H410<br>Eye Dam. 1, H318  | Skin Sens. 1A; H317; C >= 0,0015 %<br>=====<br>M acute = 100<br>M chronic = 100<br>=====<br>dermal:ATE = 311 mg/kg<br>oral:ATE = 125 mg/kg<br>inhalation:ATE = 0,27<br>mg/l;dust/mist                                               |                  |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9<br>01-2120764691-48    | 0,0001- < 0,0015 %<br>( 1 ppm- < 15 ppm)  | Aquatic Chronic 1, H410<br>Skin Corr. 1C, H314<br>Acute Tox. 2, Dermal, H310<br>Acute Tox. 3, Oral, H301<br>Eye Dam. 1, H318<br>Acute Tox. 2, Inhalation, H330<br>Aquatic Acute 1, H400<br>Skin Sens. 1A, H317 | Skin Irrit. 2; H315; C 0,06 - < 0,6 %<br>Skin Corr. 1C; H314; C >= 0,6 %<br>Eye Irrit. 2; H319; C 0,06 - < 0,6 %<br>Eye Dam. 1; H318; C >= 0,6 %<br>Skin Sens. 1A; H317; C >= 0,0015 %<br>=====<br>M acute = 100<br>M chronic = 100 |                  |

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.

For full text of the H - statements and other abbreviations see section 16 "Other information".

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

May cause an allergic skin reaction.

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

See section: Description of first aid measures

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

carbon dioxide, foam, powder, water spray jet, fine water spray

**Extinguishing media which must not be used for safety reasons:**

High pressure waterjet

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

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) can be released.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

## SECTION 6: Accidental release measures

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

Wear protective equipment.

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Danger of slipping on spilled product.

### 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

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

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

#### **6.4. Reference to other sections**

See advice in section 8

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

Ensure that workrooms are adequately ventilated.

Avoid skin and eye contact.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

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

Ensure good ventilation/extraction.

Keep only in original container.

Temperatures between + 5 °C and + 25 °C.

Keep away from heat and direct sunlight.

Keep container tightly sealed.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

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

Joint colour

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**Valid for  
Great Britain

| <b>Ingredient [Regulated substance]</b>                                          | <b>ppm</b> | <b>mg/m<sup>3</sup></b> | <b>Value type</b>            | <b>Short term exposure limit category / Remarks</b> | <b>Regulatory list</b> |
|----------------------------------------------------------------------------------|------------|-------------------------|------------------------------|-----------------------------------------------------|------------------------|
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE, RESPIRABLE]                 |            | 4                       | Time Weighted Average (TWA): |                                                     | EH40 WEL               |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE, TOTAL INHALABLE]            |            | 10                      | Time Weighted Average (TWA): |                                                     | EH40 WEL               |
| Propane-1,2-diol<br>57-55-6<br>[PROPANE-1,2-DIOL, PARTICULATES]                  |            | 10                      | Time Weighted Average (TWA): |                                                     | EH40 WEL               |
| Propane-1,2-diol<br>57-55-6<br>[PROPANE-1,2-DIOL, TOTAL VAPOUR AND PARTICULATES] | 150        | 474                     | Time Weighted Average (TWA): |                                                     | EH40 WEL               |

**Occupational Exposure Limits**Valid for  
Ireland

| <b>Ingredient [Regulated substance]</b>              | <b>ppm</b> | <b>mg/m<sup>3</sup></b> | <b>Value type</b>            | <b>Short term exposure limit category / Remarks</b> | <b>Regulatory list</b> |
|------------------------------------------------------|------------|-------------------------|------------------------------|-----------------------------------------------------|------------------------|
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE] |            | 10                      | Time Weighted Average (TWA): |                                                     | IR_OEL                 |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE] |            | 4                       | Time Weighted Average (TWA): |                                                     | IR_OEL                 |
| Propane-1,2-diol<br>57-55-6<br>[PROPANE-1,2-DIOL]    |            | 10                      | Time Weighted Average (TWA): |                                                     | IR_OEL                 |
| Propane-1,2-diol<br>57-55-6<br>[PROPANE-1,2-DIOL]    | 150        | 470                     | Time Weighted Average (TWA): |                                                     | IR_OEL                 |

**Predicted No-Effect Concentration (PNEC):**

| Name on list                                   | Environmental<br>Compartment       | Exposure<br>period | Value            |     |                  |        | Remarks |
|------------------------------------------------|------------------------------------|--------------------|------------------|-----|------------------|--------|---------|
|                                                |                                    |                    | mg/l             | ppm | mg/kg            | others |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | aqua<br>(freshwater)               |                    | 0,001 mg/l       |     |                  |        |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | aqua (marine<br>water)             |                    | 0 mg/l           |     |                  |        |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | sewage<br>treatment plant<br>(STP) |                    | 0,44 mg/l        |     |                  |        |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | sediment<br>(freshwater)           |                    |                  |     | 0,017<br>mg/kg   |        |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | sediment<br>(marine water)         |                    |                  |     | 0,002<br>mg/kg   |        |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Soil                               |                    |                  |     | 0,005<br>mg/kg   |        |         |
| bronopol<br>52-51-7                            | aqua<br>(freshwater)               |                    | 0,001 mg/l       |     |                  |        |         |
| bronopol<br>52-51-7                            | Freshwater -<br>intermittent       |                    | 0 mg/l           |     |                  |        |         |
| bronopol<br>52-51-7                            | aqua (marine<br>water)             |                    | 0,001 mg/l       |     |                  |        |         |
| bronopol<br>52-51-7                            | sewage<br>treatment plant<br>(STP) |                    | 0,43 mg/l        |     |                  |        |         |
| bronopol<br>52-51-7                            | sediment<br>(freshwater)           |                    |                  |     | 0,021<br>mg/kg   |        |         |
| bronopol<br>52-51-7                            | sediment<br>(marine water)         |                    |                  |     | 0,009<br>mg/kg   |        |         |
| bronopol<br>52-51-7                            | Soil                               |                    |                  |     | 0,21 mg/kg       |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | aqua<br>(freshwater)               |                    | 0,00403<br>mg/l  |     |                  |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | aqua (marine<br>water)             |                    | 0,000403<br>mg/l |     |                  |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | Freshwater -<br>intermittent       |                    | 0,0011<br>mg/l   |     |                  |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | sewage<br>treatment plant<br>(STP) |                    | 1,03 mg/l        |     |                  |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | sediment<br>(freshwater)           |                    |                  |     | 0,0499<br>mg/kg  |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | sediment<br>(marine water)         |                    |                  |     | 0,00499<br>mg/kg |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | Soil                               |                    |                  |     | 3 mg/kg          |        |         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5      | Marine water -<br>intermittent     |                    | 0,000110<br>mg/l |     |                  |        |         |
| Pyrithione zinc<br>13463-41-7                  | sewage<br>treatment plant<br>(STP) |                    | 0,01 mg/l        |     |                  |        |         |
| Pyrithione zinc<br>13463-41-7                  | sediment<br>(freshwater)           |                    |                  |     | 0,009<br>mg/kg   |        |         |
| Pyrithione zinc<br>13463-41-7                  | sediment<br>(marine water)         |                    |                  |     | 0,009<br>mg/kg   |        |         |
| Pyrithione zinc<br>13463-41-7                  | Soil                               |                    |                  |     | 1,02 mg/kg       |        |         |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1      | sediment<br>(freshwater)           |                    |                  |     | 0,0475<br>mg/kg  |        |         |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1      | sediment<br>(marine water)         |                    |                  |     | 0,00475<br>mg/kg |        |         |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1      | aqua<br>(freshwater)               |                    | 0,0022<br>mg/l   |     |                  |        |         |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1      | aqua<br>(intermittent<br>releases) |                    | 0,0012<br>mg/l   |     |                  |        |         |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1      | aqua (marine<br>water)             |                    | 0,00022<br>mg/l  |     |                  |        |         |
| 2-Octyl-2H-isothiazol-3-one                    | Soil                               |                    |                  |     | 0,0082           |        |         |

|                                                                                                            |                                    |  |                 |  |                |  |  |
|------------------------------------------------------------------------------------------------------------|------------------------------------|--|-----------------|--|----------------|--|--|
| 26530-20-1                                                                                                 |                                    |  |                 |  | mg/kg          |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | aqua<br>(freshwater)               |  | 0,00339<br>mg/l |  |                |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | aqua (marine<br>water)             |  | 0,00339<br>mg/l |  |                |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | sewage<br>treatment plant<br>(STP) |  | 0,23 mg/l       |  |                |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | sediment<br>(freshwater)           |  |                 |  | 0,027<br>mg/kg |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | sediment<br>(marine water)         |  |                 |  | 0,027<br>mg/kg |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | Soil                               |  |                 |  | 0,01 mg/kg     |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | Freshwater -<br>intermittent       |  | 0,00339<br>mg/l |  |                |  |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | Marine water -<br>intermittent     |  | 0,00339<br>mg/l |  |                |  |  |

**Derived No-Effect Level (DNEL):**

| Name on list                                   | Application Area   | Route of Exposure | Health Effect                                | Exposure Time | Value        | Remarks |
|------------------------------------------------|--------------------|-------------------|----------------------------------------------|---------------|--------------|---------|
| Titanium dioxide<br>13463-67-7                 | Workers            | inhalation        | Long term exposure - local effects           |               | 0,17 mg/m3   |         |
| Titanium dioxide<br>13463-67-7                 | General population | inhalation        | Long term exposure - local effects           |               | 0,028 mg/m3  |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | inhalation        | Long term exposure - systemic effects        |               | 0,023 mg/m3  |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 0,07 mg/m3   |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | inhalation        | Long term exposure - local effects           |               | 1,16 mg/m3   |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | dermal            | Long term exposure - systemic effects        |               | 2 mg/kg      |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | inhalation        | Acute/short term exposure - local effects    |               | 1,16 mg/m3   |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | dermal            | Long term exposure - local effects           |               |              |         |
| 3-Iodo-2-propynyl butylcarbamate<br>55406-53-6 | Workers            | dermal            | Acute/short term exposure - local effects    |               |              |         |
| bronopol<br>52-51-7                            | Workers            | dermal            | Long term exposure - systemic effects        |               | 2 mg/kg      |         |
| bronopol<br>52-51-7                            | General population | dermal            | Long term exposure - systemic effects        |               | 0,7 mg/kg    |         |
| bronopol<br>52-51-7                            | General population | oral              | Long term exposure - systemic effects        |               | 0,18 mg/kg   |         |
| bronopol<br>52-51-7                            | Workers            | inhalation        | Long term exposure - systemic effects        |               | 3,5 mg/m3    |         |
| bronopol<br>52-51-7                            | General population | inhalation        | Long term exposure - systemic effects        |               | 0,6 mg/m3    |         |
| bronopol<br>52-51-7                            | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 10,5 mg/m3   |         |
| bronopol<br>52-51-7                            | Workers            | inhalation        | Long term exposure - local effects           |               | 2,5 mg/m3    |         |
| bronopol<br>52-51-7                            | Workers            | inhalation        | Acute/short term exposure - local effects    |               | 2,5 mg/m3    |         |
| bronopol<br>52-51-7                            | Workers            | dermal            | Acute/short term exposure - systemic effects |               | 6 mg/kg      |         |
| bronopol<br>52-51-7                            | Workers            | dermal            | Long term exposure - local effects           |               | 0,008 mg/cm2 |         |
| bronopol<br>52-51-7                            | Workers            | dermal            | Acute/short term exposure - local effects    |               | 0,008 mg/cm2 |         |
| bronopol<br>52-51-7                            | General population | dermal            | Long term exposure - local effects           |               | 0,004 mg/cm2 |         |
| bronopol<br>52-51-7                            | General population | dermal            | Acute/short term exposure - local effects    |               | 0,004 mg/cm2 |         |
| bronopol<br>52-51-7                            | General population | dermal            | Acute/short term exposure -                  |               | 2,1 mg/kg    |         |

|                                                                                                            |                    |            | systemic effects                             |  |                        |  |
|------------------------------------------------------------------------------------------------------------|--------------------|------------|----------------------------------------------|--|------------------------|--|
| bronopol<br>52-51-7                                                                                        | General population | inhalation | Long term exposure - local effects           |  | 0,6 mg/m <sup>3</sup>  |  |
| bronopol<br>52-51-7                                                                                        | General population | inhalation | Acute/short term exposure - systemic effects |  | 1,8 mg/m <sup>3</sup>  |  |
| bronopol<br>52-51-7                                                                                        | General population | inhalation | Acute/short term exposure - local effects    |  | 0,6 mg/m <sup>3</sup>  |  |
| bronopol<br>52-51-7                                                                                        | General population | oral       | Acute/short term exposure - systemic effects |  | 0,5 mg/kg              |  |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                                                                  | Workers            | inhalation | Long term exposure - systemic effects        |  | 6,81 mg/m <sup>3</sup> |  |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                                                                  | Workers            | dermal     | Long term exposure - systemic effects        |  | 0,966 mg/kg            |  |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                                                                  | General population | inhalation | Long term exposure - systemic effects        |  | 1,2 mg/m <sup>3</sup>  |  |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                                                                  | General population | dermal     | Long term exposure - systemic effects        |  | 0,345 mg/kg            |  |
| Pyrrithione zinc<br>13463-41-7                                                                             | Workers            | dermal     | Long term exposure - systemic effects        |  | 0,01 mg/kg             |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | Workers            | inhalation | Long term exposure - local effects           |  | 0,02 mg/m <sup>3</sup> |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | Workers            | inhalation | Acute/short term exposure - local effects    |  | 0,04 mg/m <sup>3</sup> |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | General population | inhalation | Long term exposure - local effects           |  | 0,02 mg/m <sup>3</sup> |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | General population | inhalation | Acute/short term exposure - local effects    |  | 0,04 mg/m <sup>3</sup> |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | General population | oral       | Long term exposure - systemic effects        |  | 0,09 mg/kg             |  |
| 3(2H)-Isothiazolone, 5-chloro-2-methyl-,<br>mixt. with 2-methyl-3(2H)-isothiazolone<br>(3:1)<br>55965-84-9 | General population | oral       | Acute/short term exposure - systemic effects |  | 0,11 mg/kg             |  |

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Combination filter: ABEKP (EN 14387)

This recommendation should be matched to local conditions.

#### Hand protection:

In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374.  
material thickness > 0.1 mm

Perforation time > 480 minutes

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

#### Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

#### Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

#### Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

## SECTION 9: Physical and chemical properties

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

|                                        |                                                                                                                                     |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Delivery form                          | liquid                                                                                                                              |
| Colour                                 | white                                                                                                                               |
| Odor                                   | Typical                                                                                                                             |
| Physical state                         | liquid                                                                                                                              |
| Melting point                          | Not applicable, Product is a liquid                                                                                                 |
| Solidification temperature             | 0 °C (32 °F) Value of most critical component                                                                                       |
| Initial boiling point                  | 100 °C (212 °F)                                                                                                                     |
| Flammability                           | The product is not flammable.                                                                                                       |
| Explosive limits                       | Not applicable, The product is not flammable.                                                                                       |
| Flash point                            | > 93 °C (> 199.4 °F); Supplier method                                                                                               |
| Auto-ignition temperature              | Not applicable, The product is not flammable.                                                                                       |
| Decomposition temperature              | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH                                     | 7,8 no method / method unknown                                                                                                      |
| (20 °C (68 °F); Conc.: 100 % product)  |                                                                                                                                     |
| Viscosity (kinematic)                  | > 20,5 mm <sup>2</sup> /s                                                                                                           |
| (40 °C (104 °F); )                     |                                                                                                                                     |
| Solubility (qualitative)               | Miscible                                                                                                                            |
| (20 °C (68 °F); Solvent: Water)        |                                                                                                                                     |
| Partition coefficient: n-octanol/water | Not applicable                                                                                                                      |
|                                        | Mixture                                                                                                                             |
| Vapour pressure                        | 3,17 kPa Value of most critical component                                                                                           |
| (20 °C (68 °F))                        |                                                                                                                                     |
| Density                                | 1,2 - 1,5 g/cm <sup>3</sup>                                                                                                         |
| (23 °C (73.4 °F))                      |                                                                                                                                     |
| Relative vapour density:               | Currently under determination                                                                                                       |
| Particle characteristics               | Not applicable                                                                                                                      |
|                                        | Product is a liquid                                                                                                                 |

### 9.2. Other information

Other information not applicable for this product

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None if used for intended purpose.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

None if used for intended purpose.

### 10.5. Incompatible materials

None if used properly.

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type                          | Value         | Species | Method                                                          |
|-------------------------------------------------------------|----------------------------------------|---------------|---------|-----------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | LD50                                   | > 5.000 mg/kg | rat     | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | LD50                                   | 1.470 mg/kg   | rat     | OECD Guideline 401 (Acute Oral Toxicity)                        |
| bronopol<br>52-51-7                                         | LD50                                   | 193 mg/kg     | rat     | OECD Guideline 401 (Acute Oral Toxicity)                        |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | Acute<br>toxicity<br>estimate<br>(ATE) | 450 mg/kg     |         | Expert judgement                                                |
| pyrithione zinc<br>13463-41-7                               | Acute<br>toxicity<br>estimate<br>(ATE) | 221 mg/kg     |         | Expert judgement                                                |
| 2-Octyl-2H-isothiazol-3-<br>one<br>26530-20-1               | Acute<br>toxicity<br>estimate<br>(ATE) | 125 mg/kg     |         | Expert judgement                                                |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | LD50                                   | 66 mg/kg      | rat     | OECD Guideline 401 (Acute Oral Toxicity)                        |

**Acute dermal toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type                          | Value          | Species | Method                                     |
|-------------------------------------------------------------|----------------------------------------|----------------|---------|--------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | LD50                                   | > 10.000 mg/kg | rabbit  | not specified                              |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | LD50                                   | > 2.000 mg/kg  | rabbit  | EPA OPP 81-2 (Acute Dermal Toxicity)       |
| bronopol<br>52-51-7                                         | LD50                                   | 1.600 mg/kg    | rat     | not specified                              |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | LD50                                   | > 2.000 mg/kg  | rat     | OECD Guideline 402 (Acute Dermal Toxicity) |
| pyrithione zinc<br>13463-41-7                               | LD50                                   | > 2.000 mg/kg  | rat     | EPA OPP 81-2 (Acute Dermal Toxicity)       |
| 2-Octyl-2H-isothiazol-3-<br>one<br>26530-20-1               | Acute<br>toxicity<br>estimate<br>(ATE) | 311 mg/kg      |         | Expert judgement                           |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | LD50                                   | 87,12 mg/kg    | rabbit  | OECD Guideline 402 (Acute Dermal Toxicity) |

**Acute inhalative toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type                          | Value        | Test atmosphere | Exposure<br>time | Species | Method                                                                        |
|-------------------------------------------------------------|----------------------------------------|--------------|-----------------|------------------|---------|-------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | LC50                                   | > 6,82 mg/l  | dust            | 4 h              | rat     | not specified                                                                 |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | LC50                                   | 0,68 mg/l    | dust/mist       | 4 h              | rat     | equivalent or similar to OECD<br>Guideline 403 (Acute<br>Inhalation Toxicity) |
| bronopol<br>52-51-7                                         | LC50                                   | > 0,588 mg/l | dust/mist       | 4 h              | rat     | not specified                                                                 |
| bronopol<br>52-51-7                                         | LC100                                  | 1,14 mg/l    | dust/mist       | 4 h              | rat     | OECD Guideline 403 (Acute<br>Inhalation Toxicity)                             |
| bronopol<br>52-51-7                                         | Acute<br>toxicity<br>estimate<br>(ATE) | 0,5881 mg/l  | dust/mist       | 4 h              |         | Expert judgement                                                              |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | Acute<br>toxicity<br>estimate<br>(ATE) | 0,21 mg/l    | dust/mist       |                  |         | Expert judgement                                                              |
| pyrithione zinc<br>13463-41-7                               | Acute<br>toxicity<br>estimate<br>(ATE) | 0,14 mg/l    | dust/mist       | 4 h              |         | Expert judgement                                                              |
| 2-Octyl-2H-isothiazol-3-<br>one<br>26530-20-1               | Acute<br>toxicity<br>estimate<br>(ATE) | 0,27 mg/l    | dust/mist       | 4 h              |         | Expert judgement                                                              |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | LC50                                   | 0,171 mg/l   | dust/mist       | 4 h              | rat     | OECD Guideline 403 (Acute<br>Inhalation Toxicity)                             |

**Skin corrosion/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result                   | Exposure<br>time | Species | Method                                                   |
|-------------------------------------------------------------|--------------------------|------------------|---------|----------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | not irritating           | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | slightly<br>irritating   | 4 h              | rabbit  | EPA OPP 81-5 (Acute Dermal Irritation)                   |
| bronopol<br>52-51-7                                         | irritating               | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | moderately<br>irritating | 4 h              | rabbit  | EPA OPP 81-5 (Acute Dermal Irritation)                   |
| pyrithione zinc<br>13463-41-7                               | not irritating           | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | corrosive                | 4 h              | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result                                                | Exposure<br>time | Species | Method                                                |
|-------------------------------------------------------------|-------------------------------------------------------|------------------|---------|-------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | not irritating                                        |                  | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | Category 1<br>(irreversible<br>effects on the<br>eye) |                  | rabbit  | EPA OPP 81-4 (Acute Eye Irritation)                   |
| bronopol<br>52-51-7                                         | Category 1<br>(irreversible<br>effects on the<br>eye) |                  | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | corrosive                                             | 3 h              | rabbit  | EPA OPP 81-4 (Acute Eye Irritation)                   |
| pyrithione zinc<br>13463-41-7                               | Category 1<br>(irreversible<br>effects on the<br>eye) |                  | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | Category 1<br>(irreversible<br>effects on the<br>eye) |                  | rabbit  | not specified                                         |

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result          | Test type                             | Species    | Method                                                                                         |
|-------------------------------------------------------------|-----------------|---------------------------------------|------------|------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | not sensitising | Mouse local lymphnode<br>assay (LLNA) | mouse      | equivalent or similar to OECD Guideline<br>429 (Skin Sensitisation: Local Lymph<br>Node Assay) |
| Titanium dioxide<br>13463-67-7                              | not sensitising | Buehler test                          | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | sensitising     | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| bronopol<br>52-51-7                                         | not sensitising | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| bronopol<br>52-51-7                                         | not sensitising | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay)                             |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | sensitising     | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay)                             |
| pyrithione zinc<br>13463-41-7                               | not sensitising | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| 2-Octyl-2H-isothiazol-3-<br>one<br>26530-20-1               | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay)                             |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | sensitising     | Guinea pig maximisation<br>test       | guinea pig | OECD Guideline 406 (Skin Sensitisation)                                                        |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | not specified                                                                                  |

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| <b>Hazardous substances<br/>CAS-No.</b>                     | <b>Result</b>                                  | <b>Type of study /<br/>Route of<br/>administration</b>                                            | <b>Metabolic<br/>activation /<br/>Exposure time</b> | <b>Species</b> | <b>Method</b>                                                                                                                     |
|-------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)                                                                       |
| Titanium dioxide<br>13463-67-7                              | negative                                       | in vitro mammalian<br>chromosome<br>aberration test                                               | with and without                                    |                | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                                          |
| Titanium dioxide<br>13463-67-7                              | negative                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                                             |
| Titanium dioxide<br>13463-67-7                              | negative                                       | in vitro mammalian<br>cell micronucleus<br>test                                                   | without                                             |                | equivalent or similar to OECD<br>Guideline 487 (In vitro<br>Mammalian Cell<br>Micronucleus Test)                                  |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | EPA OPP 84-2 (Mutagenicity<br>Testing)                                                                                            |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | negative                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                                             |
| bronopol<br>52-51-7                                         | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | not specified                                                                                                                     |
| bronopol<br>52-51-7                                         | positive                                       | in vitro mammalian<br>chromosome<br>aberration test                                               | with and without                                    |                | not specified                                                                                                                     |
| bronopol<br>52-51-7                                         | negative                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | not specified                                                                                                                     |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)                                                                       |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | negative                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                                             |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | positive<br>without<br>metabolic<br>activation | in vitro mammalian<br>chromosome<br>aberration test                                               | with and without                                    |                | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                                          |
| pyrithione zinc<br>13463-41-7                               | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)                                                                       |
| pyrithione zinc<br>13463-41-7                               | positive                                       | in vitro mammalian<br>chromosome<br>aberration test                                               | with and without                                    |                | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                                          |
| pyrithione zinc<br>13463-41-7                               | negative                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                                             |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | ambiguous                                      | bacterial reverse<br>mutation assay (e.g<br>Ames test)                                            | with and without                                    |                | equivalent or similar to OECD<br>Guideline 471 (Bacterial<br>Reverse Mutation Assay)                                              |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | positive                                       | in vitro mammalian<br>chromosome<br>aberration test                                               | with and without                                    |                | EPA OPP 84-2 (Mutagenicity<br>Testing)                                                                                            |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | positive                                       | mammalian cell<br>gene mutation assay                                                             | with and without                                    |                | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                                             |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | negative                                       | DNA damage and<br>repair assay,<br>unscheduled DNA<br>synthesis in<br>mammalian cells in<br>vitro | not applicable                                      |                | OECD Guideline 482 (Genetic<br>Toxicology: DNA Damage<br>and Repair, Unscheduled<br>DNA Synthesis in Mammalian<br>Cells In Vitro) |
| Titanium dioxide<br>13463-67-7                              | negative                                       | oral: gavage                                                                                      |                                                     | rat            | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)                                                                |
| 3-iodo-2-propynyl<br>butylcarbamate                         | negative                                       | oral: gavage                                                                                      |                                                     | mouse          | equivalent or similar to OECD<br>Guideline 474 (Mammalian                                                                         |

|                                                          |          |                   |  |                         |                                                                                                      |
|----------------------------------------------------------|----------|-------------------|--|-------------------------|------------------------------------------------------------------------------------------------------|
| 55406-53-6                                               |          |                   |  |                         | Erythrocyte Micronucleus Test)                                                                       |
| bronopol<br>52-51-7                                      | negative | oral: gavage      |  | mouse                   | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                         |
| bronopol<br>52-51-7                                      | negative | oral: gavage      |  | rat                     | OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                | negative | oral: gavage      |  | mouse                   | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                         |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                | negative | oral: unspecified |  | rat                     | OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)         |
| pyrithione zinc<br>13463-41-7                            | negative | oral: gavage      |  | mouse                   | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                         |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | negative | oral: gavage      |  | mouse                   | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)                                         |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | negative | oral: gavage      |  | mouse                   | OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)                                |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | negative | oral: feed        |  | Drosophila melanogaster | OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Drosophila melanogaster) |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | negative | oral: gavage      |  | rat                     | OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)         |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | negative | oral: gavage      |  | rat                     | EPA OPP 84-2 (Mutagenicity Testing)                                                                  |

### Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components<br>CAS-No.                          | Result           | Route of application | Exposure time /<br>Frequency of treatment | Species | Sex         | Method                                                                                         |
|----------------------------------------------------------|------------------|----------------------|-------------------------------------------|---------|-------------|------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                           | not carcinogenic | oral: feed           | 103 w daily                               | rat     | male/female | not specified                                                                                  |
| 3-iodo-2-propynyl butylcarbamate<br>55406-53-6           | not carcinogenic | oral: unspecified    | 104 w daily                               | rat     | male/female | equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | not carcinogenic | oral: drinking water | 2 y daily                                 | rat     | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)                       |

**Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result / Value                                                  | Test type                   | Route of<br>application    | Species | Method                                                                                             |
|-------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------|----------------------------|---------|----------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | NOAEL P >= 1.000 mg/kg<br>NOAEL F1 >= 1.000 mg/kg               | one-<br>generation<br>study | oral: feed                 | rat     | OECD Guideline 443<br>(Extended One-Generation<br>Reproductive Toxicity<br>Study)                  |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOAEL P 300 ppm<br>NOAEL F1 > 750 ppm<br>NOAEL F2 > 750 ppm     | two-<br>generation<br>study | oral: gavage               | rat     | equivalent or similar to<br>OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study) |
| bronopol<br>52-51-7                                         | NOAEL P > 40 mg/kg<br>NOAEL F1 > 40 mg/kg                       | One<br>generation<br>study  | oral: gavage               | rat     | not specified                                                                                      |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | NOAEL P 112 mg/kg<br>NOAEL F1 56,6 mg/kg<br>NOAEL F2 56,6 mg/kg | Two<br>generation<br>study  | oral: feed                 | rat     | EPA OPPTS 870.3800<br>(Reproduction and Fertility<br>Effects)                                      |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOAEL P 30 ppm<br>NOAEL F1 300 ppm<br>NOAEL F2 300 ppm          | Two<br>generation<br>study  | oral:<br>drinking<br>water | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study)                             |

**STOT-single exposure:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Assessment                        | Route of<br>exposure | Target Organs | Remarks |
|---------------------------------|-----------------------------------|----------------------|---------------|---------|
| bronopol<br>52-51-7             | May cause respiratory irritation. |                      |               |         |

**STOT-repeated exposure:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result / Value      | Route of<br>application    | Exposure time /<br>Frequency of<br>treatment | Species | Method                                                                                                        |
|-------------------------------------------------------------|---------------------|----------------------------|----------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | NOAEL > 1.000 mg/kg | oral: gavage               | 92 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)                                      |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOAEL 0,00116 mg/l  | inhalation:<br>dust        | 90 d<br>6 h/d, 5 d/w                         | rat     | equivalent or similar to<br>OECD Guideline 413<br>(Subchronic Inhalation<br>Toxicity: 90-Day)                 |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOAEL 20 mg/kg      | oral: feed                 | 104 w<br>daily                               | rat     | equivalent or similar to<br>OECD Guideline 453<br>(Combined Chronic<br>Toxicity / Carcinogenicity<br>Studies) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOAEL 200 mg/kg     | dermal                     | 91 d<br>6 h/d, 5 d/w                         | rat     | OECD Guideline 411<br>(Subchronic Dermal<br>Toxicity: 90-Day Study)                                           |
| bronopol<br>52-51-7                                         | NOAEL 7 mg/kg       | oral:<br>drinking<br>water | 104 w<br>daily                               | rat     | not specified                                                                                                 |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | NOAEL 150 mg/kg     | oral: gavage               | 28 days<br>daily                             | rat     | OECD Guideline 407<br>(Repeated Dose 28-Day<br>Oral Toxicity in Rodents)                                      |
| 1,2-Benzisothiazol-3(2H)-<br>one<br>2634-33-5               | NOAEL 69 mg/kg      | oral: feed                 | 90 days<br>daily                             | rat     | EPA OPP 82-1 (90-Day<br>Oral Toxicity)                                                                        |
| pyrithione zinc<br>13463-41-7                               | NOAEL 0,5 mg/kg     | oral: gavage               | 104 w<br>daily                               | rat     | OECD Guideline 453<br>(Combined Chronic<br>Toxicity / Carcinogenicity<br>Studies)                             |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOAEL 16,3 mg/kg    | oral:<br>drinking<br>water | 90 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)                                      |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOAEL 0.34 mg/m3    | inhalation:<br>aerosol     | 90 d<br>6 h/d, 5 d/w                         | rat     | OECD Guideline 413<br>(Subchronic Inhalation<br>Toxicity: 90-Day)                                             |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOAEL 2,625 mg/kg   | dermal                     | 90 d<br>6 h/d                                | rat     | EPA OPP 82-3<br>(Subchronic Dermal<br>Toxicity 90 Days)                                                       |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

**SECTION 12: Ecological information****General ecological information:**

Do not empty into drains, soil or bodies of water.

**12.1. Toxicity****Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                          | Exposure time | Species             | Method                                                      |
|-------------------------------------------------------------|---------------|--------------------------------|---------------|---------------------|-------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | LC50          | Toxicity > Water<br>solubility | 48 h          | Leuciscus idus      | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | LC50          | 0,067 mg/l                     | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOEC          | 0,0084 mg/l                    | 35 d          | Pimephales promelas | OECD Guideline 210 (fish<br>early lite stage toxicity test) |
| bronopol<br>52-51-7                                         | LC50          | 41 mg/l                        | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| bronopol<br>52-51-7                                         | NOEC          | 21,5 mg/l                      | 49 d          | Oncorhynchus mykiss | OECD Guideline 210 (fish<br>early lite stage toxicity test) |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | LC50          | 2,15 mg/l                      | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | NOEC          | 0,21 mg/l                      | 30 d          | Oncorhynchus mykiss | OECD Guideline 215 (Fish,<br>Juvenile Growth Test)          |
| pyrithione zinc<br>13463-41-7                               | LC50          | 0,0026 mg/l                    | 96 h          | Pimephales promelas | EPA OPP 72-1 (Fish Acute<br>Toxicity Test)                  |
| pyrithione zinc<br>13463-41-7                               | NOEC          | 0,00112 mg/l                   | 32 d          | Pimephales promelas | OECD Guideline 210 (fish<br>early lite stage toxicity test) |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | LC50          | 0,036 mg/l                     | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | NOEC          | 0,022 mg/l                     | 21 d          | Oncorhynchus mykiss | OECD Guideline 210 (fish<br>early lite stage toxicity test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | LC50          | 0,22 mg/l                      | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOEC          | 0,098 mg/l                     | 28 d          | Oncorhynchus mykiss | OECD Guideline 210 (fish<br>early lite stage toxicity test) |

**Toxicity (aquatic invertebrates):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                   | Value<br>type | Value                          | Exposure time | Species            | Method                                                              |
|---------------------------------------------------|---------------|--------------------------------|---------------|--------------------|---------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                    | EC50          | Toxicity > Water<br>solubility | 48 h          | Daphnia magna      | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)    |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6 | EC50          | 0,65 mg/l                      | 48 h          | Daphnia magna      | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)    |
| bronopol<br>52-51-7                               | EC50          | 1,4 mg/l                       | 48 h          | Daphnia magna      | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)    |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5         | EC50          | 2,9 mg/l                       | 48 h          | Daphnia magna      | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test)    |
| pyrithione zinc<br>13463-41-7                     | EC50          | 0,0063 mg/l                    | 96 h          | Americamysis bahia | EPA OPP 72-3<br>(Estuarine/Marine Fish,<br>Mollusk, or Shrimp Acute |

|                                                             |      |           |      |               | Toxicity Test)                                                   |
|-------------------------------------------------------------|------|-----------|------|---------------|------------------------------------------------------------------|
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | EC50 | 0,42 mg/l | 48 h | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | EC50 | 0,12 mg/l | 48 h | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |

**Chronic toxicity (aquatic invertebrates):**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                          | Exposure time | Species       | Method                                                                       |
|-------------------------------------------------------------|---------------|--------------------------------|---------------|---------------|------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | NOEC          | Toxicity > Water<br>solubility | 21 d          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Chronic<br>Immobilisation Test)           |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | NOEC          | 0,05 mg/l                      | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)                               |
| bronopol<br>52-51-7                                         | NOEC          | 0,27 mg/l                      | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)                               |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | NOEC          | 1,2 mg/l                       | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)                               |
| pyrithione zinc<br>13463-41-7                               | NOEC          | 0,0022 mg/l                    | 21 d          | Daphnia magna | EPA OPP 72-4 (Fish Early<br>Life-Stage/Aquatic<br>Invert.Life-Cycle Studies) |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | NOEC          | 0,0016 mg/l                    | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)                               |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOEC          | 0,0036 mg/l                    | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test)                               |

**Toxicity (Algae):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                          | Exposure time | Species                         | Method                                               |
|-------------------------------------------------------------|---------------|--------------------------------|---------------|---------------------------------|------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | EC50          | Toxicity > Water<br>solubility | 72 h          | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Titanium dioxide<br>13463-67-7                              | NOEC          | Toxicity > Water<br>solubility | 72 h          | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | EC50          | 0,053 mg/l                     | 72 h          | Desmodesmus subspicatus         | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | EC10          | 0,013 mg/l                     | 72 h          | Desmodesmus subspicatus         | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| bronopol<br>52-51-7                                         | EC50          | 0,026 mg/l                     | 72 h          | Desmodesmus subspicatus         | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| bronopol<br>52-51-7                                         | EC10          | 0,013 mg/l                     | 72 h          | Desmodesmus subspicatus         | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | EC50          | 0,1087 mg/l                    | 24 h          | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | EC10          | 0,0264 mg/l                    | 24 h          | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| pyrithione zinc<br>13463-41-7                               | EC50          | 0,0006 mg/l                    | 48 h          | Skeletonema costatum            | EPA OPP 123-3 (Algal<br>Toxicity, Tiers I and II)    |
| pyrithione zinc<br>13463-41-7                               | NOEC          | 0,00004 mg/l                   | 48 h          | Skeletonema costatum            | EPA OPP 123-3 (Algal<br>Toxicity, Tiers I and II)    |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | EC50          | 0,00129 mg/l                   | 48 h          | Navicula pelliculosa            | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | EC10          | 0,000224 mg/l                  | 48 h          | Navicula pelliculosa            | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | EC50          | 0,0052 mg/l                    | 72 h          | Skeletonema costatum            | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | NOEC          | 0,00064 mg/l                   | 48 h          | Skeletonema costatum            | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |

#### Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                          | Exposure time | Species                                                | Method                                                                   |
|-------------------------------------------------------------|---------------|--------------------------------|---------------|--------------------------------------------------------|--------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                              | EC0           | Toxicity > Water<br>solubility | 24 h          | Pseudomonas fluorescens                                | DIN 38412, part 8<br>(Pseudomonas<br>Zellvermehrungshemm-<br>Test)       |
| bronopol<br>52-51-7                                         | EC50          | 43 mg/l                        | 3 h           | activated sludge                                       | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | EC50          | 23 mg/l                        | 3 h           | activated sludge of a<br>predominantly domestic sewage | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |
| pyrithione zinc<br>13463-41-7                               | NOEC          | 0,1 mg/l                       | 3 h           | activated sludge                                       | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | EC20          | 0,97 mg/l                      | 3 h           | activated sludge                                       | OECD Guideline 209<br>(Activated Sludge,<br>Respiration Inhibition Test) |

#### 12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Result                          | Test type | Degradability | Exposure<br>time | Method                                                                            |
|-------------------------------------------------------------|---------------------------------|-----------|---------------|------------------|-----------------------------------------------------------------------------------|
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | not readily biodegradable.      | aerobic   | 25 %          | 28 d             | OECD Guideline 301 F (Ready<br>Biodegradability: Manometric<br>Respirometry Test) |
| bronopol<br>52-51-7                                         | readily biodegradable           | aerobic   | > 70 - 80 %   | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO2 Evolution<br>Test)           |
| bronopol<br>52-51-7                                         | not inherently<br>biodegradable | aerobic   | 50 %          | 45 d             | OECD Guideline 302 B (Inherent<br>biodegradability: Zahn-<br>Wellens/EMPA Test)   |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | not readily biodegradable.      | aerobic   | 42,1 %        | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO2 Evolution<br>Test)           |
| pyrithione zinc<br>13463-41-7                               | not readily biodegradable.      | aerobic   | 39 %          | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO2 Evolution<br>Test)           |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | not readily biodegradable.      | aerobic   | 35 %          | 21 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)           |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | inherently biodegradable        | aerobic   | 100 %         | 28 d             | OECD Guideline 302 B (Inherent<br>biodegradability: Zahn-<br>Wellens/EMPA Test)   |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | readily biodegradable           | aerobic   | > 60 %        | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)           |

### 12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | Bioconcentration factor (BCF) | Exposure time | Temperature | Species                  | Method                                                               |
|-------------------------------------------------------------|-------------------------------|---------------|-------------|--------------------------|----------------------------------------------------------------------|
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | 3,3 - 4,5                     |               |             | Carassius sp.            | not specified                                                        |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | 6,62                          | 56 d          |             | not specified            | other guideline:                                                     |
| pyrithione zinc<br>13463-41-7                               | 8,28                          | 30 d          |             | Crassostrea<br>virginica | OECD Guideline 305 E<br>(Bioaccumulation: Flow-through<br>Fish Test) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | 3,6                           |               |             | calculation              | QSAR (Quantitative Structure<br>Activity Relationship)               |

#### 12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                             | LogPow         | Temperature | Method                                                                                |
|-------------------------------------------------------------|----------------|-------------|---------------------------------------------------------------------------------------|
| 3-iodo-2-propynyl<br>butylcarbamate<br>55406-53-6           | 2,81           |             | not specified                                                                         |
| bronopol<br>52-51-7                                         | 0,15           | 23 °C       | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake<br>Flask Method) |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                   | 0,7            | 20 °C       | EU Method A.8 (Partition Coefficient)                                                 |
| pyrithione zinc<br>13463-41-7                               | 0,9            | 25 °C       | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake<br>Flask Method) |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                   | 2,9            |             | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake<br>Flask Method) |
| Isothiazolinone mixture<br>(C(M)IT/MIT (3:1))<br>55965-84-9 | > -0,71 - 0,75 | 20 °C       | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC<br>Method)        |

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

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.                          | PBT / vPvB                                                                                                                             |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Titanium dioxide<br>13463-67-7                           | According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall<br>not be conducted for inorganic substances. |
| 3-iodo-2-propynyl butylcarbamate<br>55406-53-6           | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |
| bronopol<br>52-51-7                                      | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |
| 1,2-Benzisothiazol-3(2H)-one<br>2634-33-5                | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |
| pyrithione zinc<br>13463-41-7                            | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |
| 2-Octyl-2H-isothiazol-3-one<br>26530-20-1                | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |
| Isothiazolinone mixture (C(M)IT/MIT (3:1))<br>55965-84-9 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very<br>Bioaccumulative (vPvB) criteria.               |

#### 12.6. Endocrine disrupting properties

not applicable

#### 12.7. Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code  
080409

## SECTION 14: Transport information

- 14.1. UN number or ID number**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.4. Packing group**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.5. Environmental hazards**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.6. Special precautions for user**  
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.7. Maritime transport in bulk according to IMO instruments**  
not applicable

## SECTION 15: Regulatory information

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

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):     | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021):      | Not applicable |

### VOC Paints and Varnishes (EU):

|                           |                                    |
|---------------------------|------------------------------------|
| Regulatory Basis:         | Directive 2004/42/EC               |
| Product (sub)category:    | A(i) One-pack performance coatings |
| Phase I (from 1.1.2007):  | 140 g/l                            |
| Phase II (from 1.1.2010): | 140 g/l                            |
| max. VOC content:         | 90 g/l                             |

### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H310 Fatal in contact with skin.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
H360D May damage the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

|             |                                                                                                                   |
|-------------|-------------------------------------------------------------------------------------------------------------------|
| ED:         | Substance identified as having endocrine disrupting properties                                                    |
| EU OEL:     | Substance with a Union workplace exposure limit                                                                   |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148                                                               |
| EU EXPLD 2  | Substance listed in Annex II, Reg (EC) No. 2019/1148                                                              |
| SVHC:       | Substance of very high concern (REACH Candidate List)                                                             |
| PBT:        | Substance fulfilling persistent, bioaccumulative and toxic criteria                                               |
| PBT/vPvB:   | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria |
| vPvB:       | Substance fulfilling very persistent and very bioaccumulative criteria                                            |

### Further information:

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