



# SAFETY DATA SHEET

Murfill Waterproofing Coating

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

### 1.1 Product identifier

**Product name** : Murfill Waterproofing Coating  
**Product description** : Paint  
**Product type** : Liquid.  
**UFI** : PUE1-A0U8-900Q-4G8H

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

Identified uses	
Consumer use Industrial use Professional use	
Uses advised against	Reason
None identified.	-

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

RUST-OLEUM EUROPE  
 Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium  
 Telephone no.: +32 (0) 13 460 200  
 Fax no.: +32 (0) 13 460 201

Tor Coatings Limited  
 Unit 21, White Rose Way, Follingsby Park, Gateshead, Tyne & Wear, NE10 8YX United Kingdom  
 Telephone no.: +44 (0) 191 4106611  
 Fax no.: +44 (0) 191 4920125  
 enquiries@tor-coatings.com

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

### 1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

**Telephone number** : +44 870 8200418 / +44 2038073798  
**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]**

Skin Sens. 1, H317  
 Aquatic Chronic 3, H412

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

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## SECTION 2: Hazards identification

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : May cause an allergic skin reaction.  
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**General** : P103 - Read carefully and follow all instructions.  
P102 - Keep out of reach of children.  
P101 - If medical advice is needed, have product container or label at hand.

**Prevention** : P280 - Wear protective gloves.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -(methylphenyl)- $\omega$ -hydroxy-Octene, hydroformylation products, high-boiling 1,2-benzisothiazol-3(2H)-one 2-octyl-2H-isothiazol-3-one reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

**Supplemental label elements** : Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

**Supplemental label elements : Detergents - Regulation (EC) No 907/2006** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

#### United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
barium diboron tetraoxide	REACH #: 01-2119983530-36 EC: 237-222-4 CAS: 13701-59-2	≤3	Acute Tox. 4, H302 Repr. 1B, H360F	[1] [2]
Poly[oxy(methyl-1,2-ethanediy)], α-(methylphenyl)-ω-hydroxy-	REACH #: 02-2119549982-25 EC: 618-605-9 CAS: 9064-13-5	≤1	Skin Sens. 1B, H317	[1]
Octene, hydroformylation products, high-boiling	REACH #: 01-2119486463-31 EC: 271-237-7 CAS: 68526-89-6	≤0,3	Skin Sens. 1B, H317	[1]
2-octyl-2H-isothiazol-3-one	EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	≤0,3	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330	[1]
1,2-benzisothiazol-3(2H)-one	REACH #: 01-2120761540-60 EC: 220-120-9 CAS: 2634-33-5 Index: 613-088-00-6	≤0,1	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411	[1]
2-octyl-2H-isothiazol-3-one	REACH #: 17-2119390467-28 EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	≤0,1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]
pyrithione zinc	REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7	≤0,1	Acute Tox. 3, H301 Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=10)	[1]
terbutryn	EC: 212-950-5 CAS: 886-50-0	≤0,1	Acute Tox. 4, H302 Skin Sens. 1B, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]
reaction mass of: 5-chloro- 2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H- isothiazol-3-one [EC no. 220-239-6] (3:1)	REACH #: 01-2120764691-48 EC: 611-341-5 CAS: 55965-84-9 Index: 613-167-00-5	≤0,1	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	[1]

Murfill Waterproofing Coating

## SECTION 3: Composition/information on ingredients

			Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) <b>See Section 16 for the full text of the H statements declared above.</b>
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### 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

[6] Additional disclosure due to company policy

This mixture contains  $\geq 1\%$  of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

<b>SCL (Specific Concentration Limits)</b>	
1,2-benzisothiazol-3(2H)-one	H317 = 0.05 %
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	H317 = 0.0015 %
2-octyl-2H-isothiazol-3-one	H317 = 0.0015 %

<b>ATE (acute toxicity estimates)</b>	
2-octyl-2H-isothiazol-3-one	H330: ATE= 0,27 mg/L (dusts/mists) H311: ATE= 311 mg/kg H301: ATE= 125 mg/kg

<b>Nanoform</b>	
<b>Particle characteristics</b> This product does not contains nanomaterials.	<b>Particle Size</b> Not applicable.

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

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

## 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.

## SECTION 4: First aid measures

- 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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## SECTION 5: Firefighting measures

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions 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.

**Additional information** : No unusual hazard if involved in a fire.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

### 6.2 Environmental precautions

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

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

**Small spill** : Stop leak if without risk. Move containers from spill area. 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.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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 between the following temperatures: 4 to 26°C (39,2 to 78,8°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. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

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

### 8.1 Control parameters

#### Occupational exposure limits

#### **United Kingdom: Great Britain**

Product/ingredient name	Exposure limit values
barium diboron tetraoxide	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Notes: as Ba</b> TWA: 0,5 mg/m <sup>3</sup> , (as Ba) 8 hours.

- 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.

#### DNELs/DMELs

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Octene, hydroformylation products, high-boiling	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	87 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	116,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	411,4 mg/m <sup>3</sup>	Workers	Systemic

### PNECs

No PNECs 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

### Skin protection

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

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

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

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

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

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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

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



## SECTION 8: Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear overalls or long sleeved shirt. (EN 467)
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: In case of insufficient ventilation, wear suitable respiratory equipment. organic vapour filter (Type A) (EN 140)
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

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

### 9.1 Information on basic physical and chemical properties

- Physical state** : Liquid. [Viscous liquid.]
- Colour** : Beige. Black. Blue. Brown. Grey. Green. Orange. Pink Purple. Red. White. Yellow. [Light]
- Odour** : Faint odour.
- Odour threshold** : Not available.
- Melting point/freezing point** : 0°C [Literature]
- Initial boiling point and boiling range** : >100°C (>212°F) [Literature]
- Flammability (solid, gas)** : Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Nonflammable, but will burn on prolonged exposure to flame or high temperature.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Closed cup: >100°C (>212°F) [Literature] [Product does not sustain combustion.]
- Auto-ignition temperature** : Not relevant due to nature of the product.
- Decomposition temperature** : Not available.
- pH** : 8 to 9 [OECD 122]
- pH : Justification** : Not available.
- Viscosity** : Dynamic: 18000 to 26000 mPa·s [ISO EN BS DIN 3219]
- Solubility(ies)** : Soluble in the following materials: cold water and hot water. Very slightly soluble in the following materials: methanol and acetone.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : 2,3 kPa (17,25 mm Hg) [Literature]
- Evaporation rate** : <1 (butyl acetate = 1)
- Relative density** : 1,32 to 1,37 [DIN 53217]
- Density** : 1,32 to 1,37 g/cm<sup>3</sup> [20°C (68°F)] [DIN 53217]
- Vapour density** : >1 [Air = 1]

## SECTION 9: Physical and chemical properties

- Explosive properties** : Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  
No unusual hazard if involved in a fire.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

## SECTION 10: Stability and reactivity

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

## SECTION 11: Toxicological information

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

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
barium diboron tetraoxide	LC50 Inhalation Dusts and mists	Rat	3,54 mg/l	4 hours
	LD50 Oral	Rat - Female	530 mg/kg	-
	LD50 Oral	Rat - Male	850 mg/kg	-
	LD50 Oral	Rat	6000 mg/kg	-
Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -(methylphenyl)- $\omega$ -hydroxy-	LD50 Oral	Rat	>2000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,27 mg/l	4 hours
	LD50 Dermal	Rabbit	311 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
2-octyl-2H-isothiazol-3-one	LD50 Oral	Rat	248 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,11 mg/l	4 hours
	LC50 Inhalation Dusts and mists	Rat - Male, Female	0,5 mg/l	4 hours
1,2-benzisothiazol-3(2H)-one	LD50 Oral	Rat - Male	490 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0,27 mg/l	4 hours
2-octyl-2H-isothiazol-3-one	LD50 Oral	Rat	248 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	140 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	100 mg/kg	-
pyrithione zinc	LD50 Oral	Rat	177 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>2200 mg/l	4 hours
	LD50 Dermal	Rabbit	>10200 mg/kg	-
terbutryn	LD50 Oral	Rat	2045 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat - Male, Female	0,171 mg/l	4 hours
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:	LC50 Inhalation Dusts and mists	Rat - Male, Female	0,171 mg/l	4 hours

## SECTION 11: Toxicological information

1)	LD50 Dermal LD50 Oral	Rabbit Rat	92,4 mg/kg 64 mg/kg	- -
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**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
barium diboron tetraoxide	530	N/A	N/A	N/A	N/A
Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -(methylphenyl)- $\omega$ -hydroxy-	6000	N/A	N/A	N/A	N/A
2-octyl-2H-isothiazol-3-one	125	311	N/A	N/A	0,27
1,2-benzisothiazol-3(2H)-one	490	N/A	N/A	0,5	N/A
2-octyl-2H-isothiazol-3-one	125	311	N/A	N/A	0,27
pyrithione zinc	221	N/A	N/A	N/A	0,14
terbutryn	500	N/A	N/A	N/A	N/A
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	64	92,4	N/A	N/A	0,171

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-octyl-2H-isothiazol-3-one	Eyes - Severe irritant	Rabbit	-	-	-
terbutryn	Eyes - Moderate irritant	Rabbit	-	76 milligrams	-
	Skin - Mild irritant	Rabbit	-	380 milligrams	-
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	Skin - Severe irritant	Human	-	0.01 Percent	-
	Skin - Severe irritant	Rabbit	-	-	1 to 4 hours
	Eyes - Severe irritant	Rabbit	-	-	-

### Conclusion/Summary

**Skin** : Based on available data, the classification criteria are not met.

**Eyes** : Based on available data, the classification criteria are not met.

**Respiratory** : Based on available data, the classification criteria are not met.

### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Poly[oxy(methyl-1,2-ethanediyl)], $\alpha$ -(methylphenyl)- $\omega$ -hydroxy-	skin	Mouse	Sensitising
1,2-benzisothiazol-3(2H)-one	skin	Guinea pig	Sensitising
2-octyl-2H-isothiazol-3-one	skin	Rat	Sensitising
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	skin	Guinea pig	Sensitising

### Conclusion/Summary

**Skin** : May cause an allergic skin reaction.

**Respiratory** : Based on available data, the classification criteria are not met.

## SECTION 11: Toxicological information

### Mutagenicity

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

### Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

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

### Reproductive toxicity

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

### Teratogenicity

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

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
pyrithione zinc	Category 1	-	-

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Inhalation.  
Routes of entry not anticipated: Dermal.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : 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

Product/ingredient name	Result	Species	Dose	Exposure
barium diboron tetraoxide	Sub-chronic NOAEL Oral	Rat - Male	70 mg/kg	91 days; 7 days per week

## SECTION 11: Toxicological information

<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
<b>General</b>	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: No known significant effects or critical hazards.
<b>Endocrine disrupting properties</b>	: Not available.
<b>Other information</b>	: Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure	
barium diboron tetraoxide	Acute EC50 20,3 to 22,4 ppm Fresh water	Daphnia spec. - Daphnia magna - Larvae	48 hours	
	Acute LC50 151 to 299 ppm Fresh water	Fish - Lepomis macrochirus	96 hours	
	Acute LC50 145 µg/l Fresh water	Fish - Rasbora heteromorpha	96 hours	
	Acute LC50 62 to 84,5 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours	
	1,2-benzisothiazol-3(2H)-one	Acute EC50 0,067 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
		Acute EC50 0,11 mg/l	Algae	72 hours
		Acute EC50 0,9893 mg/l Marine water	Crustaceans - Opossum Shrimp	96 hours
		Acute EC50 2,94 mg/l Fresh water	Daphnia spec.	48 hours
		Acute LC50 8 to 13 mg/l	Fish - Alburnus alburnus	96 hours
		Acute LC50 2,18 mg/l Fresh water	Fish	96 hours
Acute LC50 1,6 to 2,8 ppm Fresh water		Fish - Oncorhynchus mykiss	96 hours	
Chronic NOEC 90 mg/l		Aquatic plants - Phaseolus vulgaris	20 days	
Chronic NOEC 1,2 mg/l		Daphnia spec.	21 days	
Chronic NOEC 0,21 mg/l		Fish	28 days	
2-octyl-2H-isothiazol-3-one	Chronic NOEL 0,0403 mg/l	Algae	72 hours	
	Acute EC50 0,32 to 0,834 mg/l Fresh water	Daphnia spec. - Daphnia magna	48 hours	
	Acute IC50 0,084 mg/l	Algae	72 hours	
	Acute LC50 0,14 to 0,202 mg/l Fresh water	Fish - Pimephales promelas	96 hours	
	Acute LC50 0,0655 to 0,104 mg/l Fresh water	Fish	96 hours	
pyrithione zinc	Acute EC50 0,51 µg/l Marine water	Algae - Thalassiosira pseudonana	96 hours	
	Acute EC50 38 µg/l Fresh water	Crustaceans - Ilyocypris dentifera	48 hours	
	Acute EC50 80 µg/l Fresh water	Crustaceans - Chydorus sphaericus	48 hours	
	Acute EC50 8,25 ppb Fresh water	Daphnia spec. - Daphnia magna	48 hours	
	Acute EC50 61 µg/l Fresh water	Daphnia spec. - Daphnia magna - Nauplii	48 hours	
	Acute LC50 2,68 ppb Fresh water	Fish - Pimephales promelas	96 hours	
	Chronic EC10 0,36 µg/l Marine water	Algae - Thalassiosira pseudonana	96 hours	
	Chronic NOEC 2,7 ppb Marine water	Daphnia spec. - Daphnia magna	21 days	
terbutryn	Acute EC50 0,1 µg/l Fresh water	Algae - Fragilaria capucina ssp. rumpens	96 hours	
	Acute EC50 2 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	

## SECTION 12: Ecological information

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	Acute EC50 2,66 ppm Fresh water Acute IC50 0,0055 mg/l Acute LC50 579,3 mg/l Fresh water	Daphnia spec. - Daphnia magna Algae Crustaceans - Pacifastacus leniusculus - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 72 hours 48 hours
	Acute LC50 1,8 to 1400 µg/l Fresh water	Fish - Carassius carassius	96 hours
	Acute LC50 0,82 ppm Fresh water Chronic EC10 0,015 µg/l Fresh water	Fish - Oncorhynchus mykiss Algae - Fragilaria capucina ssp. rumpens	96 hours 96 hours
	Acute EC50 0,037 mg/l Fresh water	Algae	48 hours
	Acute EC50 0,16 mg/l Fresh water Acute LC50 0,19 mg/l Fresh water Acute NOEC 0,004 mg/l Marine water Chronic NOEC 0,18 mg/l Chronic NOEC 0,02 mg/l Fresh water	Daphnia spec. Fish Algae Daphnia spec. Fish	48 hours 96 hours 48 hours 21 days 38 days

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

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Poly[oxy(methyl-1,2-ethanediy)] <sub>n</sub> -α-(methylphenyl)-ω-hydroxy-	OECD 301F	80 to 90 % - Readily - 28 days	-	Activated sludge
1,2-benzisothiazol-3(2H)-one 2-octyl-2H-isothiazol-3-one  reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	OECD 303A	>90 % - Readily - 1 days	-	-
	OECD 309	90 % - Readily - 4 days	0,01 to 0,1 mg/l	-
	OECD 303A	>80 % - Readily - 4 days	-	-
	OECD 309	50 % - Readily - 2 days	0,01 to 0,1 mg/l	-
	OECD 301D	>60 % - Readily - 28 days	-	-
-	-	<50 % - 10 days	-	-

**Conclusion/Summary** : This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Poly[oxy(methyl-1,2-ethanediy)] <sub>n</sub> -α-(methylphenyl)-ω-hydroxy-	-	-	Readily
2-octyl-2H-isothiazol-3-one	-	-	Readily
1,2-benzisothiazol-3(2H)-one	-	-	Readily
2-octyl-2H-isothiazol-3-one	Fresh water 2 days, 20°C	-	Readily
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	-	-	Readily

### 12.3 Bioaccumulative potential

## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Poly[oxy(methyl-1,2-ethanediy)] <sub>n</sub> -o-(methylphenyl)-ω-hydroxy-	2,78	-	low
Octene, hydroformylation products, high-boiling	>3.8	-	high
2-octyl-2H-isothiazol-3-one	2,9	-	low
1,2-benzisothiazol-3(2H)-one	0,64	-	low
2-octyl-2H-isothiazol-3-one	2,9	-	low
pyrithione zinc	0,9	11	low
terbutryn	3,74	-	low
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	-0.83 to 0.75	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Nonvolatile liquid.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Endocrine disrupting properties** : No known significant effects or critical hazards.

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

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

### 13.1 Waste treatment methods

#### Product

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

**Hazardous waste** : Yes.

#### European waste catalogue (EWC)

Waste code	Waste designation
08 01 15*	aqueous sludges containing paint or varnish containing organic solvents or other hazardous substances

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

## SECTION 14: Transport information

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

**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 IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

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

**VOC** :

**VOC for Ready-for-Use Mixture** : IIA/i. One-pack performance coatings. EU limit value for this product : 140g/l (2010.) This product contains a maximum of 25 g/l VOC.

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

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

#### Ozone depleting substances (1005/2009/EC)



## SECTION 15: Regulatory information

Not listed.

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

Not listed.

### Persistent Organic Pollutants (850/2004/EC)

Not listed.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### United Kingdom: Great Britain

#### **References**

: EH40/2005 Workplace exposure limits  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878  
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

### International regulations

#### Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

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

List name	Ingredient name	Status
Not listed.		

**CN code** : 3209 10 00 00

### Inventory list

- Australia** : At least one component is not listed.
- Canada** : At least one component is not listed.
- China** : At least one component is not listed.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (CSCL)**: At least one component is not listed.  
**Japan inventory (ISHL)**: At least one component is not listed.
- New Zealand** : At least one component is not listed.
- Philippines** : At least one component is not listed.
- Republic of Korea** : At least one component is not listed.
- Taiwan** : At least one component is not listed.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : At least one component is not listed.
- Viet Nam** : Not determined.

### **15.2 Chemical safety assessment**

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

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

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

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

Classification	Justification
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 3, H412	Calculation method

### Full text of abbreviated H statements

#### United Kingdom: Great Britain

#### Full text of abbreviated H statements

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H360D	May damage the unborn child.
H360F	May damage fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### Full text of classifications [CLP/GHS]

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

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## SECTION 16: Other information

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### [Notice to reader](#)

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

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