



# SAFETY DATA SHEET

Cachemire Metallic Bronze

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

### 1.1 Product identifier

**Product name** : Cachemire Metallic Bronze  
**Product description** : Paint  
**Product type** : Liquid.  
**UFI** : UM01-D0J4-400G-8WHK

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

Identified uses	
Consumer use Professional use Industrial 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]

## SECTION 2: Hazards identification

Flam. Liq. 3, H226  
 Eye Irrit. 2, H319  
 Aquatic Acute 1, H400  
 Aquatic Chronic 1, H410

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.

### 2.2 Label elements

#### Hazard pictograms



#### Signal word

: Warning

#### Hazard statements

: H226 - Flammable liquid and vapour.  
 H319 - Causes serious eye irritation.  
 H410 - Very toxic 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 eye or face protection.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273 - Avoid release to the environment.

##### Response

: P391 - Collect spillage.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

##### Storage

: P403 + P235 - Store in a well-ventilated place. Keep cool.

##### Disposal

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

#### Supplemental label elements

: EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

#### 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.

Cachemire Metallic Bronze

**SECTION 2: Hazards identification**

**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
copper	REACH #: 01-2119480154-42 EC: 231-159-6 CAS: 7440-50-8	≥10 - ≤25	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 10 M [Chronic] = 10	[1] [2]
ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≤10	Flam. Liq. 2, H225 Eye Irrit. 2, H319	-	[1] [2]
Zinc powder - zinc dust (stabilized)	REACH #: 01-2119467174-37 EC: 231-175-3 CAS: 7440-66-6 Index: 030-001-01-9	≤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  <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 221 mg/kg ATE [Inhalation (dusts and mists)] = 0,14 mg/l M [Acute] = 1000 M [Chronic] = 10	[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, 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

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- |                                   |  |
|-----------------------------------|--|
| <b>Eye contact</b>                | : 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.  |
| <b>Inhalation</b>                 | : 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.   |
| <b>Skin contact</b>               | : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.  |
| <b>Ingestion</b>                  | : 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. |
| <b>Protection of first-aiders</b> | : 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

#### Over-exposure signs/symptoms

- |                     |  |
|---------------------|--|
| <b>Eye contact</b>  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
| <b>Inhalation</b>   | : No specific data.  |
| <b>Skin contact</b> | : No specific data.  |
| <b>Ingestion</b>    | : No specific data.  |

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

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- |                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam. |
| <b>Unsuitable extinguishing media</b> | : Do not use water jet.  |

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

## SECTION 5: Firefighting measures

- Hazards from the substance or mixture** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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 spill material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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. Collect spillage.

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

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

## SECTION 6: Accidental release measures

- 6.4 Reference to other sections** :
- See Section 1 for emergency contact information.
  - See Section 8 for information on appropriate personal protective equipment.
  - See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

### 7.1 Precautions for safe handling

- Protective measures** :
- Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. 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

Do not store below the following temperature: 0°C (32°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidising materials. 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.

#### Seveso Directive - Reporting thresholds

##### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c E1	5000 tonne 100 tonne	50000 tonne 200 tonne

### 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

**United Kingdom: Great Britain**

**SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Exposure limit values
copper	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 0,2 mg/m <sup>3</sup> , (as Cu) 8 hours. Form: Fume
ethanol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 1920 mg/m <sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.

**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
ethanol	DNEL	Long term Inhalation	950 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	1900 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	343 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	114 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	950 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Dermal	206 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	87 mg/kg bw/day	General population	Systemic
Zinc powder - zinc dust (stabilized)	DNEL	Long term Inhalation	5 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	2,5 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Oral	50 mg/day	Workers	Local
	DNEL	Short term Dermal	5000 mg/day	Workers	Local
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	5 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2,5 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	6,81 mg/m <sup>3</sup>	Workers	Systemic
1,2-benzisothiazol-3(2H)-one	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
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic

**PNECs**



**SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Compartment Detail	Value	Method Detail
ethanol	Fresh water	0,96 mg/l	-
	Marine water	0,79 mg/l	-
	Sewage Treatment Plant	580 mg/l	-
Zinc powder - zinc dust (stabilized)	Fresh water sediment	3,6 mg/kg	-
	Marine water sediment	2,9 mg/kg	-
	Soil	0,63 mg/kg	-
	Fresh water	20,6 µg/l	-
	Marine	6,1 µg/l	-
	Sewage Treatment Plant	52 µg/l	-
	Fresh water sediment	118 mg/kg dwt	-
	Marine water sediment	56,5 mg/kg dwt	-
	Soil	35,6 mg/kg dwt	-
	Fresh water sediment	235,6 mg/kg dwt	-
1,2-benzisothiazol-3(2H)-one	Marine water sediment	121 mg/kg dwt	-
	Soil	106,8 mg/kg dwt	-
	Sewage Treatment Plant	100 µg/l	-
	Fresh water	0,00403 mg/l	-
	Marine water	0,000403 mg/l	-
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	-

**8.2 Exposure controls****Appropriate engineering controls**

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures****Hygiene measures**

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. 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: chemical splash goggles.

**Skin 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.

**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): polyethylene (PE), neoprene (0.65mm), Butyl rubber gloves (0.60mm)

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

**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: organic vapour (Type A) and particulate filter (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

<b>Physical state</b>	: Liquid.
<b>Colour</b>	: Bronze.
<b>Odour</b>	: Characteristic. [Slight]
<b>Odour threshold</b>	: Not available.
<b>Melting point/freezing point</b>	: 0°C [Literature]
<b>Initial boiling point and boiling range</b>	: >100°C (>212°F) [Literature]

**SECTION 9: Physical and chemical properties**

<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosion limit</b>	: Not available.
<b>Flash point</b>	: Closed cup: 40°C (104°F) [Literature]
<b>Auto-ignition temperature</b>	: Not relevant due to nature of the product.
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: 7 to 8 [Conc. (% w/w): 100%] [OECD 122]
<b>pH : Justification</b>	: Not available.
<b>Viscosity</b>	: Dynamic (room temperature): 1950 to 2600 mPa·s [ASTM D562 [KU]] Kinematic (room temperature): 1625 to 2222 mm²/s [calculated.] Kinematic (40°C): >20,5 mm²/s [calculated.]

**Solubility(ies)**

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

<b>Solubility in water</b>	: Not available.
<b>Miscible with water</b>	: Yes.
<b>Partition coefficient: n-octanol/ water</b>	: Not applicable.
<b>Vapour pressure</b>	: 2,3 kPa (17,25 mm Hg) [Literature]
<b>Evaporation rate</b>	: <1 (butyl acetate = 1)
<b>Relative density</b>	: Not available.
<b>Density</b>	: 1,17 to 1,2 g/cm³ [20°C (68°F)] [DIN 53217]
<b>Vapour density</b>	: >1 [Air = 1]
<b>Explosive properties</b>	: No unusual hazard if involved in a fire.
<b>Oxidising properties</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

**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>	: The product is stable.
<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>	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
<b>10.5 Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidising materials
<b>10.6 Hazardous decomposition products</b>	: 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
ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	7 g/kg	-
1,2-benzisothiazol-3(2H)-one	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	-
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	-

**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)
copper	500	N/A	N/A	N/A	N/A
ethanol	7000	N/A	N/A	124,7	N/A
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

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Eyes - Moderate irritant	Rabbit	-	0,066666667 minutes 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Zinc powder - zinc dust (stabilized)	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

**Conclusion/Summary**

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

**Eyes** : Causes serious eye irritation.

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

**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
1,2-benzisothiazol-3(2H)-one	skin	Guinea pig	Sensitising

**Conclusion/Summary**

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

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

**SECTION 11: Toxicological information****Mutagenicity**

Product/ingredient name	Test	Experiment	Result
ethanol	-	Experiment: In vitro Subject: Mammalian-Animal	Positive
	-	Experiment: In vivo Subject: Mammalian-Animal	Positive

**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**

**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** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

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

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

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**SECTION 11: Toxicological information****Potential chronic health effects**

Not available.

<b>Conclusion/Summary</b>	: Based on available data, the classification criteria are not met.
<b>General</b>	: No known significant effects or critical hazards.
<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.

**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
copper	Acute IC50 5,4 mg/l Marine water	Aquatic plants - <i>Plantae</i> - Exponential growth phase	72 hours
ethanol	Acute EC50 17,921 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - <i>Artemia franciscana</i> - Larvae	48 hours
	Acute LC50 5680 mg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 12720 ppm Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
Zinc powder - zinc dust (stabilized)	Chronic NOEC 4,995 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Chronic NOEC 0,375 µl/L Fresh water	Fish - <i>Gambusia holbrooki</i> - Larvae	12 weeks
	Acute EC50 106 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase	72 hours
	Acute EC50 0,572 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 10000 µg/l Fresh water	Aquatic plants - <i>Lemna minor</i>	4 days
	Acute LC50 107 µg/l Fresh water	Daphnia spec. - <i>Daphnia pulex</i>	48 hours
	Acute LC50 182 µg/l Fresh water	Fish - <i>Oncorhynchus tshawytscha</i>	96 hours
	Chronic EC10 27,3 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase	72 hours
	Chronic EC10 59,2 µg/l Fresh water	Daphnia spec. - <i>Daphnia magna</i>	21 days
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - <i>Ceratophyllum demersum</i>	3 days
1,2-benzisothiazol-3(2H)-one	Chronic NOEC 178 µg/l Marine water	Crustaceans - <i>Palaemon elegans</i>	21 days
	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

**SECTION 12: Ecological information**

pyrithione zinc	Chronic NOEC 0,21 mg/l	Fish	28 days
	Chronic NOEL 0,0403 mg/l	Algae	72 hours
	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

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

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
ethanol	-	97,36 % - Readily - 20 days	-	-
1,2-benzisothiazol-3(2H)-one	-	67,74 % - Readily - 5 days	-	-
	OECD 303A	>90 % - Readily - 1 days	-	-

**Conclusion/Summary** : According to EC criteria: Expected to be inherently biodegradable Based on available data, the classification criteria are not met.

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

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
ethanol	-0,35	-	Low
1,2-benzisothiazol-3(2H)-one	0,64	-	Low
pyrithione zinc	0,9	11	Low

**12.4 Mobility in soil**

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

**Mobility** : Not available.

**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.

**European waste catalogue (EWC)**

Waste code	Waste designation
08 01 11*	waste paint and 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. 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>	UN1263	UN1263	UN1263	UN1263
<b>14.2 UN proper shipping name</b>	Paint	Paint	Paint. Marine pollutant	Paint
<b>14.3 Transport hazard class(es)</b>	3 	3 	3 	3 
<b>14.4 Packing group</b>	III	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
<b>Additional information</b>	<b>Limited quantity</b> 5L <b>Special provisions</b> 163, 367, 650 <b>Viscous liquid exception</b> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of	<b>Special provisions</b> 163, 367, 650 <b>Viscous liquid exception</b> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and	<b>Emergency schedules</b> F-E, S-E <b>Special provisions</b> 163, 223, 367, 955 <b>Viscous liquid exception</b> This class 3 viscous liquid that is also environmentally hazardous is not subject to regulation in packagings up to 5 L, provided the packagings meet the	The environmentally hazardous substance mark may appear if required by other transportation regulations. <b>Quantity limitation</b> Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging



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**SECTION 14: Transport information**

	4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.2.3.1.5.2. <b>Tunnel code</b> (D/E)	4.1.1.4 to 4.1.1.8 according to 2.2.3.1.5.2. <b>Remarks</b> : ≤ 5L: Limited Quantity	general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 according to 2.3.2.5. <b>Remarks</b> : ≤ 5L: Limited Quantity - IMDG 3.4	instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344. <b>Special provisions</b> A3, A72, A192
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**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/d. Interior/exterior trim and cladding paints for wood and metal. EU limit value for this product : 130g/l (2010.)  
This product contains a maximum of 130 g/l VOC.

**Industrial emissions (integrated pollution prevention and control) - Air**

: Listed

**Industrial emissions (integrated pollution prevention and control) - Water**

: 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**

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## SECTION 15: Regulatory information

Not listed.

**Aerosol dispensers** :

### Seveso Directive

This product is controlled under the Seveso Directive.

### Danger criteria

#### Category

P5c  
E1

**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

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: Not determined.
<b>China</b>	: All components are listed or exempted.
<b>Eurasian Economic Union</b>	: <b>Russian Federation inventory</b> : Not determined.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<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.

**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
Flam. Liq. 3, H226	Expert judgment
Eye Irrit. 2, H319	Expert judgment
Aquatic Acute 1, H400	Expert judgment
Aquatic Chronic 1, H410	Expert judgment

**Full text of abbreviated H statements****United Kingdom: Great Britain****Full text of abbreviated H statements**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.

**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
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

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**Notice to reader**

Cachemire Metallic Bronze

## SECTION 16: Other information

**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.

**MANUFACTURER'S DISCLAIMER:** the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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.