

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

# SAFETY DATA SHEET

**Central Heating Protector F1** 

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

1.1 Product identifier

**Product name** : Central Heating Protector F1

**Product code** 57843

**Product description** : Not available.

**Product type** : Liquid.

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

Restricted to professional users.

**Material uses** : Water-boiler treatment. 1.3 Details of the supplier of the safety data sheet

**Supplier Fernox** 

2 Genesis Business Park

**Albert Drive Sheerwater** 

Woking GU21 5RW

Information contact : +44 (0) 330 100 7750

+44 (0) 330 100 7751

europeanregulatory@macdermid.com

1.4 Emergency telephone number

**Supplier** 

**Telephone number** : +44 (0) 330 100 7750

**Hours of operation** 24/7

# **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Date of issue/Date of revision : 30.11.2016

**Product definition** : Mixture

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

Not classified.

Ingredients of unknown

toxicity

Ingredients of unknown

ecotoxicity

Classification according to Directive 1999/45/EC [DPD]

**Europe** 



2/20

# SECTION 2: Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

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

#### 2.2 Label elements

**Hazard pictograms** 

Signal word : No signal word.

: No known significant effects or critical hazards. **Hazard statements** 

**Precautionary statements** 

: Not applicable. **Prevention** : Not applicable. Response **Storage** : Not applicable. : Not applicable. **Disposal** 

**Hazardous ingredients** 

Supplemental label : Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

elements

#### 2.3 Other hazards

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

Date of issue/Date of revision : 30.11.2016

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

: Mixture Substance/mixture

|  |  |               | Classification  |  |      |
|--|--|---------------|---|--|------|
| Product/ingredient name                                    | Identifiers  | %             | 67/548/EEC  | Regulation (EC) No.<br>1272/2008 [CLP]                               | Туре |
| Europe   |  |               |   |  |      |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22   | Acute Tox. 4, H302   | [1]  |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53   | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                        |      |
|  |  |               | See Section 16 for<br>the full text of the R-<br>phrases declared<br>above. | See Section 16 for the full text of the H statements declared above. |      |
| Austria  |  |               |   |  |      |
| <b>2</b> ,2',2"-nitrilotriethanol                          | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.   | Not classified.  | [2]  |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.   | Not classified.  | [2]  |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22   | Acute Tox. 4, H302   | [1]  |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53   | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                        |      |
| Belgium  |  |               |   |  |      |
|  |  |               |   |  |      |

Date of issue/Date of revision : 30.11.2016

3/20

# SECTION 3: Composition/information on ingredients

| SECTION 3: Con   | nposition/informa   | ation or      | n ingredients                |   |     |
|--|---|---------------|------------------------------|---|-----|
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6                | ≥10 -<br><25  | Not classified.              | Not classified.   | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1] |
| Bulgaria   |   |               |                              |   |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1] |
| Croatia  | CAS. 95-14-7  |               | K02/00                       | Aqualic Chronic 2, H411   |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1                                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319                          | [1] |
| propane-1,2-diol   | CAS: 95-14-7<br>REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6 | ≥1 - <3       | Not classified.              | Aquatic Chronic 2, H411<br>Not classified.                      | -   |
| Czech Republic   |   |               |                              |   |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6                | ≥10 -<br><25  | Not classified.              | Not classified.   | [2] |
| Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-       | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1] |
| Denmark  |   |               | . 132/33                     | 7.44.4.4.6.4.6.4.6.4.6.4.6.4.6.4.6.4.6.4                        |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6                | ≥10 -<br><25  | Not classified.              | Not classified.   | [2] |
| Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-       | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1                                 | ≥1 - <2.<br>5 |                              | Acute Tox. 4, H302  | [1] |
|  | CAS: 95-14-7  |               | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |     |

Date of issue/Date of revision : 30.11.2016

4/20

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

| Estonia  |  |               |                              |   |     |
|--|--|---------------|------------------------------|---|-----|
| <b>2</b> ,2',2"-nitrilotriethanol                          | REACH #:<br>01-2119486482-31<br>EC: 203-049-8                    | ≥10 -<br><25  | Not classified.              | Not classified.   | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | CAS: 102-71-6<br>REACH #:<br>01-2119489495-21<br>EC: 231-551-7   | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | CAS: 10102-40-6<br>REACH #:<br>01-2119979079-20                  | ≥1 - <2.<br>5 | Xn; R22                      | Acute Tox. 4, H302  | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |     |
| Finland  |  |               |                              |   |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.              | Not classified.   | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22                      | Acute Tox. 4, H302  | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |     |
| France   |  |               |                              |   |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7    | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1] |
| Germany  |  |               | 1.102/00                     | 7.144440 011101110 2, 11111                                     |     |
| benzotriazole  | REACH #:   | ≥1 - <2.      | Xn; R22                      | Acute Tox. 4, H302  | [1] |
|  | 01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                | 5             | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |     |
| Greece   |  |               |                              |   |     |
| Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-       | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7    | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1] |
| Hungary  |  |               |                              |   |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7                    | ≥3 - <5       | Not classified.              | Not classified.   | [2] |
| benzotriazole  | CAS: 10102-40-6<br>REACH #:<br>01-2119979079-20<br>EC: 202-394-1 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36           | Acute Tox. 4, H302 Eye Irrit. 2, H319                           | [1] |
|  |  |               |                              |   |     |
|  | CAS: 95-14-7   |               | R52/53                       | Aquatic Chronic 2, H411   |     |

Date of issue/Date of revision : 30.11.2016

5/20

| SECTION 3: Composition/information on ingredient | <b>SECTION 3:</b> | Composition | /information | on ingredient |
|--|-------------------|-------------|--------------|---------------|
|--|-------------------|-------------|--------------|---------------|

| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31  | ≥10 -<br><25  | Not classified.              | Not classified.   | [2]     |
|--|---|---------------|------------------------------|---|---------|
|  | EC: 203-049-8<br>CAS: 102-71-6  | 120           |                              |   |         |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2]     |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53 | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411 | [1]     |
| propane-1,2-diol   | CAS: 95-14-7<br>REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6 | ≥1 - <3       | Not classified.              | Not classified.   | [2]     |
| Italy  |   |               |                              |   |         |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1                                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36           | Acute Tox. 4, H302 Eye Irrit. 2, H319                           | [1]     |
|  | CAS: 95-14-7  |               | R52/53                       | Aquatic Chronic 2, H411   |         |
| Latvia   |   |               |                              |   |         |
| sebacic acid   | REACH #:<br>01-2119519212-52<br>EC: 203-845-5<br>CAS: 111-20-6                | ≥5 -<br><10   | Not classified.              | Not classified.   | [2]     |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1                                 | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36           | Acute Tox. 4, H302 Eye Irrit. 2, H319                           | [1] [2] |
| propane-1,2-diol   | CAS: 95-14-7<br>REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6 | ≥1 - <3       | R52/53<br>Not classified.    | Aquatic Chronic 2, H411<br>Not classified.                      | [2]     |
| Lithuania  | 0/10.0/ 00 0  |               |                              |   |         |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6                | ≥10 -<br><25  | Not classified.              | Not classified.   | [2]     |
| sebacic acid   | REACH #:<br>01-2119519212-52<br>EC: 203-845-5<br>CAS: 111-20-6                | ≥5 -<br><10   | Not classified.              | Not classified.   | [2]     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.              | Not classified.   | [2]     |
| benzotriazole  | REACH #:<br>01-2119979079-20  | ≥1 - <2.<br>5 | Xn; R22                      | Acute Tox. 4, H302  | [1]     |
|  | EC: 202-394-1<br>CAS: 95-14-7   |               | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |         |
| propane-1,2-diol   | REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6                 | ≥1 - <3       | Not classified.              | Not classified.   | [2]     |
| Netherlands  |   |               |                              |   |         |
| benzotriazole  | REACH #:<br>01-2119979079-20  | ≥1 - <2.<br>5 | Xn; R22                      | Acute Tox. 4, H302  | [1]     |
|  | EC: 202-394-1<br>CAS: 95-14-7   |               | Xi; R36<br>R52/53            | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                   |         |

Date of issue/Date of revision : 30.11.2016

6/20

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

| 1  |  |               | 19.04.01160                          | <u> </u>   | ſ   |
|--|--|---------------|--------------------------------------|--|-----|
| Norway   |  |               |                                      |  |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8  | ≥10 -<br><25  | Not classified.                      | Not classified.  | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | CAS: 102-71-6<br>REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6              | ≥3 - <5       | Not classified.                      | Not classified.  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20   | ≥1 - <2.<br>5 | Xn; R22                              | Acute Tox. 4, H302   | [1] |
| propane-1,2-diol   | EC: 202-394-1<br>CAS: 95-14-7<br>REACH #:<br>01-2119456809-23<br>EC: 200-338-0<br>CAS: 57-55-6 | ≥1 - <3       | Xi; R36<br>R52/53<br>Not classified. | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411<br>Not classified. | [2] |
| Poland   | CAS. 57-55-6   |               |                                      |  |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7  | ≥3 - <5       | Not classified.                      | Not classified.  | [2] |
| benzotriazole  | CAS: 10102-40-6<br>REACH #:<br>01-2119979079-20  | ≥1 - <2.<br>5 | Xn; R22                              | Acute Tox. 4, H302   | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7  |               | Xi; R36<br>R52/53                    | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                    |     |
| Portugal   |  |               |                                      |  |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6                                 | ≥10 -<br><25  | Not classified.                      | Not classified.  | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6                               | ≥3 - <5       | Not classified.                      | Not classified.  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20   | ≥1 - <2.<br>5 | Xn; R22                              | Acute Tox. 4, H302   | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7  |               | Xi; R36<br>R52/53                    | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411                    |     |
| Romania  |  |               |                                      |  |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6                               | ≥3 - <5       | Not classified.                      | Not classified.  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7                                  | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53         | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411  | [1] |
| Slovakia   |  |               |                                      |  |     |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7  | ≥3 - <5       | Not classified.                      | Not classified.  | [2] |
| benzotriazole  | CAS: 10102-40-6<br>REACH #:<br>01-2119979079-20<br>EC: 202-394-1<br>CAS: 95-14-7               | ≥1 - <2.<br>5 | Xn; R22<br>Xi; R36<br>R52/53         | Acute Tox. 4, H302  Eye Irrit. 2, H319  Aquatic Chronic 2, H411  | [1] |
| Slovenia   |  |               |                                      |  |     |
|  |  |               |                                      |  |     |
|  |  |               |                                      |  |     |

| Central Heating Protector F1                      |  |              |                 |                   | 1/20 |
|---|--|--------------|-----------------|-------------------|------|
| SECTION 3: Composition/information on ingredients |  |              |                 |                   |      |
| 2,2',2"-nitrilotriethanol                         | 01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6 | ≥10 -<br><25 | Not classified. | Not classified.   | [2]  |
| Martine de la Company (Marcon 100 N               | DEAOLL#  | NO .F        | NI - 4 - I !C'I | N I - 4 - 1 !C' I | 101  |

| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.   | Not classified.                                  | [2] |
|--|--|---------------|-------------------|--|-----|
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.   | Not classified.                                  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22           | Acute Tox. 4, H302                               | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53 | Eye Irrit. 2, H319<br>Aquatic Chronic 2,<br>H411 |     |
| Spain  |  |               |                   |  |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.   | Not classified.                                  | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.   | Not classified.                                  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22           | Acute Tox. 4, H302                               | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53 | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411    |     |
| Sweden   |  |               |                   |  |     |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.   | Not classified.                                  | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7<br>CAS: 10102-40-6 | ≥3 - <5       | Not classified.   | Not classified.                                  | [2] |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22           | Acute Tox. 4, H302                               | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53 | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411    |     |
| Switzerland  |  |               |                   |  | rol |
| 2,2',2"-nitrilotriethanol                                  | REACH #:<br>01-2119486482-31<br>EC: 203-049-8<br>CAS: 102-71-6   | ≥10 -<br><25  | Not classified.   | Not classified.                                  | [2] |
| Molybdate (MoO42-),<br>sodium, hydrate (1:2:<br>2), (T-4)- | REACH #:<br>01-2119489495-21<br>EC: 231-551-7                    | ≥3 - <5       | Not classified.   | Not classified.                                  | [2] |
| benzotriazole  | CAS: 10102-40-6<br>REACH #:<br>01-2119979079-20                  | ≥1 - <2.      | Xn; R22           | Acute Tox. 4, H302                               | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    | 3             | Xi; R36<br>R52/53 | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411    |     |
| Turkey   |  |               |                   |  |     |
| benzotriazole  | REACH #:<br>01-2119979079-20                                     | ≥1 - <2.<br>5 | Xn; R22           | Acute Tox. 4, H302                               | [1] |
|  | EC: 202-394-1<br>CAS: 95-14-7                                    |               | Xi; R36<br>R52/53 | Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411    |     |
| United Kingdom (UK)  |  |               |                   |  |     |
|  |  |               |                   |  |     |
|  |  |               | A MacDann         | aid Performance Solutions Rus                    |     |

2015/830

# SECTION 3: Composition/information on ingredients

| Molybdate (MoO42-),   | REACH #:                                      | ≥3 - <5  | Not classified. | Not classified.    | [2] |
|-----------------------|---|----------|-----------------|--------------------|-----|
| sodium, hydrate (1:2: | 01-2119489495-21                              |          |                 |                    |     |
| 2), (T-4)-            | EC: 231-551-7                                 |          |                 |                    |     |
|                       | CAS: 10102-40-6                               |          |                 |                    |     |
| benzotriazole         | REACH #:                                      | ≥1 - <2. | Xn; R22         | Acute Tox. 4, H302 | [1] |
|                       | 01-2119979079-20                              | 5        |                 |                    |     |
|                       | EC: 202-394-1                                 |          | Xi; R36         | Eye Irrit. 2, H319 |     |
|                       | CAS: 95-14-7                                  |          | R52/53          | Aquatic Chronic 2, |     |
|                       |   |          |                 | H411               |     |
| propane-1,2-diol      | REACH #:<br>01-2119456809-23<br>EC: 200-338-0 | ≥1 - <3  | Not classified. | Not classified.    | [2] |
| propane-1,2-diol      | REACH #:<br>01-2119456809-23                  | ≥1 - <3  |                 | H411               |     |

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 and hence require reporting in this section.

#### **Type**

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

Central Heating Protector F1

# 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. Get medical attention if irritation

occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention if symptoms occur. 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. Get medical attention if symptoms occur.

: Wash out mouth with water. Remove victim to fresh air and keep at rest in a Ingestion

> position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

# 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. : No known significant effects or critical hazards. Ingestion

## Over-exposure signs/symptoms

**Eye contact** : No specific data. Inhalation : No specific data. **Skin contact** : No specific data. Ingestion : No specific data.

Date of issue/Date of revision : 30.11.2016

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

8/20

9/20

## SECTION 4: First aid measures

Notes to physician

: 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.

**Specific treatments** 

: No specific treatment.

# SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing** media

: None known.

# 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion** products

: Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides metal oxide/oxides

### 5.3 Advice for firefighters

**Special precautions for** fire-fighters

: 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.

**Special protective** equipment for fire-fighters 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.

# 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. 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).

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

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

10/20

# SECTION 6: Accidental release measures

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. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

**Protective measures** 

Advice on general occupational hygiene

- : Put on appropriate personal protective equipment (see Section 8).
- : 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

: Store between the following temperatures: 5 to 30°C (41 to 86°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. 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.

### 7.3 Specific end use(s)

Recommendations Industrial sector specific

Not available.Not available.

solutions

# **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Date of issue/Date of revision : 30.11.2016

| Product/ingredient name                             | Exposure limit values   |
|---|---|
| Europe  |   |
| No exposure limit value known.                      |   |
| Austria   |   |
| Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)- | GKV_MAK (Austria, 12/2011). Skin sensitiser.  PEAK: 10 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction  PEAK: 1.6 ppm, 4 times per shift, 15 minutes. Form: inhalable fraction  TWA: 5 mg/m³ 8 hours. Form: inhalable fraction  TWA: 0.8 ppm 8 hours. Form: inhalable fraction  GKV_MAK (Austria, 12/2011).  PEAK: 10 mg/m³, (measured as Mo), 4 times per shift, 15 minutes. Form: inhalable fraction  TWA: 5 mg/m³, (measured as Mo) 8 hours. Form: inhalable fraction |
| Belgium   |   |
|   |   |

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11/20

# **SECTION 8: Exposure controls/personal protection**

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### **Bulgaria**

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### Croatia

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

propane-1,2-diol

## **Czech Republic**

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### **Denmark**

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### **Estonia**

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

### Finland

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

### **France**

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

Date of issue/Date of revision : 30.11.2016

### Germany

No exposure limit value known.

Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).

TWA: 5 mg/m<sup>3</sup> 8 hours.

Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).

TWA: 0.5 mg/m<sup>3</sup>, (as Mo) 8 hours. Form: respirable fraction

България Министерство на труда и социалната политика и Министерството на здравеопазването (Bulgaria, 1/2012).

Limit value 8 hours: 5 mg/m³, (as Molybdenum) 8 hours.

### MinGoRP GVI/KGVI (Croatia, 6/2013).

ELV: 5 mg/m³, (as Mo) 8 hours.

STELV: 10 mg/m³, (as Mo) 15 minutes. MinGoRP GVI/KGVI (Croatia, 6/2013).

ELV: 10 mg/m³ 8 hours. Form: particulates

ELV: 474 mg/m<sup>3</sup> 8 hours. Form: total vapour and particulates

ELV: 150 ppm 8 hours.

# MZCR PEL/NPK-P (Czech Republic, 1/2013). Absorbed through skin.

STEL: 10 mg/m³ 15 minutes. STEL: 1.64 ppm 15 minutes. TWA: 5 mg/m³ 8 hours. TWA: 0.82 ppm 8 hours.

### MZCR PEL/NPK-P (Czech Republic, 1/2013).

TWA: 5 mg/m³, (as Mo) 8 hours. STEL: 25 mg/m³, (as Mo) 15 minutes.

#### Arbejdstilsynet (Denmark, 10/2012).

TWA: 3.1 mg/m<sup>3</sup> 8 hours. TWA: 0.5 ppm 8 hours.

# Arbejdstilsynet (Denmark, 10/2012).

TWA: 5 mg/m<sup>3</sup>, (calculated as Mo) 8 hours.

Töökeskkonna keemiliste ohutegurite piirnormid määrus nr 293 (Estonia, 1/2008). Skin sensitiser.

STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.

Töökeskkonna keemiliste ohutegurite piirnormid määrus nr 293 (Estonia, 1/2008).

TWA: 5 mg/m³ 8 hours. Form: respirable dust

TWA: 5 mg/m<sup>3</sup> 8 hours.

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: total dust

Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).

TWA: 5 mg/m<sup>3</sup> 8 hours.

Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).

TWA: 0.5 mg/m³, (calculated as Mo) 8 hours.

Ministère du travail (France, 7/2012). Notes: Ministry of Labour (Brochure INRS Ed 984, July 2012). Indicative exposure limits

TWA: 5 mg/m³, (as Mo) 8 hours. STEL: 10 mg/m³, (as Mo) 15 minutes.

12/20

# SECTION 8: Exposure controls/personal protection

#### Greece

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### Hungary

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

#### Ireland

2.2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

propane-1.2-diol

#### Italy

No exposure limit value known.

#### Latvia

sebacic acid

benzotriazole

propane-1,2-diol

### Lithuania

2,2',2"-nitrilotriethanol

sebacic acid

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

propane-1,2-diol

#### **Netherlands**

No exposure limit value known.

### **Norway**

2.2'.2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

propane-1,2-diol

### **Poland**

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

Date of issue/Date of revision : 30.11.2016

### **Portugal**

Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων (Greece, 2/ 2012).

TWA: 5 mg/m³, (as Mo) 8 hours.

25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary, 12/2011).

TWA: 5 mg/m<sup>3</sup>, (as Mo) 8 hours. PEAK: 20 mg/m<sup>3</sup>, (as Mo) 15 minutes.

#### NAOSH (Ireland, 12/2011).

OELV-8hr: 5 mg/m3 8 hours. NAOSH (Ireland, 12/2011).

OELV-8hr: 10 mg/m³, (as Mo) 8 hours. Form: Inhalable fraction OELV-8hr: 0.5 mg/m³, (as Mo) 8 hours. Form: respirable fraction

NAOSH (Ireland, 12/2011).

OELV-8hr: 10 mg/m<sup>3</sup> 8 hours. Form: particulate

OELV-8hr: 470 mg/m<sup>3</sup> 8 hours. Form: vapour and particulates OELV-8hr: 150 ppm 8 hours. Form: vapour and particulates

Ministru kabineta - AER (Latvia, 2/2011).

TWA: 4 mg/m<sup>3</sup> 8 hours.

Ministru kabineta - AER (Latvia, 2/2011).

TWA: 5 ma/m<sup>3</sup> 8 hours.

Ministru kabineta - AER (Latvia, 2/2011).

TWA: 7 mg/m<sup>3</sup> 8 hours.

Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007). Skin sensitiser.

STEL: 10 mg/m3 15 minutes. TWA: 5 mg/m<sup>3</sup> 8 hours.

Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).

TWA: 4 mg/m<sup>3</sup> 8 hours.

Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).

TWA: 5 mg/m<sup>3</sup> 8 hours.

Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).

TWA: 7 mg/m<sup>3</sup> 8 hours.

FOR-2011-12-06-1358 (Norway, 1/2013).

TWA: 5 mg/m<sup>3</sup> 8 hours.

FOR-2011-12-06-1358 (Norway, 1/2013).

TWA: 5 mg/m³, (calculated as Mo) 8 hours.

FOR-2011-12-06-1358 (Norway, 1/2013).

TWA: 79 mg/m<sup>3</sup> 8 hours. TWA: 25 ppm 8 hours.

Rozporzadzenie Ministra Pracy i Polityki Spolecznej (Dz.U. 2014 poz. 817) (Poland, 6/2014).

TWA: 4 mg/m³, (calculated as Mo) 8 hours.

STEL: 10 mg/m<sup>3</sup>, (calculated as Mo) 15 minutes.



13/20

# SECTION 8: Exposure controls/personal protection

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2),

Romania

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

**Slovakia** 

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

Slovenia

2.2'.2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

**Spain** 

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

**Sweden** 

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

**Switzerland** 

2,2',2"-nitrilotriethanol

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

**Turkey** 

No exposure limit value known.

**United Kingdom (UK)** 

Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-

Date of issue/Date of revision : 30.11.2016

propane-1,2-diol

Instituto Português da Qualidade (Portugal, 3/2007).

TWA: 5 mg/m<sup>3</sup> 8 hours.

Instituto Português da Qualidade (Portugal, 3/2007).

TWA: 0.5 mg/m<sup>3</sup>, (expressed as Mo) 8 hours. Form: respirable

HG 1218/2006 cu modificările și completările ulterioare ( Romania, 1/2012).

VLA: 2 mg/m<sup>3</sup> 8 hours.

Short term: 65 mg/m3 15 minutes.

Nariadenie vlády SR c. 355/2006 (Slovakia, 12/2011).

TWA: 5 mg/m<sup>3</sup>, (Molybdenum and its soluble compounds, as Mo) 8 hours.

Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Slovenia, 12/2010).

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: inhalable fraction

Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Slovenia, 12/2010).

TWA: 5 mg/m³, (measured as Mo) 8 hours. Form: inhalable fraction

KTV: 20 mg/m<sup>3</sup>, (measured as Mo), 4 times per shift, 15 minutes. Form: inhalable fraction

INSHT (Spain, 1/2014).

TWA: 5 mg/m<sup>3</sup> 8 hours. INSHT (Spain, 1/2014).

TWA: 0.5 mg/m³, (as Mo) 8 hours. Form: respirable fraction

AFS 2011:18 (Sweden, 12/2011). Absorbed through skin.

STEL: 10 mg/m3 15 minutes. TWA: 5 mg/m<sup>3</sup> 8 hours.

STEL: 1.6 ppm 15 minutes. TWA: 0.8 ppm 8 hours.

AFS 2011:18 (Sweden, 12/2011).

TWA: 5 mg/m³, (as Mo) 8 hours. Form: total dust

SUVA (Switzerland, 1/2014).

STEL: 20 mg/m<sup>3</sup> 15 minutes. Form: Inhalable dust (total dust) TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Inhalable dust (total dust)

SUVA (Switzerland, 1/2014).

TWA: 5 mg/m<sup>3</sup>, (calculated as Mo) 8 hours. Form: Inhalable dust (total dust)

EH40/2005 WELs (United Kingdom (UK), 12/2011).

STEL: 10 mg/m³, (as Mo) 15 minutes. TWA: 5 mg/m3, (as Mo) 8 hours.

EH40/2005 WELs (United Kingdom (UK), 12/2011).

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Particulate

TWA: 474 mg/m<sup>3</sup> 8 hours. Form: Sum of vapour and particulates TWA: 150 ppm 8 hours. Form: Sum of vapour and particulates



14/20

# **SECTION 8: Exposure controls/personal protection**

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

#### **Derived effect levels**

No DELs available.

#### **Predicted effect concentrations**

No PECs available.

### 8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### 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. 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 eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

## **Skin protection**

**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. < 1 hour (breakthrough time): disposable vinyl

**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: 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.

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** 

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

# **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.

15/20

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

## 9.1 Information on basic physical and chemical properties

**Appearance** 

**Physical state** : Liquid.

Colour : Yellow. [Light] **Odour** : Aromatic. [Slight]

pH : 8 [Conc. (% w/w): 100%]

Melting point/freezing point Initial boiling point and

boiling range

: Not available. : Not available.

**Flash point** 

**Upper/lower flammability or** 

explosive limits

: [Product does not sustain combustion.] : Not available.

**Relative density** 

Solubility(ies) : Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/ : Not available.

water

**Auto-ignition temperature** : Not available.

**VOC** content 1.8 % (w/w)

#### 9.2 Other information

No additional information.

# 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 toxicological effects

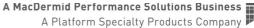
### **Acute toxicity**

| Product/ingredient name | Result    | Species | Dose      | Exposure |
|-------------------------|-----------|---------|-----------|----------|
| benzotriazole           | LD50 Oral | Rat     | 560 mg/kg | -        |

**Conclusion/Summary** : Not available.

Date of issue/Date of revision : 30.11.2016

**Acute toxicity estimates** 





Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

2015/830

Central Heating Protector F1

16/20

# **SECTION 11: Toxicological information**

| Route | ATE value     |
|-------|---------------|
| Oral  | 23357.7 mg/kg |

## **Irritation/Corrosion**

| Product/ingredient name | Result                 | Species | Score | Exposure   | Observation |
|-------------------------|------------------------|---------|-------|------------|-------------|
| benzotriazole           | Eyes - Severe irritant | Rabbit  | -     | 100        | -           |
|                         |                        |         |       | milligrams |             |

**Conclusion/Summary**: Not available.

**Sensitiser** 

**Conclusion/Summary**: Not available.

**Mutagenicity** 

**Conclusion/Summary**: Not available.

**Carcinogenicity** 

**Conclusion/Summary**: Not available.

Reproductive toxicity

**Conclusion/Summary**: Not available.

**Teratogenicity** 

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Not available.

**Information on likely**: Not available.

routes of exposure

Potential acute health effects

Inhalation : No known significant effects or critical hazards.
 Ingestion : No known significant effects or critical hazards.
 Skin contact : No known significant effects or critical hazards.
 Eye contact : No known significant effects or critical hazards.
 Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific data.Ingestion: No specific data.Skin contact: No specific data.Eye contact: No specific data.

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

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

**Long term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Date of issue/Date of revision : 30.11.2016

Potential chronic health effects

Not available.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

Central Heating Protector F1 17/20

# **SECTION 11: Toxicological information**

**Conclusion/Summary**: Not available.

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

**Conclusion/Summary**: Not available.

#### 12.2 Persistence and degradability

**Conclusion/Summary**: Not available.

#### 12.3 Bioaccumulative potential

Not available.

#### 12.4 Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Mobility : Not available.

#### 12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

**12.6 Other adverse effects**: No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 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** : Within the present knowledge of the supplier, this product is not regarded as

hazardous waste, as defined by EU Directive 91/689/EEC.

### European waste catalogue (EWC)

Date of issue/Date of revision : 30.11.2016

| Waste code | Waste designation                                     |
|------------|---|
| 16 03 06   | organic wastes other than those mentioned in 16 03 05 |

#### **Packaging**

18/20

# SECTION 13: Disposal considerations

**Methods of disposal** 

: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** 

: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

|                                    | ADR/RID        | IMDG           | IATA           |
|------------------------------------|----------------|----------------|----------------|
| 14.1 UN number                     | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name       | -              | -              | -              |
| 14.3 Transport<br>hazard class(es) | -              | -              | -              |
| 14.4 Packing group                 | -              | -              | -              |
| 14.5<br>Environmental<br>hazards   | No.            | No.            | No.            |
| Additional information             | -              | -              | -              |

14.6 Special precautions for : 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 Transport in bulk according to Annex II of Marpol and the IBC Code : 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

Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions** 

: Not applicable.

on the manufacture. placing on the market and use of certain dangerous substances. mixtures and articles

**Europe inventory** : Not determined.

Date of issue/Date of revision : 30.11.2016

National regulations

**Other EU regulations** 

**Austria Belgium Bulgaria** 

19/20

# SECTION 15: Regulatory information

**Croatia** 

**Czech Republic** 

**Denmark** 

**Estonia** 

**Finland France** 

Professional Disease(s) - Table number: 84

**Germany** 

: nwg Appendix No. 4 Hazard class for water

**Greece Hungary** <u>Ireland</u> <u>Italy</u>

**Latvia** Lithuania

**Netherlands** 

**Norway Poland** 

**Portugal** 

| Product/ingredient name                 | List name | Name on list                      | Classification | Notes |
|---|-----------|-----------------------------------|----------------|-------|
| ` |           | molibdénio,<br>compostos solúveis | Carc. A3       | -     |

: This product contains substances for which Chemical Safety Assessments are still

Romania

**Slovakia** 

**Slovenia** 

**Spain** 

**Sweden** 

**Switzerland** 

**Turkey** 

**United Kingdom (UK)** 

15.2 Chemical safety

required. assessment

# **SECTION 16: Other information**

**Date of printing** 10.12.2016 Date of issue/ Date of : 30.11.2016

revision

Date of previous issue : 29.11.2016 **Version** 2.14

**Notice to reader** 

Indicates information that has changed from previously issued version.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

Central Heating Protector F1

**Abbreviations and** acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/20081

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

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

Classification **Justification** 

Not classified.

Europe

Full text of abbreviated H Harmful if swallowed. : H302

Date of issue/Date of revision : 30.11.2016

H319 Causes serious eye irritation. statements

> H411 Toxic to aquatic life with long lasting effects.

Full text of classifications

[CLP/GHS]

: Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4

Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2

Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Full text of abbreviated R

phrases

: R22- Harmful if swallowed. R36- Irritating to eyes.

R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

**Full text of classifications** 

[DSD/DPD]

: Xn - Harmful Xi - Irritant

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.

Fernox SDS CLP Europe



20/20