



# SAFETY DATA SHEET

Zinsser BIN Advanced White

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

### 1.1 Product identifier

**Product name** : Zinsser BIN Advanced White  
**Product description** : Not available.  
**Product type** : Liquid.  
**UFI** : QCVS-N8SK-SXE7-TSTX

### 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 United Kingdom: : +44 870 8200418 / +44 2038073798  
Great Britain

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.

## SECTION 2: Hazards identification

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

### 2.2 Label elements

**Hazard pictograms**

:



**Signal word**

: Warning

**Hazard statements**

: H317 - May cause an allergic skin reaction.  
H412 - 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**

: 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**

: EUH211 - 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	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[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. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 450 mg/kg ATE [Inhalation (dusts and mists)] = 0,21 mg/l Skin Sens. 1, H317: C ≥ 0,036% M [Acute] = 1 M [Chronic] = 1	[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 Aquatic Chronic 1, H410	ATE [Oral] = 221 mg/kg ATE [Inhalation (dusts and mists)] = 0,14 mg/l M [Acute] = 1000 M [Chronic] = 10	[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 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 125 mg/kg ATE [Dermal] = 311 mg/kg ATE [Inhalation (dusts and mists)] = 0,27 mg/l Skin Sens. 1, H317: C ≥ 0,0015% M [Acute] = 100 M [Chronic] = 100	[1]
terbutryn	EC: 212-950-5 CAS: 886-50-0	≤0,1	Acute Tox. 4, H302 Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 100 M [Chronic] = 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 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 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 64 mg/kg ATE [Dermal] = 92,4 mg/kg ATE [Inhalation (dusts and mists)] = 0,171 mg/l Skin Corr. 1B, H314: C ≥ 0,6% Skin Irrit. 2, H315: 0,06% ≤ C < 0,6% Eye Dam. 1, H318: C ≥ 0,6%	[1]

### SECTION 3: Composition/information on ingredients

				Eye Irrit. 2, H319: 0,06% ≤ C < 0,6% Skin Sens. 1, H317: C ≥ 0,0015% M [Acute] = 100 M [Chronic] = 100
See Section 16 for the full text of the H statements declared above.				

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.

Type

[1] Substance classified with a health or environmental hazard

List numbers have no legal significance.

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

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.
- 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.

## SECTION 4: First aid measures

- 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. In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- Unsuitable extinguishing media** : Do not use water jet.

### 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.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
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.

## SECTION 6: Accidental release measures

### 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 / Biological exposure indices**

## SECTION 8: Exposure controls/personal protection

**Recommended monitoring procedures** : 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

Product/ingredient name	Type	Exposure	Value	Population	Effects
zinc oxide	DNEL	Long term Inhalation	5 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population [Consumers]	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Inhalation	6,81 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
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)	DNEL	Long term Inhalation	0,02 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0,04 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0,02 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0,04 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Oral	0,09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0,11 mg/kg bw/day	General population	Systemic

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
zinc oxide	Fresh water	25,6 µg/l	-
	Marine	7,6 µg/l	-
	Sewage Treatment Plant	64,7 µg/l	-
	Fresh water sediment	146 mg/kg dwt	-
	Marine water sediment	70,3 mg/kg dwt	-
	Soil	44,3 mg/kg dwt	-
1,2-benzisothiazol-3(2H)-one	Fresh water	0,00403 mg/l	-
	Marine water	0,000403 mg/l	-

## SECTION 8: Exposure controls/personal protection

pyrithione zinc	Sewage Treatment Plant	1,03 mg/l	-	
	Fresh water sediment	0,0499 mg/kg dwt	-	
	Marine water sediment	0,00499 mg/kg dwt	-	
	Soil	3 mg/kg dwt	-	
	Fresh water	0,00009 mg/l	-	
	Marine water	0,00009 mg/l	-	
	Sewage Treatment Plant	0,01 mg/l	-	
	Marine water sediment	0,0095 mg/kg	-	
	Fresh water sediment	0,0095 mg/kg	-	
	Fresh water	3,39 ng/l	-	
	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)	Sewage Treatment Plant	0,23 mg/l	-
		Marine water	3,39 ng/l	-
		Soil	0,01 mg/kg dwt	-
		Fresh water sediment	0,027 mg/kg dwt	-
		Marine water sediment	0,027 mg/kg dwt	-
		Fresh water	0,00339 mg/l	-
Marine water		0,00339 mg/l	-	
Sewage Treatment Plant		0,23 mg/l	-	
Fresh water sediment		0,027 mg/kg	-	
Marine water sediment		0,027 mg/kg	-	
Soil	0,01 mg/kg	-		

### 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.



## 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. > 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.
- 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** : White.
- Odour** : Not available.
- 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.
- Lower and upper explosion limit** : Not available.
- Flash point** : Closed cup: 100°C (212°F) [Literature]
- Auto-ignition temperature** : Not relevant due to nature of the product.
- Decomposition temperature** : Not available.
- pH** : 7 [Conc. (% w/w): 100%] [OECD 122]
- pH : Justification** : Not available.
- Viscosity** : Dynamic: 1650 mPa·s [ASTM D562 [KU]]  
Kinematic: 1287 mm<sup>2</sup>/s

**SECTION 9: Physical and chemical properties****Solubility(ies)** :

Media	Result
cold water	Soluble
hot water	Soluble
methanol	Very slightly soluble
acetone	Very slightly soluble

**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** : Not available.**Density** : 1,282 g/cm<sup>3</sup> [20°C (68°F)] [DIN 53217]**Vapour density** : >1 [Air = 1]**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
zinc oxide	LC50 Inhalation Dusts and mists	Mouse	2500 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m <sup>3</sup>	4 hours
1,2-benzisothiazol-3(2H)-one	LD50 Oral	Rat	>15 g/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
	LD50 Oral	Rat - Male	490 mg/kg	-

## SECTION 11: Toxicological information

pyrithione zinc	LC50 Inhalation Dusts and mists	Rat	140 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	100 mg/kg	-
	LD50 Oral	Rat	177 mg/kg	-
2-octyl-2H-isothiazol-3-one	LC50 Inhalation Dusts and mists	Rat	0,27 mg/l	4 hours
	LD50 Oral	Rat	248 mg/kg	-
terbutryn	LC50 Inhalation Dusts and mists	Rat	>2200 mg/l	4 hours
	LD50 Dermal	Rabbit	>10200 mg/kg	-
	LD50 Oral	Rat	2045 mg/kg	-
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)	LC50 Inhalation Dusts and mists	Rat - Male, Female	0,171 mg/l	4 hours
	LD50 Dermal	Rabbit	92,4 mg/kg	-
	LD50 Oral	Rat	64 mg/kg	-

**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)
1,2-benzisothiazol-3(2H)-one	450	N/A	N/A	N/A	0,21
pyrithione zinc	221	N/A	N/A	N/A	0,14
2-octyl-2H-isothiazol-3-one	125	311	N/A	N/A	0,27
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
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2-octyl-2H-isothiazol-3-one terbutryn	Eyes - Severe irritant	Rabbit	-	-	-
	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)	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Severe irritant	Human	-	0.01 Percent	-
	Skin - Severe irritant	Rabbit	-	-	1 to 4 hours

### 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

## SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
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)	skin skin skin	Guinea pig Rat Guinea pig	Sensitising Sensitising Sensitising

### Conclusion/Summary

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

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

### 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, Eyes.  
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

## SECTION 11: Toxicological information

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

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure	
zinc oxide	Acute EC50 0,024 mg/l	Algae	72 hours	
	Acute EC50 0,137 mg/l	Algae	72 hours	
	Acute EC50 0,413 mg/l	Daphnia spec.	48 hours	
	Acute EC50 0,481 mg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours	
	Acute IC50 46 µg/l Fresh water	- Neonate		
		Algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase		72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours	
	Acute LC50 0,33 to 0,78 mg/l	- Neonate		
		Fish		96 hours
	Chronic NOEC 0,019 mg/l	Algae	7 days	
	Chronic NOEC 0,037 mg/l	Daphnia spec.	21 days	
	Chronic NOEC 0,082 mg/l	Daphnia spec.	7 days	
	Chronic NOEC 0,199 mg/l	Fish	30 days	
	1,2-benzisothiazol-3(2H)-one	Acute EC50 0,11 mg/l	Algae	72 hours
Acute EC50 0,067 mg/l		Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	
Acute EC50 0,9893 mg/l Marine water		Crustaceans - <i>Opossum Shrimp</i>	96 hours	
Acute EC50 2,94 mg/l Fresh water		Daphnia spec.	48 hours	
Acute LC50 2,18 mg/l Fresh water		Fish	96 hours	
Acute LC50 8 to 13 mg/l		Fish - <i>Alburnus alburnus</i>	96 hours	
Acute LC50 1,6 to 2,8 ppm Fresh water		Fish - <i>Oncorhynchus mykiss</i>	96 hours	
Chronic NOEC 90 mg/l		Aquatic plants - <i>Phaseolus vulgaris</i>	20 days	
Chronic NOEC 1,2 mg/l		Daphnia spec.	21 days	
Chronic NOEC 0,21 mg/l		Fish	28 days	
Chronic NOEL 0,0403 mg/l	Algae	72 hours		

## SECTION 12: Ecological information

pyrithione zinc	Acute EC50 0,51 µg/l Marine water	Algae - <i>Thalassiosira pseudonana</i>	96 hours	
	Acute EC50 80 µg/l Fresh water	Crustaceans - <i>Chydorus sphaericus</i>	48 hours	
	Acute EC50 38 µg/l Fresh water	Crustaceans - <i>Ilyocypris dentifera</i>	48 hours	
	Acute EC50 8,25 ppb Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours	
	Acute EC50 61 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i> - Nauplii	48 hours	
	Acute LC50 2,68 ppb Fresh water	Fish - <i>Pimephales promelas</i>	96 hours	
	Chronic EC10 0,36 µg/l Marine water	Algae - <i>Thalassiosira pseudonana</i>	96 hours	
	Chronic NOEC 2,7 ppb Marine water	Daphnia spec. - <i>Daphnia magna</i>	21 days	
	Acute EC50 0,32 to 0,834 mg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours	
	Acute IC50 0,084 mg/l	Algae	72 hours	
2-octyl-2H-isothiazol-3-one	Acute LC50 0,0655 to 0,104 mg/l Fresh water	Fish	96 hours	
	Acute LC50 0,14 to 0,202 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours	
	terbutryn	Acute EC50 0,1 µg/l Fresh water	Algae - <i>Fragilaria capucina ssp. rumpens</i>	96 hours
		Acute EC50 2 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours
		Acute EC50 2,66 ppm Fresh water	Daphnia spec. - <i>Daphnia magna</i>	48 hours
		Acute IC50 0,0055 mg/l	Algae	72 hours
		Acute LC50 579,3 mg/l Fresh water	Crustaceans - <i>Pacifastacus leniusculus</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
		Acute LC50 1,8 to 1400 µg/l Fresh water	Fish - <i>Carassius carassius</i>	96 hours
		Acute LC50 0,82 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
		Chronic EC10 0,015 µg/l Fresh water	Algae - <i>Fragilaria capucina ssp. rumpens</i>	96 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] (3:1)		Acute EC50 0,037 mg/l Fresh water	Algae	48 hours
		Acute EC50 0,16 mg/l Fresh water	Daphnia spec.	48 hours
	Acute LC50 0,19 mg/l Fresh water	Fish	96 hours	
	Acute NOEC 0,004 mg/l Marine water	Algae	48 hours	
	Chronic NOEC 0,18 mg/l	Daphnia spec.	21 days	
	Chronic NOEC 0,02 mg/l Fresh water	Fish	38 days	

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

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
1,2-benzisothiazol-3(2H)-one 2-octyl-2H-isothiazol-3-one	OECD 303A	>90 % - Readily - 1 days	-	-
	OECD 303A	>80 % - Readily - 4 days	-	-
	OECD 309	90 % - Readily - 4 days	0,01 to 0,1 mg/l	-
	OECD 309	50 % - Readily - 2 days	0,01 to 0,1 mg/l	-
	OECD 301D	>60 % - Readily - 28 days	-	-
	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)	-	<50 % - 10 days	-

**SECTION 12: Ecological information****Conclusion/Summary** : This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
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)	- Fresh water 2 days, 20°C -	- - -	Readily Readily Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
zinc oxide	-	177	Low
1,2-benzisothiazol-3(2H)-one	0,64	-	Low
pyrithione zinc	0,9	11	Low
2-octyl-2H-isothiazol-3-one	2,9	-	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** : Non-volatile.**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**

Not available.

**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.

## SECTION 13: Disposal considerations

### 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

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

No listed substance

#### Labelling

#### Other EU regulations

**VOC** :  
**VOC for Ready-for-Use Mixture** : IIA/g. Primers. EU limit value for this product : 30g/l (2010.)  
 This product contains a maximum of 1 g/l VOC.  
**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed



## SECTION 15: Regulatory information

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

**Explosive precursors** : Not applicable.

**United Kingdom: Great Britain**

**UK (GB)/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.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Aerosol dispensers** :

**Seveso Directive**

This product is not controlled under the Seveso Directive.

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

**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** : All components are listed or exempted.

**Canada** : At least one component is not listed.

**China** : Not determined.

**Eurasian Economic Union** : **Russian Federation inventory**: Not determined.

**Japan** : **Japan inventory (CSCL)**: Not determined.

**Japan inventory (ISHL)**: At least one component is not listed.

**New Zealand** : Not determined.

## SECTION 15: Regulatory information

<b>Philippines</b>	: At least one component is not listed.
<b>Republic of Korea</b>	: At least one component is not listed.
<b>Taiwan</b>	: At least one component is not listed.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: 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.

<b>Abbreviations and acronyms</b>	: 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
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### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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

### Full text of abbreviated H statements

#### United Kingdom: Great Britain

<b>Full text of abbreviated H statements</b>	: 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. 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. H412 Harmful to aquatic life with long lasting effects. EUH071 Corrosive to the respiratory tract.
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<b>Full text of classifications [CLP/GHS]</b>	: 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 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 Chronic 1 Aquatic LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Chronic 3 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
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## SECTION 16: Other information

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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### 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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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.