



2025/930

22.5.2025

**COMMISSION IMPLEMENTING REGULATION (EU) 2025/930**

**of 21 May 2025**

**granting a Union authorisation for the single biocidal product 'FernoX Biocide AF10' in accordance with Regulation (EU) No 528/2012 of the European Parliament and of the Council**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products <sup>(1)</sup>, and in particular Article 44(5), first subparagraph, thereof,

Whereas:

- (1) On 22 June 2017, MacDermid Hungary Kft submitted an application to the European Chemicals Agency ('the Agency') in accordance with Article 43(1) of Regulation (EU) No 528/2012 and Article 4 of Commission Implementing Regulation (EU) No 414/2013 <sup>(2)</sup> for Union authorisation of the same single biocidal product, as referred to in Article 1 of Implementing Regulation (EU) No 414/2013, named 'FernoX Biocide AF10', of product-types 6, 11, 12 and 13, as described in Annex V to Regulation (EU) No 528/2012. The related reference product is the single biocidal product 'No 06-05: Preservative 06-05' (Authorisation number EU-0031652-0025), which is a part of the related reference biocidal product family 'LANXESS CMIT/MIT biocidal product family'. The application was recorded under case number BC-UP032735-15 in the Register for Biocidal Products. The related reference biocidal product family 'LANXESS CMIT/MIT biocidal product family' was authorised by Commission Implementing Regulation (EU) 2024/2750 <sup>(3)</sup>, with authorisation number EU-0031652-0000.
- (2) The single biocidal product 'FernoX Biocide AF10' contains CMIT/MIT (3:1) as the active substance, included in the Union list of approved active substances referred to in Article 9(2) of Regulation (EU) No 528/2012 for product-types 6, 11, 12 and 13.
- (3) On 19 July 2024, the Agency submitted to the Commission its opinion <sup>(4)</sup> and the draft summary of the biocidal product characteristics ('SPC') of 'FernoX Biocide AF10' in accordance with Article 6 of Implementing Regulation (EU) No 414/2013.
- (4) In its opinion, the Agency concludes that the proposed differences between the single biocidal product 'FernoX Biocide AF10' and the related single biocidal product 'No 06-05: Preservative 06-05', which is a part of the related reference biocidal product family 'LANXESS CMIT/MIT biocidal product family', are limited to information which can be subject to an administrative change in accordance with Commission Implementing Regulation (EU) No 354/2013 <sup>(5)</sup>, and that based on the assessment of the related reference biocidal product family 'LANXESS CMIT/MIT biocidal product family' and subject to compliance with the draft SPC, the same single biocidal product 'FernoX Biocide AF10' meets the conditions laid down in Article 19(1) of Regulation (EU) No 528/2012.

<sup>(1)</sup> OJ L 167, 27.6.2012, p. 1, ELI: <http://data.europa.eu/eli/reg/2012/528/oj>.

<sup>(2)</sup> Commission Implementing Regulation (EU) No 414/2013 of 6 May 2013 specifying a procedure for the authorisation of same biocidal products in accordance with Regulation (EU) No 528/2012 of the European Parliament and of the Council (OJ L 125, 7.5.2013, p. 4, ELI: [http://data.europa.eu/eli/reg\\_impl/2013/414/oj](http://data.europa.eu/eli/reg_impl/2013/414/oj)).

<sup>(3)</sup> Commission Implementing Regulation (EU) 2024/2750 of 25 October 2024 granting a Union authorisation for the biocidal product family 'LANXESS CMIT/MIT biocidal product family' in accordance with Regulation (EU) No 528/2012 of the European Parliament and of the Council (OJ L, 2024/2750, 28.10.2024, ELI: [http://data.europa.eu/eli/reg\\_impl/2024/2750/oj](http://data.europa.eu/eli/reg_impl/2024/2750/oj)).

<sup>(4)</sup> European Chemicals Agency opinion of 19 July 2024 on the Union authorisation of the same single biocidal product 'FernoX Biocide AF10', <https://echa.europa.eu/opinions-on-union-authorisation>.

<sup>(5)</sup> Commission Implementing Regulation (EU) No 354/2013 of 18 April 2013 on changes of biocidal products authorised in accordance with Regulation (EU) No 528/2012 of the European Parliament and of the Council. (OJ L 109, 19.4.2013, p. 4, ELI: [http://data.europa.eu/eli/reg\\_impl/2013/354/oj](http://data.europa.eu/eli/reg_impl/2013/354/oj)).

- (5) On 10 January 2025, the Agency transmitted to the Commission the revised SPC of 'FernoX Biocide AF10' in all the official languages of the Union in accordance with Article 44(4) of Regulation (EU) No 528/2012.
- (6) The Commission concurs with the opinion of the Agency and considers it therefore appropriate to grant a Union authorisation for the same single biocidal product 'FernoX Biocide AF10'.
- (7) The expiry date of the authorisation should be aligned with the expiry date of the authorisation of the related reference biocidal product family 'LANXESS CMIT/MIT biocidal product family'.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Biocidal Products,

HAS ADOPTED THIS REGULATION:

#### *Article 1*

A Union authorisation with authorisation number EU-0032996-0000 is granted to MacDermid Hungary Kft for the making available on the market and use of the same single biocidal product 'FernoX Biocide AF10' in accordance with the summary of the biocidal product characteristics set out in the Annex.

The Union authorisation is valid from 11 June 2025 until 31 October 2034.

#### *Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 21 May 2025.

*For the Commission*  
*The President*  
Ursula VON DER LEYEN

## ANNEX

**Summary of product characteristics for a biocidal product**

Fernox Biocide AF10

**Product type(s)**

PT06: Preservatives for products during storage

PT11: Preservatives for liquid-cooling and processing systems

PT12: Slimicides

PT13: Working or cutting fluid preservatives

**Authorisation number:** EU-0032996-0000**R4BP asset number:** EU-0032996-0000**1. ADMINISTRATIVE INFORMATION****1.1. Trade name(s) of the product**

Trade name(s)	Fernox Biocide AF10 Fernox Biocide F7
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**1.2. Authorisation holder**

Name and address of the authorisation holder	Name	MacDermid Hungary Kft
	Address	Jedlik Anyos utca 2 2330 Dunaharaszti HU
Authorisation number	EU-0032996-0000	
R4BP asset number	EU-0032996-0000	
Date of the authorisation	11 June 2025	
Expiry date of the authorisation	31 October 2034	

**1.3. Manufacturer(s) of the product**

Name of manufacturer	Lanxess Deutschland GmbH, BU Material Protection Products
Address of manufacturer	Kennedyplatz 1 D-50569 Köln Germany
Location of manufacturing sites	Lanxess Deutschland GmbH, BU Material Protection Products site 1 Rheinuferstraße 7-9 47829 Krefeld Germany
Name of manufacturer	Lanxess Pte. Ltd.
Address of manufacturer	16, Joo Koon Crescent 629018 Singapore Singapore

Location of manufacturing sites	Lanxess Pte. Ltd. site 1 16, Joo Koon Crescent 629018 Singapore Singapore
Name of manufacturer	LANXESS Chemical (China) Co., Ltd
Address of manufacturer	No. 318, Huanghai Road 213127 Xinbei District, Changzhou, Jiangsu Province China
Location of manufacturing sites	LANXESS Chemical (China) Co., Ltd site 1 No. 318, Huanghai Road 213127 Xinbei District, Changzhou, Jiangsu Province China
Name of manufacturer	LANXESS Corporation
Address of manufacturer	Neville Island, 3499 Grand Avenue 15225 Pittsburgh, PA United States (the)
Location of manufacturing sites	LANXESS Corporation site 1 Neville Island, 3499 Grand Avenue 15225 Pittsburgh, PA United States (the)
Name of manufacturer	LANXESS India Pvt. Ltd.
Address of manufacturer	Jhagadia Industrial Estate, Plot No 748/2/A, GIDC 393110 District Bharuch, Jhagadia India
Location of manufacturing sites	LANXESS India Pvt. Ltd. site 1 Plot No 748/2/A, GIDC 393110 District Bharuch, Jhagadia India
Name of manufacturer	Vera Chimie Productions
Address of manufacturer	Zone Industrielle du Broteau, 2 Rue Du Broteau 69540 Irigny France
Location of manufacturing sites	Vera Chimie Productions site 1 Zone Industrielle du Broteau, 2 Rue Du Broteau 69540 Irigny France

1.4. **Manufacturer(s) of the active substance(s)**

Active substance	Mixture of 5-chloro-2-methyl-2H- isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol- 3-one (EINECS 220-239-6) (Mixture of CMIT/MIT)
Name of manufacturer	Dalian Bio-Chem Co., Ltd.
Address of manufacturer	10F, R&F Center, No. 6 Gangxing Road, Zhongshan District 116001 Dalian China
Location of manufacturing sites	Dalian Bio-Chem Co., Ltd. site 1 Dalian Songmudao Chemical Industry Zone, Puwan New District, 116308 Dalian, Liaoning China

2. **PRODUCT COMPOSITION AND FORMULATION**2.1. **Qualitative and quantitative information on the composition of the product**

Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (EINECS 247-500-7) and 2-methyl-2H-isothiazol-3-one (EINECS 220-239-6) (Mixture of CMIT/MIT)		active substance	55965-84-9		2,4 % (w/w)

2.2. **Type(s) of formulation**

AL Any other liquid

3. **HAZARD AND PRECAUTIONARY STATEMENTS**

Hazard statements	<p>H314: Causes severe skin burns and eye damage.</p> <p>H317: May cause an allergic skin reaction.</p> <p>H410: Very toxic to aquatic life with long lasting effects.</p> <p>EUH071: Corrosive to the respiratory tract.</p>
Precautionary statements	<p>P272: Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273: Avoid release to the environment.</p> <p>P280: Wear protective gloves.</p> <p>P280: Wear protective clothing.</p> <p>P280: Wear eye protection.</p> <p>P280: Wear face protection.</p> <p>P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</p> <p>P310: Immediately call a doctor.</p> <p>P310: Immediately call a POISON CENTER.</p> <p>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].</p> <p>P310: Immediately call a POISON CENTER.</p> <p>P310: Immediately call a doctor.</p> <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310: Immediately call a POISON CENTER.</p> <p>P310: Immediately call a doctor.</p> <p>P362+P364: Take off contaminated clothing and wash it before reuse.</p>

	<p>P405: Store locked up.</p> <p>P501: Dispose of contents in accordance with all local, regional, national and international regulations.</p> <p>P501: Dispose of container in accordance with all local, regional, national and international regulations..</p> <p>P391: Collect spillage.</p>
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#### 4. AUTHORISED USE(S)

##### 4.1. Use description

Table 1

#### In-can preservation of washing and cleaning fluids (PT 6)

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Washing and cleaning fluids</p>
Application method(s)	<p>Method: Manual and automatic dosing</p> <p>Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.</p>
Application rate(s) and frequency	<p>Application rate: 261 – 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected in such a way that a pure CMIT/MIT concentration of 3,7 to less than 15 ppm is maintained.</p> <p>Number and timing of application: Frequency: Single application</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

4.1.1. *Use-specific instructions*

See general directions for use.

4.1.2. *Use-specific risk mitigation measures*

See general directions for use.

4.1.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.1.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.1.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.2. **Use description**

Table 2

**In-can preservation of paints and coatings (PT 6)**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: - Scientific name: - Common name: yeasts Development stage: - Scientific name: - Common name: fungi Development stage: -
Field(s) of use	indoor use Paints and coatings
Application method(s)	Method: Manual and automatic dosing Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.
Application rate(s) and frequency	Application rate: 782 – 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 11,1 to 15 ppm. End products which are used by the general public shall contain less than 15 ppm active ingredient. Number and timing of application: Frequency: Single application

Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

#### 4.2.1. Use-specific instructions

See general directions for use.

#### 4.2.2. Use-specific risk mitigation measures

See general directions for use.

#### 4.2.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

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#### 4.2.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

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#### 4.2.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

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### 4.3. Use description

Table 3

#### In-can preservation of fluids used in paper production (PT 6)

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Fluids used in paper production (e.g. pigment slurries)</p>
Application method(s)	<p>Method: Manual and automatic dosing</p> <p>Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.</p>



Application rate(s) and frequency	Application rate: 521 – 3 000 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 7,4 to 30 ppm. Number and timing of application: Frequency: Single application
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

4.3.1. *Use-specific instructions*

See general directions for use.

4.3.2. *Use-specific risk mitigation measures*

See general directions for use.

4.3.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.3.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.3.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.4. **Use description**

Table 4

**In-can preservation of fluids used in textile production (PT 6)**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: -  Scientific name: - Common name: yeasts Development stage: -  Scientific name: - Common name: fungi Development stage: -
Field(s) of use	indoor use  Fluids used in textile production

Application method(s)	Method: Manual and automatic dosing Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.
Application rate(s) and frequency	Application rate: 261 – 3 000 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 3,7 to 30 ppm. Number and timing of application: Frequency: Single application
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

4.4.1. *Use-specific instructions*

See general directions for use.

4.4.2. *Use-specific risk mitigation measures*

See general directions for use.

4.4.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.4.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.4.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.5. **Use description**

Table 5

**In-can preservation of fluids used in leather production (PT 6)**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: -  Scientific name: - Common name: yeasts Development stage: -  Scientific name: - Common name: fungi Development stage: -

Field(s) of use	indoor use Fluids used in leather production
Application method(s)	Method: Manual and automatic dosing  Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.
Application rate(s) and frequency	Application rate: 521 – 3 000 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 7,4 to 30 ppm.  Number and timing of application: Frequency: Single application
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

#### 4.5.1. Use-specific instructions

See general directions for use.

#### 4.5.2. Use-specific risk mitigation measures

See general directions for use.

#### 4.5.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

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#### 4.5.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

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#### 4.5.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

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#### 4.6. Use description

Table 6

#### In-can preservation of glues and adhesives (PT 6)

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-

Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Glues and adhesives</p>
Application method(s)	<p>Method: Manual and automatic dosing</p> <p>Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.</p>
Application rate(s) and frequency	<p>Application rate: 261 – 3 000 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 3,7 to 30 ppm.</p> <p>End products which are used by the general public shall contain less than 15 ppm active ingredient.</p> <p>Number and timing of application: Frequency: Single application</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<p>— Bottle (50 – 1 500 ml), HDPE, opaque</p> <p>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</p> <p>— Drum (206 and 220 litre), HDPE, opaque</p> <p>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</p>

#### 4.6.1. Use-specific instructions

See general directions for use.

#### 4.6.2. Use-specific risk mitigation measures

See general directions for use.

#### 4.6.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

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#### 4.6.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

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#### 4.6.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

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## 4.7. Use description

Table 7

**In-can preservation of concrete additives and building material such as fillers/sealants, plasters and wax emulsions (PT 6) for indoor use**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Concrete additives and building material such as fillers/sealants, plasters and wax emulsions intended for indoor use</p>
Application method(s)	<p>Method: Manual and automatic dosing</p> <p>Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.</p>
Application rate(s) and frequency	<p>Application rate: 521 - 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 7,4 to 15 ppm.</p> <p>End products which are used by the general public shall contain less than 15 ppm active ingredient.</p> <p>Number and timing of application: Frequency: Single application</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<p>— Bottle (50 – 1 500 ml), HDPE, opaque</p> <p>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</p> <p>— Drum (206 and 220 litre), HDPE, opaque</p> <p>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</p>

## 4.7.1. Use-specific instructions

See general directions for use.

## 4.7.2. Use-specific risk mitigation measures

See general directions for use.

4.7.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.7.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.7.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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#### 4.8. Use description

Table 8

#### **In-can preservation of polymer dispersions/emulsions intended for use in paints and coatings, glues and adhesives, building materials, fluids used in textile production and plant protection products (PT 6)**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Polymer dispersions/emulsions intended for use in paints and coatings, glues and adhesives, building materials, fluids used in textile production and plant protection products. Aim of application is the preservation of polymer mixtures which are consecutively used for formulation of paints, glues and further matrices (covered by PT 6).</p>
Application method(s)	<p>Method: Manual and automatic dosing</p> <p>Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.</p>
Application rate(s) and frequency	<p>Application rate: 261 - 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 3,7 to 15 ppm.</p> <p>End products which are used by the general public shall contain less than 15 ppm active ingredient.</p> <p>Number and timing of application: Frequency: Single application</p>

Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

4.8.1. *Use-specific instructions*

See general directions for use.

4.8.2. *Use-specific risk mitigation measures*

See general directions for use.

4.8.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.8.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.8.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.9. **Use description**

Table 9

**In-can preservation of mineral slurries (PT 6)**

Product type	PT06: Preservatives for products during storage
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: -
Field(s) of use	indoor use  Mineral slurries, e.g. CaCO <sub>3</sub> -slurries as used for instance in paper industry and other industrial branches.
Application method(s)	Method: Manual and automatic dosing  Detailed description: The biocidal product shall be homogeneously incorporated into the matrix to be protected. The biocidal product is dosed in the mixing vessel during the waterborne system production, usually as a last ingredient.
Application rate(s) and frequency	Application rate: 104 - 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration 1,48 to 15 ppm.  Number and timing of application: Frequency: Single application

Category(ies) of users	industrial
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

4.9.1. *Use-specific instructions*

See general directions for use.

4.9.2. *Use-specific risk mitigation measures*

See general directions for use.

4.9.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.9.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.9.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.10. **Use description**

Table 10

**Preservation of cooling fluids in open recirculating systems ( PT 11)**

Product type	PT11: Preservatives for liquid-cooling and processing systems
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: algae Development stage: -</p> <p>Scientific name: - Common name: Legionella Development stage: -</p>



Field(s) of use	indoor use Dosing stations may be placed outdoor (roofed or in container). a. Fluids in open recirculating liquid-cooling systems with discharge to the municipal sewer (preventive). b. For curative treatment in cooling water circuits already affected.
Application method(s)	Method: dosing directly into the system Detailed description: The biocidal product is dosed directly into the system to be protected. Solutions of biocidal product are automatically dosed in the water of the circuit during the flow.
Application rate(s) and frequency	Application rate: a. Preventive: 51,8 – 1 500 mg product/kg matrix to be preserved. For preventive treatment in cooling water circuits, the biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 0,735 to 15 ppm. b. Curative: 309,9 - 1 500 mg product/kg matrix to be preserved. For curative treatment in cooling water circuits, the biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 4,4 to 15 ppm. Number and timing of application: Frequency: a. Preventive: Number of additions per week depends on the state of the unit being treated. b. Curative: 2 - 3 times a week until an acceptable microbial contamination is reached. An acceptable microbial contamination and the measurement thereof should be in line with the users 'hygiene management system' in place. Contact time for curative use against bacteria (incl. legionella), fungi and yeast: 24 hours, against algae: 48.
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

#### 4.10.1. Use-specific instructions

See general directions for use.

#### 4.10.2. Use-specific risk mitigation measures

The use is restricted to small cooling systems with a maximum blowdown of 2 m<sup>3</sup>/h. Waste water must be discharged to the municipal sewer or purified in an on-site industrial sewage treatment plant including a biological treatment step. The product can only be applied when the cooling towers are equipped with drift eliminators that reduce drift with at least 99%.

See general directions for use.

4.10.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.10.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.10.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

-

#### 4.11. Use description

Table 11

#### Preservation of cooling fluids in closed systems (PT 11)

Product type	PT11: Preservatives for liquid-cooling and processing systems
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: algae Development stage: -</p> <p>Scientific name: - Common name: Legionella Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Dosing stations may be placed outdoor (roofed or in container).</p> <p>a. Fluids in closed recirculating liquid-cooling systems with discharge to the municipal sewer (preventive).</p> <p>b. For curative treatment in cooling water circuits already affected.</p>
Application method(s)	<p>Method: dosing directly into the system</p> <p>Detailed description: The biocidal product is dosed directly into the system to be protected. Solutions of biocidal product are automatically dosed in the water of the circuit during the flow.</p>

Application rate(s) and frequency	<p>Application rate:</p> <p>a. Preventive: 51,8 – 1 500 mg product/kg matrix to be preserved. For preventive treatment against bacteria (incl. legionella), fungi and yeast in cooling water circuits, the biocidal product shall be incorporated into product to be protected leading to a pure CMIT/MIT concentration of 0,735 to 15 ppm, for algae a pure CMIT/MIT concentration of 1,42 to 15 ppm shall be used.</p> <p>b. Curative: 309,9 - 1 500 mg product/kg matrix to be preserved. For curative treatment in cooling water circuits, the biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 4,4 to 15 ppm.</p> <p>Number and timing of application:</p> <p>Frequency:</p> <p>a. Preventive: Number of additions per week depends on the state of the unit being treated.</p> <p>b. Curative: 2 - 3 times a week until an acceptable microbial contamination is reached. An acceptable microbial contamination and the measurement thereof should be in line with the users 'hygiene management system' in place.</p> <p>Contact time for curative use against bacteria (incl. legionella), fungi and yeast: 24 hours, against algae: 48 hours.</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<p>— Bottle (50 – 1 500 ml), HDPE, opaque</p> <p>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</p> <p>— Drum (206 and 220 litre), HDPE, opaque</p> <p>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</p>

#### 4.11.1. *Use-specific instructions*

See general directions for use.

#### 4.11.2. *Use-specific risk mitigation measures*

See general directions for use.

#### 4.11.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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#### 4.11.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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#### 4.11.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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## 4.12. Use description

Table 12

**Preservation of other liquids in e.g. air conditioning systems, air washers and pasteurizers (PT 11)**

Product type	PT11: Preservatives for liquid-cooling and processing systems
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: algae Development stage: -</p> <p>Scientific name: - Common name: Legionella Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Dosing stations may be placed outdoor (roofed or in container). To protect water and other liquids in air conditioning systems, air washers, humidifiers, evaporate condensers, stationary sprinklers, water spray extinguishing systems and pasteurizers, from microbial growth.</p>
Application method(s)	<p>Method: dosing directly into the system</p> <p>Detailed description: The biocidal product is dosed directly into the system to be protected. Solutions of biocidal product are automatically dosed in the water of the circuit during the flow.</p>
Application rate(s) and frequency	<p>Application rate:</p> <p>a. Preventive: 51,8 – 1 500 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into liquids used in air conditioning systems, air washers, humidifiers, evaporate condensers, membrane systems, stationary sprinkler, water spray extinguishing systems and pasteurizers to be protected leading to a pure CMIT/MIT concentration of 0,735 to 15 ppm for preventive treatment against bacteria (incl. legionella), fungi and yeast, for preventive treatment against algae a pure CMIT/MIT concentration of 1,42 to 15 ppm shall be used.</p> <p>b. Curative: 309,9 - 1 500 mg product/kg matrix to be preserved. For curative treatment a pure CMIT/MIT concentration of 4,4 to 15 ppm shall be used.</p>

	Number and timing of application: Frequency: Single or multiple application (number of additions depends on the state of the unit being treated)  Contact time for curative use against bacteria (incl. legionella), fungi and yeast 24 hours, against algae 48 hours.
Category(ies) of users	industrial
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

#### 4.12.1. Use-specific instructions

See general directions for use.

#### 4.12.2. Use-specific risk mitigation measures

See general directions for use.

#### 4.12.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

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#### 4.12.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

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#### 4.12.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

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#### 4.13. Use description

Table 13

#### Preservation of membrane module solutions (PT 11)

Product type	PT11: Preservatives for liquid-cooling and processing systems
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	Scientific name: - Common name: bacteria Development stage: -  Scientific name: - Common name: fungi Development stage: -  Scientific name: - Common name: yeasts Development stage: -

Field(s) of use	indoor use  Membrane module solutions. Conservation / Preservation of the water in membrane units used in water pre-treatment preparation during production shutdown after cleaning. The biocides are applied for preservation of process fluids used for non-food membrane units/systems (e.g. reverse osmosis and ultrafiltration membranes), which are widely used in the water pre-treatment preparation (non-food, non potable water, non-medical). Membrane units are used in different industries (wastewater, surface technologies, sea water desalination, etc.). These systems are recirculating.
Application method(s)	Method: dosing directly into the system  Detailed description: The biocidal product is dosed directly into the system to be protected. Solutions of biocidal product are automatically dosed in the water of the circuit during the flow.
Application rate(s) and frequency	Application rate:  725,4 – 1 700 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected, leading to a pure CMIT/MIT concentration of 10,3 to 17 ppm.  Number and timing of application: - Frequency: Single or multiple application (number of additions depends on the state of the unit being treated)
Category(ies) of users	industrial
Pack sizes and packaging material	— Bottle (50 – 1 500 ml), HDPE, opaque — Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque — Drum (206 and 220 litre), HDPE, opaque — Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque

#### 4.1.3.1. Use-specific instructions

During the shutdown of production, it is recommended to counteract microbiological growth inside the membrane elements. Before the shutdown, the plant shall be cleaned first, to remove all sorts of deposits like carbonates, salts, silica, organic matter or biomass. For this purpose, specialized membrane cleaners are used. After cleaning, the plant is flushed with permeate quality water until neutral pH is achieved. Only after these cleaning steps, CMIT/MIT containing water is reaching the plant and is regularly circulated by slow pumping. The biocidal product shall be added to the fill-water (permeate quality), to avoid microbiological growth during longer shut downs. During longer shut downs, the fill-water shall be regularly circulated by slow pumping and sampled to check for a microbiological re-contamination. A shift in pH can be a first indication of a re-contamination by microbiology. In this case the fill-up solution shall be replaced.

The dose strongly depends on the formulation and intended use of the product to which the preservative is added. Therefore, the user shall determine dosage requirements for their specific matrix/system to be preserved. The lowest effective dose shall be used.

See general directions for use.

4.13.2. *Use-specific risk mitigation measures*

See general directions for use.

4.13.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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4.13.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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4.13.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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4.14. **Use description**

Table 14

**Preservation of white water circuits in paper industry (PT 12)**

Product type	PT12: Slimicides
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>Preservation of white water circuits in paper industry.</p> <p>a. To protect white water circuits in paper machines (preventive) against bacteria.</p> <p>b. For curative treatment in of white water circuits in paper machines already affected against bacteria and fungi.</p> <p>Aim of the application is to prevent or combat slime formation on pipework, and surfaces of materials and equipment in the paper area.</p>
Application method(s)	<p>Method: Dosing directly into the system (Shock / Continuous dosing).</p> <p>Detailed description: The biocidal product is dosed directly into the system to be protected. (Shock / Continuous dosing). Solutions of the biocidal product are automatically added by means of a dosing pump and pipes directly in the circuit (head box, mixing chest, collecting sump, broke, etc.), in intermittent or shock dosage.</p>

Application rate(s) and frequency	<p>Application rate:</p> <p>a. Preventive: 52,15 – 1 500 mg product/kg matrix to be preserved (strongly dependent on actual system being treated). For preventive treatment (maintenance) in white water circuits (short circulation), the biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 0,74 to 15 ppm. This refers to max. 10,6 g a.i./ton paper.</p> <p>b. Curative: 517,6 – 1 500 mg product/kg matrix to be preserved (strongly dependent on actual system being treated). For curative treatment (shock dose) in white water circuits (short circulation), the biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 7,35 – 15 ppm.</p> <p>Number and timing of application: - Frequency: The number of additions per week depends on the state of the unit being treated. The addition frequency of biocidal product in shock dosage is 1 to 6 times per day. Contact time for curative use: 24 hours.</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

#### 4.14.1. Use-specific instructions

See general directions for use.

#### 4.14.2. Use-specific risk mitigation measures

Application is only allowed in paper factories that comply with the Industrial Emission Directive 2010/75/EU where wastewater is purified in an on-site industrial sewage treatment plant including a biological treatment step in accordance to the Best Available Techniques (BAT) as prescribed in the BAT-reference document (BREF) for the production of pulp, paper and board. The effluent must be diluted at least 200 times. Paper factories that are exempted from the Industrial Emission Directive must discharge to the municipal sewer.

See general directions for use.

#### 4.14.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

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#### 4.14.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

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4.14.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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#### 4.15. Use description

Table 15

#### Preservation of liquids used to treat or cut metal and glass (PT 13)

Product type	PT13: Working or cutting fluid preservatives
Where relevant, an exact description of the authorised use	-
Target organism(s) (including development stage)	<p>Scientific name: - Common name: bacteria Development stage: -</p> <p>Scientific name: - Common name: yeasts Development stage: -</p> <p>Scientific name: - Common name: fungi Development stage: -</p>
Field(s) of use	<p>indoor use</p> <p>For use as a protective agent in liquids used to treat or cut metal and glass. Aim of application is to prevent microbial deterioration caused by bacteria, fungi or yeasts.</p>
Application method(s)	<p>Method: dosing directly into the system</p> <p>Detailed description: The biocidal product is added to the emulsion already formed. The biocide is added mechanical or fully automated with a timer. For tank-side addition, the biocidal products are added with an automated dosing pump and specific pipes into the collecting sump where the metal working fluids flow. The product introduction shall be done below the water level to enable a fast mixing and reduce the biocide exposure risk. The dosage is done for 30-60 minutes.</p>
Application rate(s) and frequency	<p>Application rate: 1 669,0 - 3 000 mg product/kg matrix to be preserved. The biocidal product shall be incorporated into the matrix to be protected leading to a pure CMIT/MIT concentration of 23,7 to 30 ppm.</p> <p>Number and timing of application: - Frequency: 1-7 times a week</p>
Category(ies) of users	industrial ; professional
Pack sizes and packaging material	<ul style="list-style-type: none"> <li>— Bottle (50 – 1 500 ml), HDPE, opaque</li> <li>— Jerry can (5, 10, 20, 25, 30 and 60 litre), HDPE, opaque</li> <li>— Drum (206 and 220 litre), HDPE, opaque</li> <li>— Intermediate bulk container (IBC) (1 000 litre), HDPE, opaque</li> </ul>

#### 4.15.1. *Use-specific instructions*

See general directions for use.

#### 4.15.2. *Use-specific risk mitigation measures*

See general directions for use.

#### 4.15.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

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#### 4.15.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

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#### 4.15.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

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### 5. **GENERAL DIRECTIONS FOR USE <sup>(1)</sup>**

#### 5.1. **Instructions for use**

##### **General instructions**

Preliminary tests to determine suitability, compatibility and optimal concentration are recommended prior to the use of the product in a new application. For more technical information, see the currently valid product information sheet which will be provided to customers upon request.

The product labels give instructions on the dosage of the product.

##### **General use information**

##### **PT 6**

For the in-can preservation of washing and cleaning fluids, paints and coatings, fluids used in paper, textile and leather production, as well as glues and adhesives, concrete additives and building materials (e.g. fillers/sealants, plasters, wax emulsions), polymer dispersions/ emulsions (intended for use in paints, coatings, glues, adhesives, building materials and fluids used in textile production) and the treatment of mineral slurries.

The product shall be homogeneously incorporated into the matrix to be protected.

The dose strongly depends on the formulation and intended use of the product to which the preservative is added. Therefore, the user shall determine dosage requirements for their specific matrix/system to be preserved. The lowest effective dose shall be used.

##### **PT 11**

For use as a biocide for the preservation of cooling fluids in circulating systems and other liquids in e.g. air conditioning systems, air washers and pasteurizers from infestation with harmful organisms such as bacteria (including Legionella), fungi, yeasts and algae. Furthermore, the applications covered by PT 11 comprise the preservation of membrane module solutions.

Heavily contaminated units shall be cleaned prior to treatment.

The biocidal product is added to the water circuit to be treated at a point at which a rapid and even distribution of the biocide can be ensured.

The microbiocidal effect begins immediately after metering.

The dose strongly depends on the formulation and intended use of the product to which the preservative is added. Therefore, the user shall determine dosage requirements for their specific matrix/system to be preserved. The lowest effective dose shall be used. Due to variation in the different systems and matrices (organic load, microbial contamination, slime forming, temperature, pH, etc.) accurate measurements by chemical and microbiological tests shall be carried out to determine the effective dose for the specific location or system.

#### PT 12

For use as a biocide for the preservation of white water circuits in paper machines. Aim of the application is to prevent or combat slime formation (as caused by bacteria and fungi) on pipework and surfaces of materials and equipment in the paper area.

The microbiocidal effect begins immediately after metering.

The biocidal product is added to the white water circuit in paper machines to be treated at a point at which a rapid and even distribution of the biocide can be ensured.

The dose strongly depends on the formulation and intended use of the product to which the preservative is added. Therefore, the user shall determine dosage requirements for their specific matrix/system to be preserved. The lowest effective dose shall be used.

#### PT 13

For use as a protective agent for the preservation of liquids used to treat or cut metal and glass. Aim of application is to prevent microbial deterioration caused by bacteria, fungi or yeasts.

A ready-to-use biocidal product, without former dilution or formulation), is directly applied into the ready to use metalworking fluid cycle to control microbial deterioration and to maintain the correct function of the metalworking fluid.

The microbiocidal effect begins immediately after metering

The biocidal product is added to the metalworking circuit to be treated at a point at which a rapid and even distribution of the biocide can be ensured.

The dose strongly depends on the formulation and intended use of the product to which the preservative is added. Therefore, the user shall determine dosage requirements for their specific matrix/system to be preserved. The lowest effective dose shall be used.

### 5.2. Risk mitigation measures

During product handling:

Wear protective gloves consistent with European Standard EN ISO 374 or equivalent, coverall (Chemical protection clothes type 6) consistent with European Standard EN ISO 13034 or equivalent and eye or face protection (recommended splash goggles or face shield) consistent with European Standard EN ISO 16321 or equivalent).

In case of C(M)IT/MIT concentrations  $\geq 15$  ppm:

During product handling, application and post-application: Wear protective chemical resistant gloves consistent with European Standard EN ISO 374 or equivalent and a protective coverall (at least type 6) consistent with European Standard EN 13034 or equivalent which is impermeable for the biocidal product.

Equipment should preferably be cleaned with water. Dilute rinsing water sufficiently before disposal via a wastewater treatment plant.

Only vent waste air to the atmosphere via suitable separators or scrubbers. No special fire or explosion protection measures necessary.

Required Personal Protection Equipment is described in Safety Data Sheet.

5.3. **Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment**

***First aid measures***

IF SWALLOWED: Immediately rinse mouth. Give something to drink, if exposed person is able to swallow. Do NOT induce vomiting. Call 112/ambulance for medical assistance.

IF INHALED: Move to fresh air and keep at rest in a position comfortable for breathing.

If symptoms: Call 112/ambulance for medical assistance.

If no symptoms: Call a POISON CENTRE or a doctor.

IF ON SKIN: Immediately wash skin with plenty of water. Thereafter take off all contaminated clothing and wash it before reuse. Continue to wash the skin with water for 15 minutes. Call a POISON CENTRE or a doctor.

IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Call 112/ambulance for medical assistance.

***Particular environmental risks***

Product containers must be carefully handled, stored and transported to prevent damage to the containers and leakage of the product into soil, air and water. The biocidal product is harmful to aquatic organisms. The product is biodegradable following dilution.

5.4. **Instructions for safe disposal of the product and its packaging**

***Disposal information***

Check whether re-use of the product in the packaging is possible. Pack or seal product waste and contaminated empty containers, label, and discharge in accordance with refuse disposal acts.

In the case of larger amounts of product in the packaging, discuss with the supplier of the product. The recipient of contaminated empty containers must be informed of the possible risks due to product residues. In the case of disposal within the EU, use the respective valid waste code in accordance with the European Waste Catalogue (EWC). The producer of the waste is responsible for assigning sector- and process-specific waste codes to their waste in accordance with the European Waste Catalogue.

5.5. **Conditions of storage and shelf-life of the product under normal conditions of storage**

Shelf-life: 12 months.

Store in tightly sealed original containers. Protect from frost

6. **OTHER INFORMATION**

With respect to the "Category (ies) of users" note: "Professionals (including industrial users) means trained professionals if this is required by national legislation."

**Resistance management for intended applications (PT 11, 12, 13):**

- avoidance of under-dosing;
- frequent detection of efficacy and of biocide content in the industrial systems to assure maintenance of correct CMIT/MIT concentration;
- for new applications, preliminary tests to determine the suitability, compatibility and optimal application concentration are strongly recommended;
- under difficult conditions alternation of active ingredients, i.e. rotation with other biocides, also combination with other products may be useful.

Full titles of EN standards and legislation referred to in section 5.2:

EN ISO 374 – Protective gloves against dangerous chemicals and micro-organisms.

EN ISO 13034 - Protective clothing against liquid chemicals - Performance requirements for chemical protective clothing offering limited protective performance against liquid chemicals (Type 6 and Type PB [6] equipment)

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(<sup>1</sup>) Instructions for use, risk mitigation measures and other directions for use under this section are valid for any authorised uses.

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