



**Bollom**  
FIRE PROTECTION

# SAFETY DATA SHEET

Broflame™ Ultra Base Coat

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

### 1.1 Product identifier

**Product name** : Broflame™ Ultra Base Coat  
**Product description** : Paint  
**Product type** : Liquid.  
**UFI** : C5T5-Q32W-4VFF-5JUP  
**Product code** : BLM0008

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

| Identified uses                        |        |
|----------------------------------------|--------|
| Industrial<br>Professional<br>Consumer |        |
| Uses advised against                   | Reason |
| None identified.                       | -      |

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

Bollom Fire Protection  
Portobello Industrial Estate  
Birtley  
County Durham  
United Kingdom  
DH3 2RE  
Telephone no.: +44 (0) 191 4106611  
Fax no.: +44 (0) 191 4920125  
enquiries@tor-coatings.com

**e-mail address of person responsible for this SDS** : rpmeurohas@rustoleum.eu

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

Telephone number Ireland : 809 2166  
Available 8am to 10pm 7 days per week

#### Supplier

Telephone number Ireland : +353 19014670  
Hours of operation : 24 / 7

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Carc. 2, H351  
Repr. 2, H361f  
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

SECTION 2: Hazards identification

See Section 16 for the full text of the H statements declared above.  
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

|                                                                                                                                    |                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictograms                                                                                                                  | :<br>                                                                                                                                                                 |
| Signal word                                                                                                                        | : Warning                                                                                                                                                                                                                                              |
| Hazard statements                                                                                                                  | : H351 - Suspected of causing cancer.<br>H361f - Suspected of damaging fertility.<br>H412 - Harmful to aquatic life with long lasting effects.                                                                                                         |
| <u>Precautionary statements</u>                                                                                                    |                                                                                                                                                                                                                                                        |
| General                                                                                                                            | : P103 - Read carefully and follow all instructions.<br>P102 - Keep out of reach of children.<br>P101 - If medical advice is needed, have product container or label at hand.                                                                          |
| Prevention                                                                                                                         | : P201 - Obtain special instructions before use.<br>P280 - Wear protective gloves, protective clothing and eye or face protection.                                                                                                                     |
| Response                                                                                                                           | : P308 + P313 - IF exposed or concerned: Get medical advice or attention.                                                                                                                                                                              |
| Storage                                                                                                                            | : P405 - Store locked up.                                                                                                                                                                                                                              |
| Disposal                                                                                                                           | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.                                                                                                                             |
| Hazardous ingredients                                                                                                              | :  melamine                                                                                                                                                         |
| Supplemental label elements                                                                                                        | : EUH208 - Contains 1,2-benzisothiazol-3(2H)-one (BIT) and reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)). May produce an allergic reaction. |
| Supplemental label elements : Detergents - Regulation (EC) No 907/2006                                                             | : Not applicable.                                                                                                                                                                                                                                      |
| EU Biocidal Products Regulation (BPR), Article 58(3) Statement                                                                     | : Contains a biocidal product (in-can preservative):(BIT)                                                                                                                                                                                              |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Not applicable.                                                                                                                                                                                                                                      |
| <u>Special packaging requirements</u>                                                                                              |                                                                                                                                                                                                                                                        |
| Containers to be fitted with child-resistant fastenings                                                                            | : Not applicable.                                                                                                                                                                                                                                      |
| Tactile warning of danger                                                                                                          | : Yes, applicable.                                                                                                                                                                                                                                     |

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

 This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Broflame™ Ultra Base Coat

SECTION 2: Hazards identification

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : Contains melamine. May cause endocrine disruption.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Ireland

| Product/ingredient name                                                                                                                                  | Identifiers                                                                                 | %      | Classification                                                                                                                                                 | Specific Conc. Limits, M-factors and ATEs                                                                                                      | Type           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| melamine                                                                                                                                                 | REACH #:<br>01-2119485947-16<br>EC: 203-615-4<br>CAS: 108-78-1                              | <10    | Carc. 2, H351<br>Repr. 2, H361f<br>STOT RE 2, H373<br>(urinary tract)                                                                                          | -                                                                                                                                              | [1] [4]<br>[5] |
| decabromodiphenyl ethane                                                                                                                                 | REACH #:<br>01-2119474877-18<br>EC: 284-366-9<br>CAS: 84852-53-9                            | ≤5     | Not classified.                                                                                                                                                | -                                                                                                                                              | [3]            |
| propane-1,2-diol                                                                                                                                         | REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6                               | ≤1     | Not classified.                                                                                                                                                | -                                                                                                                                              | [2]            |
| Boric acid, zinc salt                                                                                                                                    | EC: 215-566-6<br>CAS: 1332-07-6                                                             | ≤1     | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                                                                                                               | M [Acute] = 1<br>M [Chronic] = 1                                                                                                               | [1] [2]        |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | REACH #:<br>01-2120761540-60<br>EC: 220-120-9<br>CAS: 2634-33-5<br>Index: 613-088-00-6      | <0,036 | Acute Tox. 4, H302<br>Acute Tox. 2, H330<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | ATE [Oral] = 450 mg/kg<br>ATE [Inhalation (dusts and mists)] = 0,21 mg/l<br>Skin Sens. 1, H317: C ≥ 0,036%<br>M [Acute] = 1<br>M [Chronic] = 1 | [1]            |
| pyrithione zinc                                                                                                                                          | REACH #:<br>01-2119511196-46<br>EC: 236-671-3<br>CAS: 13463-41-7                            | <0,01  | Acute Tox. 3, H301<br>Acute Tox. 2, H330<br>Eye Dam. 1, H318<br>Repr. 1B, H360D<br>STOT RE 1, H372<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410         | ATE [Oral] = 221 mg/kg<br>ATE [Inhalation (dusts and mists)] = 0,14 mg/l<br>M [Acute] = 1000<br>M [Chronic] = 10                               | [1]            |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | REACH #:<br>01-2120764691-48<br>CAS: 55965-84-9<br>Index: 613-167-00-5<br>List #: 611-341-5 | <0,001 | Acute Tox. 3, H301<br>Acute Tox. 2, H310<br>Acute Tox. 2, H330<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400      | ATE [Oral] = 64 mg/kg<br>ATE [Dermal] = 92,4 mg/kg<br>ATE [Inhalation (dusts and mists)] = 0,171 mg/l                                          | [1]            |

## SECTION 3: Composition/information on ingredients

|  |  |  |                                                                                                            |                                                                                                                                                                                                                                                                                                                                         |  |
|--|--|--|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  | <p>Aquatic Chronic 1, H410</p> <p>See Section 16 for the full text of the H statements declared above.</p> | <p>Skin Corr. 1C, H314: <math>C \geq 0,6\%</math><br/> Skin Irrit. 2, H315: <math>0,06\% \leq C &lt; 0,6\%</math><br/> Eye Dam. 1, H318: <math>C \geq 0,6\%</math><br/> Eye Irrit. 2, H319: <math>0,06\% \leq C &lt; 0,6\%</math><br/> Skin Sens. 1, H317: <math>C \geq 0,0015\%</math><br/> M [Acute] = 100<br/> M [Chronic] = 100</p> |  |
|--|--|--|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance of equivalent concern
- [5] Substance of equivalent concern - Endocrine disrupting properties

List numbers have no legal significance.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## SECTION 4: First aid measures

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

#### Over-exposure signs/symptoms

- |                     |                                                                                                                               |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : No specific data.                                                                                                           |
| <b>Inhalation</b>   | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| <b>Skin contact</b> | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| <b>Ingestion</b>    | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |

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

- |                            |                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Notes to physician</b>  | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| <b>Specific treatments</b> | : No specific treatment.                                                                                                                                              |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- |                                       |                                                                 |
|---------------------------------------|-----------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | : Use an extinguishing agent suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | : None known.                                                   |

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

- |                                              |                                                                                                                                                                                                                                                                                             |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hazards from the substance or mixture</b> | : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| <b>Hazardous combustion products</b>         | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds<br>metal oxide/oxides                                                                                                                        |

### 5.3 Advice for firefighters

- |                                                       |                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special protective actions for fire-fighters</b>   | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.                                                                                                                                                             |
| <b>Special protective equipment for fire-fighters</b> | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| <b>Additional information</b>                         | : No unusual hazard if involved in a fire.                                                                                                                                                                                                                                                                                                                |

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

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

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Broflame™ Ultra Base Coat

SECTION 7: Handling and storage

Do not store below the following temperature: 0°C (32°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available.  
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits / Biological exposure indices

| Product/ingredient name | Exposure limit values                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| propane-1,2-diol        | NAOSH (Ireland, 4/2024) Notes: Advisory Occupational Exposure Limit Values (OELVs)<br>OELV 8 hours: 10 mg/m³. Form: particulate.<br>OELV 8 hours: 470 mg/m³. Form: vapour and particulates.<br>OELV 8 hours: 150 ppm. Form: vapour and particulates. |
| Boric acid, zinc salt   | NAOSH (Ireland, 4/2024) [borate compounds inorganic] Repr 1B. Notes: Advisory Occupational Exposure Limit Values (OELVs)<br>OELV 8 hours: 2 mg/m³.                                                                                                   |

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name                                                                      | Result                                             | Value             | Effects           |
|----------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------|-------------------|
|  melamine | DNEL - Workers - Long term - Inhalation            | 8,3 mg/m³         | Effects: Systemic |
|                                                                                              | DNEL - General population - Long term - Oral       | 0,42 mg/kg bw/day | Effects: Systemic |
|                                                                                              | DNEL - General population - Long term - Inhalation | 1,5 mg/m³         | Effects: Systemic |
|                                                                                              | DNEL - General population - Long term - Dermal     | 4,2 mg/kg bw/day  | Effects: Systemic |
|                                                                                              | DNEL - Workers - Long term - Inhalation            | 8,3 mg/m³         | Effects: Systemic |



## SECTION 8: Exposure controls/personal protection

|                                                                                                                                                          |                                                                       |                        |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------|-----------------------------|
| decabromodiphenyl ethane                                                                                                                                 | <b>DNEL - Workers - Long term - Dermal</b>                            | 11,8 mg/kg bw/day      | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Short term - Inhalation</b>                       | 82,3 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Short term - Dermal</b>                           | 117 mg/kg bw/day       | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Long term - Inhalation</b>                        | 71 mg/m <sup>3</sup>   | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Consumers - Long term - Inhalation</b> | 17,4 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
| Boric acid, zinc salt                                                                                                                                    | <b>DNEL - General population - Consumers - Long term - Oral</b>       | 5 mg/kg bw/day         | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Oral</b>                   | 2,88 mg/kg bw/day      | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Inhalation</b>             | 9,9 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | <b>DNEL - Workers - Long term - Inhalation</b>                        | 26,8 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Dermal</b>                 | 1439 mg/kg bw/day      | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Long term - Dermal</b>                            | 1893 mg/kg bw/day      | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Long term - Inhalation</b>                        | 6,81 mg/m <sup>3</sup> | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Inhalation</b>             | 1,2 mg/m <sup>3</sup>  | <u>Effects:</u><br>Systemic |
| pyrithione zinc                                                                                                                                          | <b>DNEL - Workers - Long term - Dermal</b>                            | 0,966 mg/kg bw/day     | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Dermal</b>                 | 0,345 mg/kg bw/day     | <u>Effects:</u><br>Systemic |
|                                                                                                                                                          | <b>DNEL - Workers - Long term - Dermal</b>                            | 0,01 mg/kg bw/day      | <u>Effects:</u><br>Systemic |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | <b>DNEL - Workers - Long term - Inhalation</b>                        | 0,02 mg/m <sup>3</sup> | <u>Effects:</u> Local       |
|                                                                                                                                                          | <b>DNEL - Workers - Short term - Inhalation</b>                       | 0,04 mg/m <sup>3</sup> | <u>Effects:</u> Local       |
|                                                                                                                                                          | <b>DNEL - General population - Long term - Inhalation</b>             | 0,02 mg/m <sup>3</sup> | <u>Effects:</u> Local       |
|                                                                                                                                                          | <b>DNEL - General population - Short term - Inhalation</b>            | 0,04 mg/m <sup>3</sup> | <u>Effects:</u> Local       |



## SECTION 8: Exposure controls/personal protection

|  |                                                      |                   |                             |
|--|------------------------------------------------------|-------------------|-----------------------------|
|  | <b>DNEL - General population - Long term - Oral</b>  | 0,09 mg/kg bw/day | <u>Effects:</u><br>Systemic |
|  | <b>DNEL - General population - Short term - Oral</b> | 0,11 mg/kg bw/day | <u>Effects:</u><br>Systemic |

### PNECs

| Product/ingredient name                                                                                                                                  | Result                 | Value             | Remarks |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------|---------|
| melamine                                                                                                                                                 | Fresh water            | 0,64 mg/l         | -       |
|                                                                                                                                                          | Marine water           | 0,064 mg/l        | -       |
|                                                                                                                                                          | Soil                   | 1,7 mg/kg dwt     | -       |
|                                                                                                                                                          | Sediment               | 1,34 mg/kg dwt    | -       |
| decabromodiphenyl ethane                                                                                                                                 | Soil                   | 156 mg/kg dwt     | -       |
|                                                                                                                                                          | Sewage Treatment Plant | 1 mg/l            | -       |
|                                                                                                                                                          | Fresh water sediment   | 100 mg/kg dwt     | -       |
|                                                                                                                                                          | Marine water sediment  | 10 mg/kg dwt      | -       |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | Fresh water            | 0,00403 mg/l      | -       |
|                                                                                                                                                          | Marine water           | 0,000403 mg/l     | -       |
|                                                                                                                                                          | Sewage Treatment Plant | 1,03 mg/l         | -       |
|                                                                                                                                                          | Fresh water sediment   | 0,0499 mg/kg dwt  | -       |
|                                                                                                                                                          | Marine water sediment  | 0,00499 mg/kg dwt | -       |
|                                                                                                                                                          | Soil                   | 3 mg/kg dwt       | -       |
| pyrithione zinc                                                                                                                                          | Fresh water            | 0,00009 mg/l      | -       |
|                                                                                                                                                          | Marine water           | 0,00009 mg/l      | -       |
|                                                                                                                                                          | Sewage Treatment Plant | 0,01 mg/l         | -       |
|                                                                                                                                                          | Marine water sediment  | 0,0095 mg/kg      | -       |
|                                                                                                                                                          | Fresh water sediment   | 0,0095 mg/kg      | -       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Fresh water            | 0,00339 mg/l      | -       |
|                                                                                                                                                          | Marine water           | 0,00339 mg/l      | -       |
|                                                                                                                                                          | Sewage Treatment Plant | 0,23 mg/l         | -       |
|                                                                                                                                                          | Fresh water sediment   | 0,027 mg/kg       | -       |
|                                                                                                                                                          | Marine water sediment  | 0,027 mg/kg       | -       |
|                                                                                                                                                          | Soil                   | 0,01 mg/kg        | -       |

## SECTION 8: Exposure controls/personal protection

### 8.2 Exposure controls

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields

#### Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): nitrile rubber (0.5mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear overalls or long sleeved shirt. (EN 467)

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (EN 141).

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

|                                                |                                                                                                                                                                                                                                             |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Physical state</b>                          | : Liquid.                                                                                                                                                                                                                                   |
| <b>Colour</b>                                  | : White.                                                                                                                                                                                                                                    |
| <b>Odour</b>                                   | : Not available.                                                                                                                                                                                                                            |
| <b>Odour threshold</b>                         | : Not available.                                                                                                                                                                                                                            |
| <b>Melting point/freezing point</b>            | : 0°C [Literature]                                                                                                                                                                                                                          |
| <b>Initial boiling point and boiling range</b> | : >100°C (>212°F) [Literature]                                                                                                                                                                                                              |
| <b>Flammability (solid, gas)</b>               | : Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Non-flammable but will burn on prolonged exposure to flame or high temperature. |
| <b>Lower and upper explosion limit</b>         | : Does not contain sufficient volatile flammable components to form an explosive atmosphere under normal conditions of use.                                                                                                                 |
| <b>Flash point</b>                             | : Not relevant due to nature of the product.                                                                                                                                                                                                |
| <b>Auto-ignition temperature</b>               | : Not relevant due to nature of the product.                                                                                                                                                                                                |
| <b>Decomposition temperature</b>               | : Not available.                                                                                                                                                                                                                            |
| <b>pH</b>                                      | : 7 to 8 [Conc. (% w/w): 100%] [OECD 122]                                                                                                                                                                                                   |
| <b>pH : Justification</b>                      | : Not available.                                                                                                                                                                                                                            |
| <b>Viscosity</b>                               | : Dynamic (room temperature): 1300 to 1600 mPa·s [ASTM D562 [KU]]<br>Kinematic (room temperature): 937 to 1206 mm²/s [calculated.]<br>Kinematic (40°C): Not available.                                                                      |

**Solubility(ies)** :

| Media      | Result  |
|------------|---------|
| cold water | Soluble |
| hot water  | Soluble |

**Solubility in water** : Not available.

**Miscible with water** : Yes.

**Partition coefficient: n-octanol/ water** : Not applicable.

**Vapour pressure** :

| Ingredient name                      | Vapour Pressure at 20°C |     |        | Vapour pressure at 50°C |                |        |
|--------------------------------------|-------------------------|-----|--------|-------------------------|----------------|--------|
|                                      | mm Hg                   | kPa | Method | mm Hg                   | kPa            | Method |
| water                                | 17,5                    | 2,3 |        |                         |                |        |
| Polyphosphoric acids, ammonium salts | 0                       | 0   |        |                         | Not applicable |        |

**Evaporation rate** : <1 (butyl acetate = 1)

**Relative density** : 1,35 to 1,36

**Density** : 1,327 to 1,387 g/cm³ [20°C (68°F)] [DIN 53217]

**Vapour density** : >1 [Air = 1]

**Explosive properties** : Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  
No unusual hazard if involved in a fire.

**Oxidising properties** : Not available.

#### Particle characteristics

**Median particle size** : Not applicable.

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SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

| Product/ingredient name                                                                                                                                  | Result                                                 | Value                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------|
| melamine                                                                                                                                                 | Rat - Oral - LD50                                      | 3161 mg/kg           |
| decabromodiphenyl ethane                                                                                                                                 | Rat - Oral - LD50                                      | 5000 mg/kg           |
|                                                                                                                                                          | Rabbit - Dermal - LD50                                 | 2000 mg/kg           |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | Rat - Male - Oral - LD50                               | 490 mg/kg            |
|                                                                                                                                                          | Rat - Male, Female - Inhalation - LC50 Dusts and mists | 0,5 mg/l [4 hours]   |
|                                                                                                                                                          | Rat - Inhalation - LC50 Dusts and mists                | 0,11 mg/l [4 hours]  |
| pyrithione zinc                                                                                                                                          | Rat - Oral - LD50                                      | 177 mg/kg            |
|                                                                                                                                                          | Rabbit - Dermal - LD50                                 | 100 mg/kg            |
|                                                                                                                                                          | Rat - Inhalation - LC50 Dusts and mists                | 140 mg/m³ [4 hours]  |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Rabbit - Dermal - LD50                                 | 92,4 mg/kg           |
|                                                                                                                                                          | Rat - Oral - LD50                                      | 64 mg/kg             |
|                                                                                                                                                          | Rat - Male, Female - Inhalation - LC50 Dusts and mists | 0,171 mg/l [4 hours] |

|                                                                                                                                                          |                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Conclusion/Summary [Product]</b>                                                                                                                      | : Based on available data, the classification criteria are not met. |
| <b>Ingredient name</b>                                                                                                                                   | <b>Conclusion/Summary</b>                                           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Toxic if swallowed.                                                 |

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SECTION 11: Toxicological information

Acute toxicity estimates

| Product/ingredient name                                                                                                                                  | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| melamine                                                                                                                                                 | 3161         | N/A            | N/A                      | N/A                         | N/A                                 |
| decabromodiphenyl ethane                                                                                                                                 | 5000         | N/A            | N/A                      | N/A                         | N/A                                 |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | 450          | N/A            | N/A                      | N/A                         | 0,21                                |
| pyrithione zinc                                                                                                                                          | 221          | N/A            | N/A                      | N/A                         | 0,14                                |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | 64           | 92,4           | N/A                      | N/A                         | 0,171                               |

Skin corrosion/irritation

| Product/ingredient name                                                                                                                                  | Result                          | Exposure                             | Observation                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------|----------------------------------|
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Human - Skin - Severe irritant  | Amount/concentration applied: 0.01 % | -                                |
|                                                                                                                                                          | Rabbit - Skin - Severe irritant | -                                    | Observation period: 1 to 4 hours |

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

| Ingredient name                                                                                                                                                                                | Conclusion/Summary                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 1,2-benzisothiazol-3(2H)-one (BIT)<br>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Causes skin irritation.<br>Fatal in contact with Skin |

Serious eye damage/eye irritation

| Product/ingredient name                                                                                                                                  | Result                          | Exposure                             | Observation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------|-------------|
| melamine                                                                                                                                                 | Rabbit - Eyes - Mild irritant   | Amount/concentration applied: 500 mg | -           |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Rabbit - Eyes - Severe irritant | -                                    | -           |

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

| Ingredient name                                                                                                                                                                                | Conclusion/Summary                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1,2-benzisothiazol-3(2H)-one (BIT)<br>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Risk of serious damage to eyes.<br>Risk of serious damage to eyes. |

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SECTION 11: Toxicological information

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

| Ingredient name                                                                                                                                          | Conclusion/Summary                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | May be fatal if swallowed and enters airways. |

Respiratory or skin sensitization

| Product/ingredient name                                                                                                                                  | Species - Route of exposure | Result              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------|
| Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Guinea pig - skin           | Result: Sensitising |
|                                                                                                                                                          | Guinea pig - skin           | Result: Sensitising |

Skin

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

| Ingredient name                                                                                                                                          | Conclusion/Summary     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Strong Skin Sensitizer |

Respiratory

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

| Ingredient name                                                                                                                                          | Conclusion/Summary                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | Based on available data, the classification criteria are not met. |

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Suspected of causing cancer.

Reproductive toxicity

Not available.

SECTION 11: Toxicological information

**Conclusion/Summary [Product]** : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Result                          |
|-------------------------|---------------------------------|
| melamine                | STOT RE 2, H373 (urinary tract) |
| pyrithione zinc         | STOT RE 1, H372                 |

Aspiration hazard

Not available.

Information on likely routes of exposure

Routes of entry anticipated: Oral, Inhalation, Eyes.  
Routes of entry not anticipated: Dermal.

Potential acute health effects

|              |                                                     |
|--------------|-----------------------------------------------------|
| Eye contact  | : No known significant effects or critical hazards. |
| Inhalation   | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Ingestion    | : No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

|              |                                                                                                                               |
|--------------|-------------------------------------------------------------------------------------------------------------------------------|
| Eye contact  | : No specific data.                                                                                                           |
| Inhalation   | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| Skin contact | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |
| Ingestion    | : Adverse symptoms may include the following:<br>reduced foetal weight<br>increase in foetal deaths<br>skeletal malformations |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

|                             |                  |
|-----------------------------|------------------|
| Potential immediate effects | : Not available. |
| Potential delayed effects   | : Not available. |

Long term exposure

|                             |                  |
|-----------------------------|------------------|
| Potential immediate effects | : Not available. |
| Potential delayed effects   | : Not available. |

Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : Based on available data, the classification criteria are not met.

|                       |                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------|
| General               | : No known significant effects or critical hazards.                                      |
| Carcinogenicity       | : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. |
| Mutagenicity          | : No known significant effects or critical hazards.                                      |
| Reproductive toxicity | : Suspected of damaging fertility.                                                       |



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SECTION 11: Toxicological information

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : May cause endocrine disruption.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name          | Result                                                | Species                                    |
|----------------------------------|-------------------------------------------------------|--------------------------------------------|
| 2-benzisothiazol-3(2H)-one (BIT) | Acute - EC50<br>0,067 mg/l [72 hours]                 | Algae                                      |
|                                  | Acute - EC50 - Fresh water<br>2,94 mg/l [48 hours]    | Daphnia spec. - Daphnia spec.              |
|                                  | Acute - EC50 - Marine water<br>0,9893 mg/l [96 hours] | Crustaceans                                |
|                                  | Chronic - NOEC<br>0,21 mg/l [28 days]                 | Fish - Rainbow trout (oncorhynchus mykiss) |
|                                  | Chronic - NOEC<br>1,2 mg/l [21 days]                  | Daphnia spec. - Daphnia spec.              |
|                                  | Chronic - NOEC<br>90 mg/l [20 days]                   | Aquatic plants                             |
|                                  | Acute - LC50<br>8 to 13 mg/l [96 hours]               | Fish                                       |
|                                  | Acute - LC50 - Fresh water<br>2,18 mg/l [96 hours]    | Fish - Rainbow trout (oncorhynchus mykiss) |
|                                  | Acute - EC50<br>0,11 mg/l [72 hours]                  | Algae - Algae                              |
|                                  | Chronic - NOEL<br>0,0403 mg/l [72 hours]              | Algae - Algae                              |
|                                  | Acute - LC50 - Fresh water<br>167 ppb [96 hours]      | Fish - Rainbow trout,donaldson trout       |
|                                  | Acute - EC50 - Fresh water<br>97 ppb [48 hours]       | Daphnia spec. - Water flea                 |
|                                  | Acute - EC50 - Fresh water<br>80 µg/l [48 hours]      | Crustaceans - Water flea                   |
|                                  | Acute - EC50 - Fresh water<br>61 µg/l [48 hours]      | Daphnia spec. - Water flea - Nauplii       |
|                                  | Acute - EC50 - Marine water<br>0,51 µg/l [96 hours]   | Algae - Diatom                             |
|                                  | Chronic - EC10 - Marine water<br>0,36 µg/l [96 hours] | Algae - Diatom                             |
| pyrithione zinc                  |                                                       |                                            |

SECTION 12: Ecological information

|                                                                                                                                                          |                                                             |                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------|
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | <b>Chronic - NOEC - Fresh water</b><br>2,7 ppb [21 days]    | Daphnia spec. - Water flea                 |
|                                                                                                                                                          | <b>Acute - EC50 - Fresh water</b><br>8,25 ppb [48 hours]    | Daphnia spec. - Water flea                 |
|                                                                                                                                                          | <b>Acute - LC50 - Fresh water</b><br>2,68 ppb [96 hours]    | Fish - Fathead minnow                      |
|                                                                                                                                                          | <b>Acute - EC50 - Fresh water</b><br>0,037 mg/l [48 hours]  | Algae                                      |
|                                                                                                                                                          | <b>Chronic - NOEC</b><br>0,18 mg/l [21 days]                | Daphnia spec. - Daphnia spec.              |
|                                                                                                                                                          | <b>Acute - EC50 - Fresh water</b><br>0,16 mg/l [48 hours]   | Daphnia spec.                              |
|                                                                                                                                                          | <b>Acute - LC50 - Fresh water</b><br>0,19 mg/l [96 hours]   | Fish - Rainbow trout (oncorhynchus mykiss) |
|                                                                                                                                                          | <b>Acute - NOEC - Marine water</b><br>0,004 mg/l [48 hours] | Algae                                      |
|                                                                                                                                                          | <b>Chronic - NOEC - Fresh water</b><br>0,02 mg/l [38 days]  | Fish - Rainbow trout (oncorhynchus mykiss) |

**Conclusion/Summary [Product]** : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

| Product/ingredient name                                                                                                                                  | Test | Result                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------|
| 2-benzisothiazol-3(2H)-one (BIT)                                                                                                                         | -    | >90% [1 days] - Readily  |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | -    | >60% [28 days] - Readily |
|                                                                                                                                                          | -    | <50% [10 days]           |

**Conclusion/Summary [Product]** : This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

| Product/ingredient name                                                                                                                                  | Aquatic half-life | Photolysis | Biodegradability |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|------------------|
| 2-benzisothiazol-3(2H)-one (BIT)                                                                                                                         | -                 | -          | Readily          |
| pyrithione zinc                                                                                                                                          | -                 | -          | Inherent         |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | -                 | -          | Inherent         |

SECTION 12: Ecological information

12.3 Bioaccumulative potential

| Product/ingredient name                                                                                                                                  | LogP <sub>ow</sub> | BCF             | Potential |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-----------|
| melamine                                                                                                                                                 | -1,22              | <3,8            | Low       |
| decabromodiphenyl ethane                                                                                                                                 | 3,55               | <25             | Low       |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | 0,64               | -               | Low       |
| pyrithione zinc                                                                                                                                          | 0,9                | 11 [OECD 305 E] | Low       |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | -0.83 to 0.75      | -               | Low       |

12.4 Mobility in soil

Soil/water partition coefficient

| Product/ingredient name            | logK <sub>oc</sub> | K <sub>oc</sub> |
|------------------------------------|--------------------|-----------------|
| melamine                           | 1,7                | 45,8075         |
| decabromodiphenyl ethane           | 5,6                | 366680          |
| 1,2-benzisothiazol-3(2H)-one (BIT) | 1,9                | 73,142          |

Results of PMT and vPvM assessment

| Product/ingredient name                                                                                                                                  | PMT | P  | M  | T  | vPvM | vP | vM |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|------|----|----|
| melamine                                                                                                                                                 | No  | No | No | No | No   | No | No |
| decabromodiphenyl ethane                                                                                                                                 | No  | No | No | No | No   | No | No |
| Boric acid, zinc salt                                                                                                                                    | No  | No | No | No | No   | No | No |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | No  | No | No | No | No   | No | No |
| pyrithione zinc                                                                                                                                          | No  | No | No | No | No   | No | No |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | No  | No | No | No | No   | No | No |

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

| Product/ingredient name                                                                                                                                  | PBT | P   | B   | T   | vPvB | vP  | vB  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|-----|-----|
| melamine                                                                                                                                                 | No  | N/A | No  | Yes | No   | N/A | No  |
| decabromodiphenyl ethane                                                                                                                                 | No  | Yes | Yes | No  | Yes  | Yes | Yes |
| Boric acid, zinc salt                                                                                                                                    | No  | No  | No  | No  | No   | No  | No  |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | No  | N/A | N/A | No  | N/A  | N/A | N/A |
| pyrithione zinc                                                                                                                                          | No  | N/A | No  | Yes | No   | N/A | No  |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | N/A | N/A | N/A | Yes | N/A  | N/A | N/A |

Regulation (EC) No. 1272/2008 [CLP]

SECTION 12: Ecological information

| Product/ingredient name                                                                                                                                  | PBT | P  | B  | T  | vPvB | vP | vB |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|------|----|----|
| melamine                                                                                                                                                 | No  | No | No | No | No   | No | No |
| decabromodiphenyl ethane                                                                                                                                 | No  | No | No | No | No   | No | No |
| Boric acid, zinc salt                                                                                                                                    | No  | No | No | No | No   | No | No |
| 1,2-benzisothiazol-3(2H)-one (BIT)                                                                                                                       | No  | No | No | No | No   | No | No |
| pyrithione zinc                                                                                                                                          | No  | No | No | No | No   | No | No |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (C(M)IT/MIT (3:1)) | No  | No | No | No | No   | No | No |

**Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP]** : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : May cause endocrine disruption.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

European waste catalogue (EWC)

| Waste code | Waste designation                                                                 |
|------------|-----------------------------------------------------------------------------------|
| 08 01 11*  | waste paint and varnish containing organic solvents or other hazardous substances |

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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SECTION 14: Transport information

|                                 | ADR/RID        | ADN            | IMDG           | IATA           |
|---------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number or ID number     | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name    | -              | -              | -              | -              |
| 14.3 Transport hazard class(es) | -              | -              | -              | -              |
| 14.4 Packing group              | -              | -              | -              | -              |
| 14.5 Environmental hazards      | No.            | No.            | No.            | No.            |

Additional information ADR

Additional information ADN

Additional information IMDG

Additional information IATA

14.6 Special precautions for user : Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)  
Annex XIV - List of substances subject to authorisation  
Annex XIV  
None of the components are listed.  
Substances of very high concern

| Intrinsic property                                                                                                                                      | Ingredient name          | Status      | Reference number    | Date of revision |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------|---------------------|------------------|
| PvB<br>Substance of equivalent concern for human health<br>Substance of equivalent concern for environment<br>Endocrine disrupting properties for human | decabromodiphenyl ethane | Candidate   | -                   | 05/11/2025       |
|                                                                                                                                                         | melamine                 | Recommended | 12th recommendation | 08/02/2024       |
|                                                                                                                                                         | melamine                 | Recommended | 12th recommendation | 08/02/2024       |
|                                                                                                                                                         | melamine                 | Candidate   | -                   | -                |

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**SECTION 15: Regulatory information**

|                                                                 |          |           |   |   |
|-----------------------------------------------------------------|----------|-----------|---|---|
| health<br>Endocrine disrupting<br>properties for<br>environment | melamine | Candidate | - | - |
|-----------------------------------------------------------------|----------|-----------|---|---|

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

| Product/ingredient name   | %   | Designation [Usage] |
|---------------------------|-----|---------------------|
| Broflame™ Ultra Base Coat | ≥90 | 3                   |

**Labelling** : Not applicable.

Synthetic polymer microparticles - Designation 78

**Generic identity of polymer(s)** : Not applicable.

**Total percentage of synthetic polymer microparticles** : Not applicable.

Other EU regulations

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** : IIA/i. One-pack performance coatings. EU limit value for this product : 140g/l (2010.) This product contains a maximum of 30 g/l VOC.

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

**Explosive precursors** : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

Ireland

**Biocidal products regulation** : Not applicable.

| Product/ingredient name | List name | Name on list | Classification | Notes |
|-------------------------|-----------|--------------|----------------|-------|
|                         |           |              |                |       |

SECTION 15: Regulatory information

**References** : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)  
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)  
Safety, Health and Welfare at Work (General Application) Regulations 2007  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

**International regulations**  
**Stockholm Convention on Persistent Organic Pollutants**

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

**Rotterdam Convention on Prior Informed Consent (PIC)**  
Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

| List name   | Ingredient name | Status |
|-------------|-----------------|--------|
| Not listed. |                 |        |

**CN code** : 3209 10 00 00

**Inventory list**

|                                |                                                                                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Australia</b>               | : At least one component is not listed.                                                                                    |
| <b>Canada</b>                  | : At least one component is not listed.                                                                                    |
| <b>China</b>                   | : At least one component is not listed.                                                                                    |
| <b>Eurasian Economic Union</b> | : <b>Russian Federation inventory</b> : Not determined.                                                                    |
| <b>Japan</b>                   | : <b>Japan inventory (CSCL)</b> : At least one component is not listed.<br><b>Japan inventory (ISHL)</b> : Not determined. |
| <b>New Zealand</b>             | : Not determined.                                                                                                          |
| <b>Philippines</b>             | : Not determined.                                                                                                          |
| <b>Republic of Korea</b>       | : At least one component is not listed.                                                                                    |
| <b>Taiwan</b>                  | : At least one component is not listed.                                                                                    |
| <b>Thailand</b>                | : Not determined.                                                                                                          |
| <b>Turkey</b>                  | : Not determined.                                                                                                          |
| <b>United States</b>           | : Not determined.                                                                                                          |
| <b>Viet Nam</b>                | : Not determined.                                                                                                          |

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration



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SECTION 16: Other information

RRN = REACH Registration Number  
SGG = Segregation Group  
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification                                             | Justification                                                  |
|------------------------------------------------------------|----------------------------------------------------------------|
| Carc. 2, H351<br>Repr. 2, H361f<br>Aquatic Chronic 3, H412 | Calculation method<br>Calculation method<br>Calculation method |

Full text of abbreviated H statements

Ireland

|                                       |   |                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Full text of abbreviated H statements | : | H301<br>H302<br>H310<br>H314<br>H315<br>H317<br>H318<br>H330<br>H351<br>H360D<br>H361f<br>H372<br>H373<br><br>H400<br>H410<br>H412 | Toxic if swallowed.<br>Harmful if swallowed.<br>Fatal in contact with skin.<br>Causes severe skin burns and eye damage.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Fatal if inhaled.<br>Suspected of causing cancer.<br>May damage the unborn child.<br>Suspected of damaging fertility.<br>Causes damage to organs through prolonged or repeated exposure.<br>May cause damage to organs through prolonged or repeated exposure.<br><br>Very toxic to aquatic life.<br>Very toxic to aquatic life with long lasting effects.<br>Harmful to aquatic life with long lasting effects. |
|---------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Full text of classifications [CLP/GHS]

|   |                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| : | Acute Tox. 2<br>Acute Tox. 3<br>Acute Tox. 4<br>Aquatic Acute 1<br>Aquatic Chronic 1<br>Aquatic Chronic 3<br>Carc. 2<br>Eye Dam. 1<br>Repr. 1B<br>Repr. 2<br>Skin Corr. 1C<br>Skin Irrit. 2<br>Skin Sens. 1A<br>STOT RE 1<br>STOT RE 2 | ACUTE TOXICITY - Category 2<br>ACUTE TOXICITY - Category 3<br>ACUTE TOXICITY - Category 4<br>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1<br>LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3<br>CARCINOGENICITY - Category 2<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1<br>REPRODUCTIVE TOXICITY - Category 1B<br>REPRODUCTIVE TOXICITY - Category 2<br>SKIN CORROSION/IRRITATION - Category 1C<br>SKIN CORROSION/IRRITATION - Category 2<br>SKIN SENSITISATION - Category 1A<br>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Date of printing : 26/11/2025  
Date of issue/ Date of revision : 24/11/2025  
Date of previous issue : 28/10/2025  
Version : 7  
Notice to reader

Broflame™ Ultra Base Coat

## SECTION 16: Other information

**IMPORTANT NOTE:** The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

**MANUFACTURER'S DISCLAIMER:** the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.