

SAFETY DATA SHEET

Central Heating Protector F1

F1

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

1.1 Product identifier	
Product name	: Central Heating Protector
Product code	: 56599
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 1.3 Details of the supplier of t	: Water-boiler treatment. he 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 nur	nber

SupplierTelephone number: +44 (0) 330 100 7750Hours of operation: 24/7

SECTION 2: Hazards identification

2.1 Classification of the su	bstance or mixture
Product definition	: Mixture
Classification according to Not classified.	to Regulation (EC) No. 1272/2008 [CLP/GHS]
Ingredients of unknown toxicity	:
Ingredients of unknown ecotoxicity	:
Classification according t	to Directive 1999/45/EC [DPD]
<u>Europe</u>	

```
Date of issue/Date of revision : 30.11.2016
```

2/20

Central Heating Protector F1

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.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
Prevention	: Not applicable.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazardous ingredients	:
Supplemental label elements	: Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

			Class	<u>ification</u>	
Product/ingredient name	Identifiers	%	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	Туре
Europe					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2. 5	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
			See Section 16 for the full text of the R- phrases declared above.	See Section 16 for the full text of the H statements declared above.	
Austria					
2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Belgium					
Belgium Date of issue/Date of r	evision : 30.11.2016		A MacDern A P	nid Performance Solutions Bus	

Central Heating Protector F1

SECTION 3: Composition/information on ingredients

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

Central Heating Protector F1

SECTION 3: Composition/information on ingredients

Finland REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6 Benzotriazole Not classified. Not classified. Molybdate (MoO42-). sodium, hydrate (1.2: 2), (T-4)- REACH #: CAS: 10102-40-6 Benzotriazole $\geq 3 - < 5$ Not classified. Not classified. France REACH #: 01-2119489495-21 CAS: 10102-40-6 Benzotriazole $\geq 1 - < 2$. Xn: R22 Xi: R36 REACH #: 01-2119489495-21 CAS: 10102-40-6 Benzotriazole Xn: R22 Acute Tox. 4, H302 Xi: R36 REACH #: 01-2119489495-21 CAS: 10102-40-6 Benzotriazole Not classified. Not classified. France REACH #: 01-2119489495-21 CAS: 10102-40-6 Benzotriazole $\geq 1 - < 2$. Xn: R22 Xi: R36 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 10102-40-6 Benzotriazole Not classified. Not classified. Germany Exerch #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Xn; R22 Xi: R36 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 10102-40-6 Xn; R22 Acute Tox. 4, H302 Xi: R36 REACH #: 01-2119489495-21 Zi: R36 REACH #: 01-2119489495-21 CAS: 10102-40-6 Not classified. Not classified. Greece Molybdate (MoO42-). REACH #: 01-211997079-20 EC: 202-394-1 CAS: 10102-40-6 $\geq 1 - < 2$. Xn; R22 Xi: R36 REACH #: 01-2119489495-21 Zi: R36 REACH #: 01-2119489495-21 CAS: 10102-40-6 $\geq 1 - < 2$. Xn; R22 Xi: R36 REACH #: 01-2119489495-21 Zi: R36 REACH #: 01-2119489495-21 CAS: 10102-40-6 $\geq 1 - < 2$. Xn; R22 Xi:	stonia					
sodium, hydrate (1:2: 2), (T-4)- CAS: 10102-40-6 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 Finland \mathbb{P}^{2} , 2"-nitrilotriethanol \mathbb{P}^{2} , 2"-nitrilot	2',2"-nitrilotriethanol	01-2119486482-31 EC: 203-049-8		Not classified.	Not classified.	[2]
benzotriazole REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Acute Tox. 4, H302 Finland REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 1012-216-8 CAS: 1012-216-8 CAS: 1012-216-8 codium, hydrate (1:2: 2), (T-4) REACH #: CAS: 1012-40-6 REACH #: 01-2119489495-21 EC: 202-394-1 CAS: 1012-40-6 21 - <2. 23 - <5 Not classified. Not classified. France REACH #: 01-2119489495-21 EC: 202-394-1 CAS: 10102-40-6 REACH #: 01-2119970079-20 EC: 202-394-1 CAS: 10102-40-6 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 France REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 France REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 Germany REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 Greece REACH #: 01-2119489495-21 EC: 201-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 Molyddate (MO042-), 20(-T-2119489495-21 EC: 202-394-1 CAS: 95-14-7 21 - <2. 5 Xn; R22 Xi; R36 R52/53 Acute Tox. 4, H302 Greece REACH #: 01-2119489495-21 EC: 202-394-1 CAS: 95-14-7	dium, hydrate (1:2:	01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
Finland REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6 REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6 REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 10102-40-6 REACH #: 01-2119970979-20 EC: 202-394-1 CAS: 95-14-7 Not classified. Not classified. Volybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)- REACH #: CAS: 10102-40-6 REACH #: CAS: 95-14-7 23 - <5	nzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1		Xi; R36		[1]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	nland				1	
Molybdate (MoO42-), sodium, hydrate (1:2: REACH #: $\geq 3 - 5$ Not classified. Not classified. 2), (T-4)- C: 231-551-7 CAS: 10102-40-6 21 - 22. Xn; R22 Acute Tox. 4, H302 benzotriazole REACH #: $\geq 1 - 2$. Xn; R22 Acute Tox. 4, H302 01-2119979079-20 EC: 202-394-1 Xi; R36 Eye Irrit. 2, H319 CAS: 95-14-7 01-2119489495-21 23 - 45 Not classified. Not classified. Sodium, hydrate (1:2: 01-2119979079-20 EC: 202-394-1 CAS: 10102-40-6 21 - 42. Xn; R22 Acute Tox. 4, H302 Sodium, hydrate (1:2: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 Xn; R22 Acute Tox. 4, H302 Germany EC: 202-394-1 CAS: 95-14-7 Zn; R36 Eye Irrit. 2, H319 Gerece REACH #: 21 - 42. Xn; R22 Acute Tox. 4, H302 Molybdate (MoO42-), REACH #: 21 - 42. Xn; R22 Acute Tox. 4, H302 Sodium, hydrate (1:2: 01-2119499079-20 EC: 231-551-7 Zn; R36 Eye Irrit. 2, H319 CAS: 95-14-7 CAS: 95-14-7 CAS: 95-14-7 23 - 45 Not classifie	2',2"-nitrilotriethanol	01-2119486482-31 EC: 203-049-8		Not classified.	Not classified.	[2]
France5Xi; R36Eye Irrit. 2, H319Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: O1-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.benzotriazoleREACH #: CCS: 02-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: COS: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: COS: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. Sodium, hydrate (1:2: O1-2119489495-21 EC: 21-551-7 CAS: 10102-40-6	dium, hydrate (1:2:	REACH #: 01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
FranceEC: 202-394-1 CAS: 95-14-7Xi; R36 R52/53Eye Irrit. 2, H319 Aquatic Chronic 2, HMolybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.benzotriazoleREACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. SXn; R22Acute Tox. 4, H302 Ki; R36 R52/53Eye Irrit. 2, H319 Aquatic Chronic 2, H- Aquatic Chronic 2, H- Aquatic Chronic 2, H- SGermany benzotriazoleREACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. SXn; R22Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H- Aquatic Chronic 2, H- SGreece Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 1012-40-6 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 1012-40-6 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ <t< td=""><td>nzotriazole</td><td></td><td></td><td>Xn; R22</td><td>Acute Tox. 4, H302</td><td>[1]</td></t<>	nzotriazole			Xn; R22	Acute Tox. 4, H302	[1]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: $01-2119489495-21$ EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5 Xn; R22Acute Tox. 4, H302Germany benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5 Xn; R22Acute Tox. 4, H302Germany benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5 Xn; R22Acute Tox. 4, H302Greece Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Wolybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: CAS: 95-14-7 $\geq 1 - < 2$. $\leq 3 - < 5$ Xn; R22Acute Tox. 4, H302Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: CAS: 95-14-7 $\geq 1 - < 2$. $\leq 3 - < 5$ Xn; R22Acute Tox. 4, H302Yn; R36 REACH #: CAS: 95-14-7 $\geq 1 - < 2$. $\leq 3 - < 5$ Xn; R22Acute Tox. 4, H302Yn; R36 REACH #: CAS: 95-14-7 $\geq 1 - < 2$. $\leq 3 - < 5$ Xn; R36 REACH #: R52/53Eye Irrit. 2, H319 Aquatic Chronic 2, H-Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Yn; R36 CAS: 95-14-7REACH #: CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.		EC: 202-394-1			Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
sodium, hydrate (1:2: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 benzotriazole REACH #: 01-2119979079-20 ≥1 - <2.						[0]
benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. S Xn; R22Acute Tox. 4, H302Germany benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. S Xn; R22Acute Tox. 4, H302Greece Molybdate (MoO42-), sodium, hydrate (1:2: $2), (T-4)$ -REACH #: $CAS: 95-14-7$ $\geq 1 - < 2$. S Xn; R22Acute Tox. 4, H302Hungary Molybdate (MoO42-), sodium, hydrate (1:2: $2), (T-4)$ -REACH #: $CAS: 95-14-7$ $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: $2), (T-4)$ -REACH #: $CAS: 95-14-7$ $\geq 3 - < 5$ Not classified.Not classified.Hungary $Molybdate (MoO42-),$ sodium, hydrate (1:2: $2), (T-4)$ -REACH #: $CAS: 95-14-7$ $\geq 3 - < 5$ Not classified.Not classified.Hungary $Molybdate (MoO42-),$ sodium, hydrate (1:2: $2), (T-4)$ -REACH #: $CC: 231-551-7$ $CAS: 10102-40-6$ $\geq 3 - < 5$ Not classified.Not classified.Hungary $Molybdate (MoO42-),$ $Sodium, hydrate (1:2:2), (T-4)-REACH #:CC: 231-551-7CAS: 10102-40-6\geq 3 - < 5Not classified.Not classified.$	dium, hydrate (1:2:	01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
Germany benzotriazoleCAS: 95-14-7 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5R52/53Aquatic Chronic 2, He Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, He Solum, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 203-394-1 CAS: 10102-40-6 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. $\leq 1 - < 2$.Xn; R22 Xn; R22 Xn; R22 $\leq 1 - < 2$. Xn; R36 R52/53Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, He Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.400 Xbdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.	nzotriazole	REACH #:		Xn; R22		[1]
benzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5 Xn; R22Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H4GreeceMolybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: $01-2119489495-21$ EC: 231-551-7 CAS: 10102-40-6 REACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.HungaryMolybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: $01-2119489495-21$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2$. 5 Xn; R22 Xn; R22Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H4 Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: $01-2119489495-21$ EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.HungaryREACH #: $01-2119489495-21$ EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.					Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Greece $01-2119979079-20$ EC: $202-394-1$ CAS: $95-14-7$ 5Xi; R36 R52/53Eye Irrit. 2, H319 	ermany					
GreeceCAS: 95-14-7R52/53Aquatic Chronic 2, H4Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 201-51-7 CAS: 95-14-7 $\geq 1 - < 2$. $\geq 1 - < 2$.Xn; R22 Xi; R36 R52/53Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H4 Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.	nzotriazole					[1]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7 $\geq 3 - < 5$ Not classified.Not classified.Hungary Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 $\geq 1 - < 2$. 5 Xn; R22 Xi; R36 R52/53Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H4 Not classified.					Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
sodium, hydrate (1:2: 2), (T-4)-01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 						
DenzotriazoleREACH #: $01-2119979079-20$ EC: 202-394-1 CAS: 95-14-7 $\geq 1 - < 2.$ 5Xn; R22Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H4 Aquatic Chronic 2, H4 $\approx 3 - < 5$ Hungary Molybdate (MoO42-), sodium, hydrate (1:2: $2), (T-4)-$ REACH #: $01-2119489495-21$ EC: 231-551-7 CAS: 10102-40-6 $\geq 3 - < 5$ Not classified.Not classified.	dium, hydrate (1:2:	01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
Hungary BEACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 ≥3 - <5	nzotriazole	REACH #:		Xn; R22	Acute Tox. 4, H302	[1]
Molybdate (MoO42-), sodium, hydrate (1:2: REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6 ≥3 - <5 Not classified. Not classified.		EC: 202-394-1			Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
sodium, hydrate (1:2: 01-2119489495-21 2), (T-4)- EC: 231-551-7 CAS: 10102-40-6						
	dium, hydrate (1:2:	01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
01-2119979079-20 5	nzotriazole	REACH #: 01-2119979079-20		Xn; R22	Acute Tox. 4, H302	[1]
					Aquatic Chronic 2, H411	
Ireland	and				,,,,,,,,,,,,,	
Date of issue/Date of revision : 30.11.2016 A MacDermid Performance Solutions				A . b.f	Dormid Porfermones Colutions Dur	iner-

Central Heating Protector F1

SECTION 3: Composition/information on ingredients

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

A MacDermid Performance Solutions Business A Platform Specialty Products Company

Central Heating Protector F1

SECTION 3: Composition/information on ingredients

Norway					
2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	CAS: 102-71-0 REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1	≥1 - <2. 5	Xn; R22 Xi; R36	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
propane-1,2-diol	CAS: 95-14-7 REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥1 - <3	R52/53 Not classified.	Aquatic Chronic 2, H411 Not classified.	[2]
Poland					
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	CAS: 10102-40-6 REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Portugal					
2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	CAS: 10102-40-6 REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Romania					
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102 40 6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	CAS: 10102-40-6 REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Slovakia					
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	CAS: 10102-40-6 REACH #: 01-2119979079-20	≥1 - <2. 5		Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Slovenia					
	evision : 30.11.2016		A Mac	Dermid Performance Solutions Bus	ines

A Platform Specialty Pr

A Platform Specialty Products Company 🎮

Central Heating Protector F1

SECTION 3: Composition/information on ingredients

2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	CAS: 102-71-6 REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7	0	Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Spain					
2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302	[1]
	EC: 202-394-1 CAS: 95-14-7		Xi; R36 R52/53	Eye Irrit. 2, H319 Aquatic Chronic 2, H411	
Sweden					
2',2''-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1	≥1 - <2. 5	Xn; R22 Xi; R36	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
	CAS: 95-14-7		R52/53	Aquatic Chronic 2, H411	
Switzerland					101
2,2',2"-nitrilotriethanol	REACH #: 01-2119486482-31 EC: 203-049-8 CAS: 102-71-6	≥10 - <25	Not classified.	Not classified.	[2]
Molybdate (MoO42-), sodium, hydrate (1:2: 2), (T-4)-	REACH #: 01-2119489495-21 EC: 231-551-7 CAS: 10102-40-6	≥3 - <5	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1	≥1 - <2. 5	Xn; R22	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
	CAS: 95-14-7		Xi; R36 R52/53	Aquatic Chronic 2, H411	
Turkey					
penzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1	≥1 - <2. 5	Xn; R22 Xi; R36	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
	CAS: 95-14-7		R52/53	Aquatic Chronic 2, H411	
United Kingdom (UK)					

A Platform Specialty Products Company

8/20

Central Heating Protector F1

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 #:	≥1 - <3	Not classified.	Not classified.	[2]
	01-2119456809-23				
	EC: 200-338-0				
	CAS: 57-55-6				

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.

Туре

[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

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.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a 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 occur.
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.
Ingestion	: No known significant effects or critical hazards.
Over-exposure	signs/symptoms
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Central Heating Protector F	9/20
SECTION 4: First aid	I 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: Firefigh	ting 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 f	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: Accider	ntal release measures
6.1 Personal precautions, pr	otective equipment and emergency procedures
Ear non amarganey	. No action shall be taken involving any personal rick or without suitable training

6.1 Personal precautions, pro	tective 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 non-combustible, 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.

Central Heating Protector F1

10/20

SECTION 6: Accidental release measures

6.4 Reference to other	See Section 1 for emergency contact information.
sections	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	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities	: 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	: Not available.
Industrial sector specific solutions	: Not available.

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

Product/ingredient name	Exposure limit values
Europe	
No exposure limit value known.	
Austria	
₽,2',2"-nitrilotriethanol 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	
Date of issue/Date of revision : 30.11.2016	A MacDermid Performance Solutions Business A Platform Specialty Products Company

Central Heating Protector F1

SECTION 8: Exposure controls/p	ersonal protection
2,2',2"-nitrilotriethanol	Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).
Molybdate (MoO42-), sodium, hydrate (1:2:2),	TWA: 5 mg/m³ 8 hours. Lijst Grenswaarden / Valeurs Limites (Belgium, 4/2014).
(T-4)-	TWA: 0.5 mg/m ³ , (as Mo) 8 hours. Form: respirable fraction
Bulgaria	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	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.
Croatia	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	MinGoRP GVI/KGVI (Croatia, 6/2013). ELV: 5 mg/m ³ , (as Mo) 8 hours. STELV: 10 mg/m ³ , (as Mo) 15 minutes.
propane-1,2-diol	MinGoRP GVI/KGVI (Croatia, 6/2013). ELV: 10 mg/m ³ 8 hours. Form: particulates ELV: 474 mg/m ³ 8 hours. Form: total vapour and particulates
	ELV: 474 mg/m 8 hours. Form: total vapour and particulates
Czech Republic	
2,2',2"-nitrilotriethanol	MZCR PEL/NPK-P (Czech Republic, 1/2013). Absorbed
	through skin. STEL: 10 mg/m ³ 15 minutes. STEL: 1.64 ppm 15 minutes.
	TWA: 5 mg/m ³ 8 hours.
	TWA: 0.82 ppm 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	MZCR PEL/NPK-P (Czech Republic, 1/2013). TWA: 5 mg/m ³ , (as Mo) 8 hours. STEL: 25 mg/m ³ , (as Mo) 15 minutes.
Denmark	STEL. 25 mg/m, (as MO) 15 minutes.
2,2',2"-nitrilotriethanol	Arbejdstilsynet (Denmark, 10/2012).
	TWA: 3.1 mg/m ³ 8 hours.
	TWA: 0.5 ppm 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	Arbejdstilsynet (Denmark, 10/2012). TWA: 5 mg/m ³ , (calculated as Mo) 8 hours.
Estonia 2,2',2"-nitrilotriethanol	Töökeskkonna keemiliste ohutegurite piirnormid määrus nr
	293 (Estonia, 1/2008). Skin sensitiser. STEL: 10 mg/m ³ 15 minutes.
	TWA: 5 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	Töökeskkonna keemiliste ohutegurite piirnormid määrus nr 293 (Estonia, 1/2008).
	TWA: 5 mg/m ³ 8 hours. Form: respirable dust TWA: 5 mg/m ³ 8 hours. TWA: 10 mg/m ³ 8 hours. Form: total dust
Finland	
2,2',2"-nitrilotriethanol	Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014).
Malubdata (MaQ42), and μ budgata (1:2:2)	TWA: 5 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 3/2014). TWA: 0.5 mg/m³, (calculated as Mo) 8 hours.
France	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	Ministère du travail (France, 7/2012). Notes: Ministry of Labour (Brochure INRS Ed 984, July 2012). Indicative exposure limits TWA: 5 mg/m ³ , (as Mo) 8 hours. STEL: 10 mg/m ³ , (as Mo) 15 minutes.
Germany	
No exposure limit value known.	

Central Heating Protector F1

SECTION 8: Exposure controls/personal protection

Greece	
Molybdate (MoO42-), sodium, hydrate (1:2:2),	Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων (Greece, 2/
(T-4)-	2012).
11-manual	TWA: 5 mg/m³, (as Mo) 8 hours.
Hungary	
Molybdate (MoO42-), sodium, hydrate (1:2:2),	25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary,
(T-4)-	12/2011). TWA: 5 mg/m ³ , (as Mo) 8 hours.
	PEAK: 20 mg/m ³ , (as Mo) 15 minutes.
Ireland	
2,2',2"-nitrilotriethanol	NAOSH (Ireland, 12/2011).
	OELV-8hr: 5 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2),	NAOSH (Ireland, 12/2011).
(T-4)-	OELV-8hr: 10 mg/m ³ , (as Mo) 8 hours. Form: Inhalable fraction
	OELV-8hr: 0.5 mg/m ³ , (as Mo) 8 hours. Form: respirable fraction
propane-1,2-diol	NAOSH (Ireland, 12/2011). OELV-8hr: 10 mg/m ³ 8 hours. Form: particulate
	OELV-8hr: 470 mg/m ³ 8 hours. Form: vapour and particulates
	OELV-8hr: 150 ppm 8 hours. Form: vapour and particulates
Italy	
No exposure limit value known.	
Latvia	
sebacic acid	Ministru kabineta - AER (Latvia, 2/2011).
	TWA: 4 mg/m ³ 8 hours.
benzotriazole	Ministru kabineta - AER (Latvia, 2/2011).
	TWA: 5 mg/m ³ 8 hours.
propane-1,2-diol	Ministru kabineta - AER (Latvia, 2/2011).
	TWA: 7 mg/m ³ 8 hours.
Lithuania	
2,2',2"-nitrilotriethanol	Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007). Skin
	sensitiser. STEL: 10 mg/m³ 15 minutes.
	TWA: 5 mg/m ³ 8 hours.
sebacic acid	Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).
	TWA: 4 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2),	Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).
(T-4)- propane-1,2-diol	TWA: 5 mg/m ³ 8 hours. Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).
	TWA: 7 mg/m ³ 8 hours.
Netherlands	
No exposure limit value known.	
Norway	
-	
2,2',2"-nitrilotriethanol	FOR-2011-12-06-1358 (Norway, 1/2013). TWA: 5 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2),	FOR-2011-12-06-1358 (Norway, 1/2013).
(T-4)-	TWA: 5 mg/m ³ , (calculated as Mo) 8 hours.
propane-1,2-diol	FOR-2011-12-06-1358 (Norway, 1/2013).
	TWA: 79 mg/m ³ 8 hours.
	TWA: 25 ppm 8 hours.
Poland	
Molybdate (MoO42-), sodium, hydrate (1:2:2),	Rozporzadzenie Ministra Pracy i Polityki Spolecznej (Dz.U.
(T-4)-	2014 poz. 817) (Poland, 6/2014). TWA: 4 mg/m ³ , (calculated as Mo) 8 hours.
	STEL: 10 mg/m ³ , (calculated as Mo) 15 minutes.
Portugal	
~	

2010/000		
Central Heating Protector F1 13/20 SECTION 8: Exposure controls/personal protection 13/20		13/20
		2,2',2"-nitrilotriethanol

2,2',2"-nitrilotriethanol	Instituto Português da Qualidade (Portugal, 3/2007).
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	TWA: 5 mg/m ³ 8 hours. Instituto Português da Qualidade (Portugal, 3/2007). TWA: 0.5 mg/m ³ , (expressed as Mo) 8 hours. Form: respirable fraction
Romania	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	HG 1218/2006 cu modificările și completările ulterioare (Romania, 1/2012). VLA: 2 mg/m ³ 8 hours. Short term: 65 mg/m ³ 15 minutes.
Slovakia	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	Nariadenie vlády SR c. 355/2006 (Slovakia, 12/2011). TWA: 5 mg/m ³ , (Molybdenum and its soluble compounds, as Mo) 8 hours.
Slovenia	
₽,2',2"-nitrilotriethanolMolybdate (MoO42-), sodium, hydrate (1:2:2),	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Slovenia, 12/2010). TWA: 5 mg/m ³ 8 hours. Form: inhalable fraction Pravilnik o varovanju delavcev pred tveganji zaradi
(T-4)-	izpostavljenosti kemičnim snovem pri delu (Slovenia, 12/2010). TWA: 5 mg/m ³ , (measured as Mo) 8 hours. Form: inhalable fraction KTV: 20 mg/m ³ , (measured as Mo), 4 times per shift, 15 minutes.
Our day	Form: inhalable fraction
Spain (2',2',2"-nitrilotriethanol	INSUT (Spain 4/2044)
	INSHT (Spain, 1/2014). TWA: 5 mg/m ³ 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	INSHT (Spain, 1/2014). TWA: 0.5 mg/m ³ , (as Mo) 8 hours. Form: respirable fraction
Sweden	
2,2',2"-nitrilotriethanol	AFS 2011:18 (Sweden, 12/2011). Absorbed through skin. STEL: 10 mg/m ³ 15 minutes. TWA: 5 mg/m ³ 8 hours. STEL: 1.6 ppm 15 minutes. TWA: 0.8 ppm 8 hours.
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	AFS 2011:18 (Sweden, 12/2011). TWA: 5 mg/m³, (as Mo) 8 hours. Form: total dust
Switzerland	
2,2',2"-nitrilotriethanol	SUVA (Switzerland, 1/2014). STEL: 20 mg/m ³ 15 minutes. Form: Inhalable dust (total dust) TWA: 5 mg/m ³ 8 hours. Form: Inhalable dust (total dust)
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	SUVA (Switzerland, 1/2014). TWA: 5 mg/m ³ , (calculated as Mo) 8 hours. Form: Inhalable dust (total dust)
Turkey	
No exposure limit value known.	
United Kingdom (UK)	
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T-4)-	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 10 mg/m ³ , (as Mo) 15 minutes. TWA: 5 mg/m ³ , (as Mo) 8 hours.
propane-1,2-diol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Particulate TWA: 474 mg/m ³ 8 hours. Form: Sum of vapour and particulates TWA: 150 ppm 8 hours. Form: Sum of vapour and particulates

Central Heating Protector F1

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 concentrat	ions
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 measured	<u>ures</u>
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.

Central Heating Protector F1

SECTION 9: Physical and chemical properties

		• •
9.1 Information on basic physical and chemical properties		
<u>Appearance</u>		
Physical state	:	Liquid.
Colour	:	Yellow. [Light]
Odour	;	Aromatic. [Slight]
рН	;	8 [Conc. (% w/w): 100%]
Melting point/freezing point	;	Not available.
Initial boiling point and boiling range	:	Not available.
Flash point	:	[Product does not sustain combustion.]
Upper/lower flammability or explosive limits	:	Not available.
Relative density	:	1.1
Solubility(ies)	:	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	:	Not available.
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.

Acute toxicity estimates

Central Heating Protector F1

Irritation/Corrosion

SECTION 11: Toxicological information

	Route	ATE value	
Oral	I	23357.7 mg/kg	

Dreduct/ingredient neme	Pequit	Species	Seere	Exposure	Observation
Product/ingredient name	Result	Species	Score	Exposure	Observation
benzotriazole	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
Conclusion/Summary	: Not available.				
<u>Sensitiser</u>					
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 toxicit	<u>y (single exposure)</u>				
Not available.					
Specific target organ toxicit	v (repeated exposure)				
Not available.					
Aspiration hazard					
Not available.					
Information on likely	: Not available.				
routes of exposure					
Potential acute health effect	<u>s</u>				
Inhalation	: No known significant effects				
Ingestion	: No known significant effects				
Skin contact	: No known significant effects or critical hazards.				
Eye contact	: No known significant effects				
	ysical, chemical and toxicolog	ical character	<u>istics</u>		
Inhalation	: No specific data.				
Ingestion	: No specific data.				
Skin contact	: No specific data.				
Eye contact	: No specific data.				
	cts as well as chronic effects f	rom short and	l long-tei	<u>rm exposure</u>	
Short term exposure					
Potential immediate effects	: Not available.				
Potential delayed effects	: Not available.				
Long term exposure					
Potential immediate effects	: Not available.				
Potential delayed effects	: Not available.				
Potential chronic health effects					
Not available.					

Central Heating Protector F1

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

12.6 Other adverse effects	: No known significant effects or critical hazards.
vPvB	: Not applicable.
PBT	: Not applicable.
12.5 Results of PBT and vPv	B assessment
Mobility	: Not available.
Soil/water partition coefficient (Koc)	: Not available.
12.4 Mobility in soil	
Not available.	
12.3 Bioaccumulative potent	ial
Conclusion/Summary	: Not available.
12.2 Persistence and degrad	ability
Conclusion/Summary	: Not available.
12.1 Toxicity	

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

<u>Product</u>	
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)

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

Packaging

Central Heating Protector F1

SECTION 13: Disposal considerations

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Wast packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.	e
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	ΙΑΤΑ
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.
Additional information	-	-	-

user

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 : Not available. according to Annex II of Marpol and the IBC Code

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

Other EU regulations

Europe inventory : Not determined.

National regulations

Austria

Belgium

Bulgaria

Central Heating Protector F1

SECTION 15: Regulatory information

•	•			
<u>Croatia</u>				
Czech Republic				
<u>Denmark</u>				
<u>Estonia</u>				
<u>Finland</u>				
<u>France</u>				
	Professional Disease	(s) - Table number: 84		
<u>Germany</u>				
Hazard class for water	: nwg Appendix No. 4			
<u>Greece</u>				
<u>Hungary</u>				
<u>Ireland</u>				
<u>Italy</u>				
<u>Latvia</u>				
<u>Lithuania</u>				
Netherlands				
<u>Norway</u>				
<u>Poland</u>				
<u>Portugal</u>				
Product/ingredient name	List name	Name on list	Classification	Notes
Molybdate (MoO42-), sodium, hydrate (1:2:2), (T- 4)-	Portugal Occupational Exposure Limits	molibdénio, compostos solúveis	Carc. A3	-
Romania				•
<u>Slovakia</u>				
<u>Slovenia</u>				
<u>Spain</u>				
<u>Sweden</u>				
Switzerland				
<u>Turkey</u>				
United Kingdom (UK)				
5.2 Chemical safety ssessment	: This product contains required.	substances for which (Chemical Safety As	sessments are still
SECTION 16: Other in	nformation			
Date of printing	07.12.2016			
ate of issue/ Date of	: 30.11.2016			

revision	: 30.11.2016
Date of previous issue	: 30.11.2016
Version	: 2.15
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 F	1	20/20
Abbreviations and acronyms	 ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number 	0.
Procedure used to derive th	e classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]	
Classi	fication Justification	
Not classified.		
Europe Full text of abbreviated H statements	 H302 Harmful if swallowed. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. 	
Full text of classifications [CLP/GHS]	: Acute Tox. 4, H302 Aquatic Chronic 2, H411 Eye Irrit. 2, H319 ACUTE TOXICITY (oral) - Category 4 LONG-TERM AQUATIC HAZARD - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Cate	gory 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 aquatic environment. 	n the
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