



# SAFETY DATA SHEET

Zinsser Bulls-Eye® 1-2-3

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

### 1.1 Product identifier

**Product name** : Zinsser Bulls-Eye® 1-2-3  
**Product description** : Paint.  
**Product type** : Liquid.

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

Identified uses	
Industrial uses: Uses of substances as such or in preparations* at industrial sites Consumer uses: Private households (= general public = consumers) Professional uses: Public domain (administration, education, entertainment, services, craftsmen)	
Uses advised against	Reason
None identified.	-

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

Manufactured under license in the UK by  
Tor Coatings Limited  
Portobello Industrial Estate  
Birtley  
County Durham  
United Kingdom  
DH3 2RE  
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@ro-m.com

### 1.4 Emergency telephone number

**Telephone number** : +44 (0) 207 858 1228  
**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]**

Aquatic Chronic 3, H412

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

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : R52/53

**Environmental hazards** : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

## SECTION 2: Hazards identification

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

### 2.2 Label elements

- Signal word** : No signal word.
- Hazard statements** : Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- General** : Keep out of reach of children. Read label before use. If medical advice is needed: Have product container or label at hand.
- Prevention** : Avoid release to the environment.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Contains 4,5-dichloro-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) and 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
- 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

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

## SECTION 3: Composition/information on ingredients

**Substance/mixture** : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
ethanediol	REACH #: 01-2119456816-28 EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	1 - <3	Xn; R22	Acute Tox. 4, H302 STOT RE 2, H373	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	0.25 - <2.5	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
4,5-dichloro-2-octyl-2H-isothiazol-3-one	EC: 264-843-8 CAS: 64359-81-5	<0.03	Xn; R21/22 C; R34 Xi; R37 R43 N; R50	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400	[1]

### SECTION 3: Composition/information on ingredients

1,2-benzisothiazol-3 (2H)-one	EC: 220-120-9 CAS: 2634-33-5 Index: 613-088-00-6	<0.05	Xn; R22 Xi; R41, R38 R43 N; R50	Aquatic Chronic 1, H410 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400	[1]
bronopol (INN)	EC: 200-143-0 CAS: 52-51-7 Index: 603-085-00-8	<0.1	Xn; R21/22 Xi; R41, R37/38 N; R50  <b>See Section 16 for the full text of the R- phrases declared above.</b>	Acute Tox. 3, H301 Acute Tox. 2, H310 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400  <b>See Section 16 for the full text of the H statements declared above.</b>	[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, are PBTs or vPvBs 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

[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

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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
- 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

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

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

## SECTION 4: First aid measures

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.
- 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** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- 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

- : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

- : 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 (see Section 13). Preferably clean with a detergent. Avoid using solvents.

### 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

- 7.1 Precautions for safe handling** :
- Keep away from heat, sparks and flame. No sparking tools should be used.
  - Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
  - Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
  - Put on appropriate personal protective equipment (see Section 8).
  - Never use pressure to empty. Container is not a pressure vessel.
  - Always keep in containers made from the same material as the original one.
  - Comply with the health and safety at work laws.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

- 7.2 Conditions for safe storage, including any incompatibilities** :
- Store in accordance with local regulations.

**Notes on joint storage**

Keep away from: oxidising agents, strong alkalis, strong acids.

**Additional information on storage conditions**

Observe label precautions. Store between the following temperatures: 4 to 32°C (39.2 to 89.6°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

**7.3 Specific end use(s)**

**Recommendations** : Not available.

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

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**

Product/ingredient name	Exposure limit values
ethanediol	<p><b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b></p> <p>TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Particulate                      STEL: 104 mg/m<sup>3</sup> 15 minutes. Form: Vapour                      TWA: 52 mg/m<sup>3</sup> 8 hours. Form: Vapour                      STEL: 40 ppm 15 minutes. Form: Vapour                      TWA: 20 ppm 8 hours. Form: Vapour</p>

- 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

## SECTION 8: Exposure controls/personal protection

(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
ethanediol	DNEL	Long term Inhalation	35 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	35 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	7 mg/m <sup>3</sup>	Consumers	Local
	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
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>	Consumers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	0.83 mg/kg bw/day	Consumers	Systemic

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
ethanediol	Fresh water	10 mg/l	-
	Marine	1 mg/l	-
	Fresh water sediment	20.9 mg/kg	-
	Soil	1.53 mg/kg	-
	Sewage Treatment Plant	199.5 mg/l	-
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	-

## 8.2 Exposure controls

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

### 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 glasses with side shields. (EN166)

**Skin protection**

**Hand protection**

## SECTION 8: Exposure controls/personal 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.

**Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: > 8 hours (breakthrough time): disposable vinyl , butyl rubber .

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

\*\*\*TO BE TRANSLATED\*\*\*

EN 374-3 : 2003

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** : 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** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

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: During fumigation/spraying wear suitable respiratory equipment. organic vapour (Type A) and particulate filter (EN 140) .

**Environmental exposure controls** : Do not allow to enter drains or watercourses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid. [Emulsion.]

**Colour** : White.

**Odour** : Acrylic. [Slight]

**pH** : 9 to 10 [Basic.]

**Melting point/freezing point** : 0°C

**Initial boiling point and boiling range** : >100°C

**Flash point** : Closed cup: >100°C [Product does not sustain combustion.]

**Evaporation rate** : <1 compared with butyl acetate

**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.

## SECTION 9: Physical and chemical properties

<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not applicable.
<b>Vapour pressure</b>	: 1.5 kPa [20°C]
<b>Vapour density</b>	: >1 (Air = 1)
<b>Relative density</b>	: 1.26 (Water = 1)
<b>Solubility(ies)</b>	: Soluble in the following materials: cold water and hot water. Very slightly soluble in the following materials: methanol and acetone.
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Dynamic: 3000 to 8000 mPa·s
<b>Explosive properties</b>	: 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.
<b>Oxidising properties</b>	: Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: When exposed to high temperatures may produce hazardous decomposition products.
<b>10.5 Incompatible materials</b>	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO <sub>2</sub> and smoke can be generated.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

#### Acute toxicity



## SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol zinc oxide	LD50 Oral	Rat	4700 mg/kg	-
	LC50 Inhalation Dusts and mists	Mouse	2500 mg/m <sup>3</sup>	4 hours
4,5-dichloro-2-octyl-2H-isothiazol-3-one	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	>15 g/kg	-
1,2-benzisothiazol-3(2H)-one	LC50 Inhalation Dusts and mists	Rat	290 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	756 mg/kg	-
bronopol (INN)	LD50 Oral	Rat	1020 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	800 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	64 mg/kg	-
	LD50 Oral	Rat	180 mg/kg	-

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

### Acute toxicity estimates

Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-
	Skin - Mild irritant	Rabbit	-	555 milligrams	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
1,2-benzisothiazol-3(2H)-one	Skin - Mild irritant	Human	-	48 hours 5 Percent	-
bronopol (INN)	Skin - Moderate irritant	Human	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	80 milligrams	-

### 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

#### Conclusion/Summary

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

**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

#### 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

## SECTION 11: Toxicological information

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

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
bronopol (INN)	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethanediol	Category 2	Not determined	Not determined

### Aspiration hazard

Not available.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
4,5-dichloro-2-octyl-2H-isothiazol-3-one	Acute EC50 18 ppb Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 0.003 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.004 mg/l Fresh water	Daphnia spec. - Daphnia magna - Neonate	48 hours
	Acute EC50 5.22 to 7 ppb Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 22 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 14 to 26 ppb Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 2.7 to 3.3 ppb 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 4.4 to 4.9 ppm Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 1.6 to 2.8 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 0.4 to 2.8 mg/l	Algae	72 hours
	Acute EC50 1.6 to 3.2 ppm Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 36 to 51 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 20 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
bronopol (INN)			

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
1,2-benzisothiazol-3(2H)-one bronopol (INN)	OECD 303A	>90 % - Readily - 1 days	-	-
	OECD 301B	>70 % - Readily - 5 days	-	-

**Conclusion/Summary** : According to EC criteria: Expected to be inherently biodegradable This product has not been tested for biodegradation.

## SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethanediol	-	-	Readily
1,2-benzisothiazol-3(2H)-one	-	-	Readily
bronopol (INN)	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
ethanediol	-1.34 to -1.93	-	low
4,5-dichloro-2-octyl-2H-isothiazol-3-one	3.59	-	low
1,2-benzisothiazol-3(2H)-one	0.64	-	low
bronopol (INN)	0.18	-	low

### 12.4 Mobility in soil

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

**Mobility** : This product is not likely to volatilise rapidly into the air because of its low vapour pressure. Nonvolatile liquid.

### 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

### 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.

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

#### 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.

## SECTION 13: Disposal considerations

- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.  
Empty containers must be scrapped or reconditioned.  
Not emptied containers are hazardous waste.
- 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
<b>14.1 UN number</b>	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.
<b>Additional information</b>	-	-	-

- 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.

## SECTION 15: Regulatory information

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

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**CN code** : 3209 10 00

### 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

## SECTION 15: Regulatory information

- VOC for Ready-for-Use Mixture** : IIA/g. Primers. EU limit value for this product : 50g/l (2007) 30g/l (2010.)  
This product contains a maximum of 30 g/l VOC.
- Europe inventory** : Not determined.
- Priority List Chemicals (793/93/EEC)** : Listed

- 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
  - PBT = Persistent, Bioaccumulative and Toxic
  - PNEC = Predicted No Effect Concentration
  - RRN = REACH Registration Number
  - vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Aquatic Chronic 3, H412	Expert judgment

- Full text of abbreviated H statements** :
- H301 Toxic if swallowed.
  - H302 Harmful if swallowed.
  - H310 Fatal 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.
  - H331 Toxic if inhaled.
  - H335 May cause respiratory irritation.
  - H373 May cause 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.

- Full text of classifications [CLP/GHS]** :
- Acute Tox. 2, H310 ACUTE TOXICITY: SKIN - Category 2
  - Acute Tox. 3, H301 ACUTE TOXICITY: ORAL - Category 3
  - Acute Tox. 3, H331 ACUTE TOXICITY: INHALATION - Category 3
  - Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
  - Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1
  - Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1
  - Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3
  - Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
  - Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION - Category 1B
  - Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
  - Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1
  - STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
  - STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3

## SECTION 16: Other information

**Full text of abbreviated R phrases** : R22- Harmful if swallowed.  
R21/22- Harmful in contact with skin and if swallowed.  
R34- Causes burns.  
R41- Risk of serious damage to eyes.  
R37- Irritating to respiratory system.  
R38- Irritating to skin.  
R37/38- Irritating to respiratory system and skin.  
R43- May cause sensitisation by skin contact.  
R50- Very toxic to aquatic organisms.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** : C - Corrosive  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

**Date of printing** : 12-02-2015.

**Date of issue/ Date of revision** : 12-02-2015.

**Date of previous issue** : No previous validation.

**Version** : 1

### Notice to reader

***The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.***