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

SAFETY DATA SHEET

Cleaner F5 Express 280ml

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

1.1 Product identifier

Product name : **Cleaner F5 Express 280ml**

Product code : 58230

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 treatment agent.

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

Product definition : Mixture

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

Press. Gas Comp. Gas, H280

Ingredients of unknown toxicity :

Ingredients of unknown ecotoxicity :

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

Europe

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 : Warning

Hazard statements : Contains gas under pressure; may explode if heated.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Protect from sunlight.

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 not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
Europe					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53 **See Section 16 for the full text of the R-phrases declared above.**	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 **See Section 16 for the full text of the H statements declared above.**	[1]
Austria					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Belgium					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Bulgaria					

SECTION 3: Composition/information on ingredients

benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Croatia					
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	-
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Czech Republic					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Denmark					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Estonia					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Finland					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
France					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Germany					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Greece					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Hungary					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Ireland					

SECTION 3: Composition/information on ingredients

propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Italy					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Latvia					
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	[2]
sodium chloride	REACH #: 01-2119485491-33 EC: 231-598-3 CAS: 7647-14-5	≥5 - <10	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1] [2]
Lithuania					
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	[2]
sodium chloride	REACH #: 01-2119485491-33 EC: 231-598-3 CAS: 7647-14-5	≥5 - <10	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Netherlands					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Norway					
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Poland					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]

SECTION 3: Composition/information on ingredients

Portugal					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Romania					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Slovakia					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Slovenia					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Spain					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Sweden					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Switzerland					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
Turkey					
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
United Kingdom (UK)					
propane-1,2-diol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≥10 - <25	Not classified.	Not classified.	[2]
benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≥1 - <2	Xn; R22 Xi; R36 R52/53	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]

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

SECTION 3: Composition/information on ingredients

[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. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

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
sulfur oxides
phosphorus oxides
halogenated compounds
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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Contaminated absorbent material may pose the same hazard as the spilt product.

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 : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : 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. Protect from sunlight. 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	
No exposure limit value known.	
Belgium	
No exposure limit value known.	
Bulgaria	
No exposure limit value known.	
Croatia	
propane-1,2-diol	**MinGoRP GVI/KGVI (Croatia, 6/2013).** ELV: 10 mg/m³ 8 hours. Form: particulates ELV: 474 mg/m³ 8 hours. Form: total vapour and particulates ELV: 150 ppm 8 hours.

SECTION 8: Exposure controls/personal protection

Czech Republic	
No exposure limit value known.	
Denmark	
No exposure limit value known.	
Estonia	
No exposure limit value known.	
Finland	
No exposure limit value known.	
France	
No exposure limit value known.	
Germany	
No exposure limit value known.	
Greece	
No exposure limit value known.	
Hungary	
No exposure limit value known.	
Ireland	
propane-1,2-diol	**NAOSH (Ireland, 12/2011).** OELV-8hr: 10 mg/m³ 8 hours. Form: particulate OELV-8hr: 470 mg/m³ 8 hours. Form: vapour and particulates OELV-8hr: 150 ppm 8 hours. Form: vapour and particulates
Italy	
No exposure limit value known.	
Latvia	
propane-1,2-diol	**Ministru kabineta - AER (Latvia, 2/2011).** TWA: 7 mg/m³ 8 hours.
sodium chloride	**Ministru kabineta - AER (Latvia, 2/2011).** TWA: 5 mg/m³ 8 hours.
benzotriazole	**Ministru kabineta - AER (Latvia, 2/2011).** TWA: 5 mg/m³ 8 hours.
Lithuania	
propane-1,2-diol	**Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).** TWA: 7 mg/m³ 8 hours.
sodium chloride	**Lietuvos Higienos Normos HN 23 (Lithuania, 10/2007).** TWA: 5 mg/m³ 8 hours.
Netherlands	
No exposure limit value known.	
Norway	
propane-1,2-diol	**FOR-2011-12-06-1358 (Norway, 1/2013).** TWA: 79 mg/m³ 8 hours. TWA: 25 ppm 8 hours.
Poland	
No exposure limit value known.	
Portugal	
No exposure limit value known.	
Romania	
No exposure limit value known.	
Slovakia	

SECTION 8: Exposure controls/personal protection

No exposure limit value known.	
Slovenia	
No exposure limit value known.	
Spain	
No exposure limit value known.	
Sweden	
No exposure limit value known.	
Switzerland	
No exposure limit value known.	
Turkey	
No exposure limit value known.	
United Kingdom (UK)	
propane-1,2-diol	**EH40/2005 WELs (United Kingdom (UK), 12/2011).** TWA: 10 mg/m³ 8 hours. Form: Particulate TWA: 474 mg/m³ 8 hours. Form: Sum of vapour and particulates TWA: 150 ppm 8 hours. Form: Sum of vapour and particulates

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 glasses with side-shields

Skin protection

SECTION 8: Exposure controls/personal 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 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: None assigned.

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. Recommended: None assigned.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Amber.

Odour : Faint odour.

pH : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Not available.

Flash point : Not available.

Upper/lower flammability or explosive limits : Not available.

Relative density : 1.235

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 : 15.1 % (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

Route	ATE value
Oral	46666.7 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.

SECTION 11: Toxicological information

Information on likely routes of exposure : Not available.

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 effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : 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

Product/ingredient name	Result	Species	Exposure
-	Acute LC50 >100 mg/l	Fish	96 hours

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 coefficient (K_{OC}) : Not available.

SECTION 12: Ecological information

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)

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

Packaging

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	1950	1950	1950
14.2 UN proper shipping name	Aerosols, non-flammable	Aerosols, non-flammable	Aerosols, non-flammable
14.3 Transport hazard class(es)	2 	2.2 	2.2 
14.4 Packing group	-	-	
14.5 Environmental hazards	No.	No.	No.

SECTION 14: Transport information

Additional information	Tunnel code	Emergency schedules (EmS)	
	E	F-D, S-U	

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

14.7 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 on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : Not determined.

National regulations

Austria

Belgium

Bulgaria

Croatia

Czech Republic

Denmark

Estonia

Finland

France

Professional Disease(s) - Table number: 84

Germany

Hazard class for water : 1 Appendix No. 4

Greece

Hungary

Ireland

Italy

Latvia

Lithuania

Netherlands

Norway

Poland

Portugal

Romania

SECTION 15: Regulatory information

Slovakia

Slovenia

Spain

Sweden

Switzerland

Turkey

United Kingdom (UK)

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

SECTION 16: Other information

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Notice to reader

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
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
Press. Gas Comp. Gas, H280	Expert judgment

Europe

Full text of abbreviated H statements :
H280 Contains gas under pressure; may explode if heated.
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	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
Press. Gas Comp. Gas, H280	GASES UNDER PRESSURE - Compressed gas

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 above-named 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.