



## SAFETY DATA SHEET

### 525/C258 - ANTIFOULING 'D' PLUS- RED

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

##### 1.1. Product identifier

**Product name** 525/C258 - ANTIFOULING 'D' PLUS- RED  
**Product number** 525/C258/65P  
**UFI** UFI: 9KUP-52Y7-X001-MRRH

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

**Identified uses** AS A COATING TO DISCOURAGE FOULANT FORMATION ON BOAT HULLS AND MARINE STRUCTURES

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

<b>Supplier</b>	TEAL & MACKRILL LIMITED Lockwood Street HULL UK HU2 OHN +441482320194 (T) +441482219266 (F) info@teamac.co.uk	TEAL AND MACKRILL EU B.V. Zandvoortstaat 69 1976 BN IJMUIDEN THE NETHERLANDS +441482320194 (T) +441482219266 (F) info@teamac.co.uk
<b>Contact person</b>	Technical Department -, 08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri, as above	

##### 1.4. Emergency telephone number

**Emergency telephone** +44 (0) 1482 320194 Teamac (08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri)  
**SDS No.** 10417

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Flam. Liq. 3 - H226  
**Health hazards** Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317  
**Environmental hazards** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

##### 2.2. Label elements

###### Hazard pictograms



**Signal word**

Danger

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<b>Hazard statements</b>	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H410 Very toxic to aquatic life with long lasting effects.
<b>Precautionary statements</b>	P102 Keep out of reach of children. P101 If medical advice is needed, have product container or label at hand. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapour/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations.
<b>Supplemental label information</b>	EUH066 Repeated exposure may cause skin dryness or cracking.
<b>Contains</b>	CUPROUS OXIDE 29.31%, ROSIN 21.33%, ZINC PYRITHIONE 2.86%
<b>Supplementary precautionary statements</b>	P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P235 Store in a well-ventilated place. Keep cool.

**2.3. Other hazards**

This product does not contain any substances classified as PBT or vPvB.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>CUPROUS OXIDE 29%</b>		<b>10-30%</b>
CAS number: 1317-39-1	EC number: 215-270-7	REACH registration number: 01-2119513794-36-0000
M factor (Acute) = 100	M factor (Chronic) = 100	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H302	Xn;R22. N;R50/53.	
Acute Tox. 4 - H332		
Eye Dam. 1 - H318		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

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<b>ROSIN 21%</b> <span style="float: right;"><b>10-30%</b></span>		
CAS number: 8050-09-7	EC number: 232-475-7	REACH registration number: 01-2119480418-32-0032
<b>Classification</b> Skin Sens. 1 - H317	<b>Classification (67/548/EEC or 1999/45/EC)</b> R43	
<b>HYDROCARBONS, C9, AROMATICS</b> <span style="float: right;"><b>10-30%</b></span>		
CAS number: —	EC number: 918-668-5	REACH registration number: 01-2119455851-35-xxxx
<b>Classification</b> Flam. Liq. 3 - H226 STOT SE 3 - H335, H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R65. Xi;R37. N;R51/53. R10,R66,R67.	
<b>Calcium Carbonate</b> <span style="float: right;"><b>10-30%</b></span>		
CAS number: 1317-65-3	EC number: 215-279-6	
<b>Classification</b> Not Classified	<b>Classification (67/548/EEC or 1999/45/EC)</b> -	
<b>HYDROCARBONS, C9-C11, &lt;2% AROMATICS</b> <span style="float: right;"><b>5-10%</b></span>		
CAS number: —	EC number: 919-857-5	REACH registration number: 01-2119463258-33-XXXX
<b>Classification</b> Flam. Liq. 3 - H226 STOT SE 3 - H336 Asp. Tox. 1 - H304	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R65. R10,R66,R67.	
<b>Zinc Oxide</b> <span style="float: right;"><b>1-5%</b></span>		
CAS number: 1314-13-2	EC number: 215-222-5	REACH registration number: 01-2119463881-32
M factor (Acute) = 1	M factor (Chronic) = 1	
<b>Classification</b> Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	<b>Classification (67/548/EEC or 1999/45/EC)</b> N;R50/53.	

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<b>ZINC PYRITHIONE 2.9%</b>		<b>1-5%</b>
CAS number: 13463-41-7	EC number: 236-671-3	
M factor (Acute) = 1	M factor (Chronic) = 1	
<b>Classification</b> Acute Tox. 3 - H301 Acute Tox. 3 - H331 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	<b>Classification (67/548/EEC or 1999/45/EC)</b> T;R23. Xn;R22. Xi;R41. N;R50.	
<b>Red Iron Oxide</b>		<b>1-5%</b>
CAS number: 1309-37-1		
<b>Classification</b> Not Classified	<b>Classification (67/548/EEC or 1999/45/EC)</b> -	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>General information</b>	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
<b>Skin contact</b>	Rinse with water.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	During application and drying, solvent vapours will be emitted. Vapours in high concentrations are narcotic.
<b>Ingestion</b>	No specific symptoms known.
<b>Skin contact</b>	Discoloration of the skin.
<b>Eye contact</b>	No specific symptoms known. May be slightly irritating to eyes.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

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**Suitable extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

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

**Specific hazards** Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m<sup>3</sup>. Oxides of carbon. Oxides of nitrogen. Fire creates: Thermal decomposition or combustion products may include the following substances: Acid smoke or fumes. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>).

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## **SECTION 6: Accidental release measures**

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

**Personal precautions** Avoid inhalation of vapours and contact with skin and eyes. Ensure suitable respiratory protection is worn during removal of spillages in confined areas.

### 6.2. Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Vapours may accumulate on the floor and in low-lying areas. Use explosion proof electric equipment. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes. The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep container tightly closed. Keep containers upright. Protect from light. Store in closed original container at temperatures between 5°C and 25°C. Store away from the following materials: Oxidising materials. Acids. Alkalis.

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**Storage class** Flammable liquid storage. The storage and use of this product is subject to the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Dangerous Substances: DSEAR. Up to 250 litres of liquids with a flashpoint above 32C but below 55C may be kept in a workroom provided they are kept in closed containers in a marked, fire-resisting cupboard or bin. Larger quantities must be kept in a separate, marked storeroom conforming to the structural requirements contained in the HSE guidance note Storage of Flammable Liquids in Containers.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### CUPROUS OXIDE 29%

Long-term exposure limit (8-hour TWA): WEL 1 as Cu mg/m<sup>3</sup> total dust

Short-term exposure limit (15-minute): WEL 2 as Cu mg/m<sup>3</sup> total dust

##### HYDROCARBONS, C9, AROMATICS

Long-term exposure limit (8-hour TWA): WEL 19 ppm 100 mg/m<sup>3</sup> vapour

##### Calcium Carbonate

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

##### ZINC PYRITHIONE 2.9%

Long-term exposure limit (8-hour TWA): WEL 0.35 mg/m<sup>3</sup>

##### Red Iron Oxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

Short-term exposure limit (15-minute): WEL 10 mg/m<sup>3</sup>

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WEL = Workplace Exposure Limit.

#### CUPROUS OXIDE (CAS: 1317-39-1)

<b>DNEL</b>	Workers - Dermal; Long term systemic effects: 137 mg/kg/day Workers - Dermal; Long term systemic effects: 13.7 slurries or copper compounds in solution mg/kg/day
<b>PNEC</b>	- Fresh water; micro l/g dissolved Cu/L - marine water; 5.2 micro l/g dissolved Cu/L - Sediment (Freshwater); 87 mg/kg - Sediment (Marinewater); 676 mg/kg - Soil; 65 mg/kg - STP; 0.23 mg/l

#### ROSIN 21% (CAS: 8050-09-7)

<b>DNEL</b>	Workers - Dermal; Long term : 25 mg/kg/day Workers - Inhalation; Long term : 176.32 mg/m <sup>3</sup> General population - Dermal; Long term : 15 mg/kg/day General population - Inhalation; Long term : 52.174 mg/m <sup>3</sup> General population - Oral; Long term : 15 mg/kg/day
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<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 0.005 mg/l</li> <li>- marine water; 0.0005 mg/l</li> <li>- STP; 1000 mg/l</li> <li>- Sediment (Marinewater); 10.8 mg/kg</li> <li>- Soil; 21.4 mg/kg</li> </ul>
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**HYDROCARBONS, C9, AROMATICS**

<b>DNEL</b>	<p>Consumer - Oral; Long term systemic effects: 11 mg/kg/day</p> <p>Consumer - Dermal; Long term systemic effects: 11 mg/kg/day</p> <p>Consumer - Inhalation; Long term systemic effects: 32 mg/m<sup>3</sup></p> <p>Industry - Dermal; Long term systemic effects: 25 mg/kg/day</p> <p>Industry - Inhalation; Long term systemic effects: 150 mg/m<sup>3</sup></p>
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<b>PNEC</b>	No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.
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**HYDROCARBONS, C9-C11, <2% AROMATICS**

<b>DNEL</b>	<p>Industry - Inhalation; Long term systemic effects: 1500 mg/m<sup>3</sup></p> <p>Consumer - Oral; Long term systemic effects: 300 mg/kg/day</p> <p>Consumer - Dermal; Long term systemic effects: 300 mg/kg/day</p> <p>Industry - Dermal; Long term systemic effects: 300 mg/kg/day</p> <p>Consumer - Inhalation; Long term systemic effects: 900 mg/m<sup>3</sup></p>
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<b>PNEC</b>	No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.
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**Zinc Oxide (CAS: 1314-13-2)**

<b>DNEL</b>	<p>Professional - Dermal; Long term systemic effects: 83 mg/kg/day</p> <p>Professional - Inhalation; Long term systemic effects: 5 mg/m<sup>3</sup></p> <p>Consumer - Inhalation; Long term systemic effects: 2.5 mg/m<sup>3</sup></p> <p>Consumer - Dermal; Long term systemic effects: 83 mg/kg/day</p> <p>Consumer - Oral; Long term systemic effects: 0.83 mg/kg</p>
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<b>PNEC</b>	<ul style="list-style-type: none"> <li>- Fresh water; 0.0206 mg/l</li> <li>- marine water; 0.0061 mg/l</li> <li>- Sediment (Freshwater); 117 mg/kg</li> <li>- STP; 0.1 mg/l</li> <li>- Sediment (Marinewater); 56.5 mg/kg</li> <li>- Soil; 35.6 mg/kg</li> </ul>
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**8.2. Exposure controls****Protective equipment****Appropriate engineering controls**

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

**Personal protection**

Unprotected persons should be kept away from treated areas.

**Eye/face protection**

Wear chemical splash goggles.

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<b>Hand protection</b>	To protect hands from chemicals, gloves should comply with European Standards EN388 and 374. As a general principle, exposure should be managed by means other than the provision of protective gloves. Manufacturers' performance data suggest that the optimum glove for use should be: Polyvinyl alcohol (PVA). Thickness: $\geq 0.2 - 0.3$ mm or Polyethylene. Thickness: $\geq 0.062$ mm Permeation breakthrough time according to EN374 - class: (1-6) e.g. minimum 480 mins. Caution: The performance of gloves under actual working conditions can be significantly affected by many factors and the information provided according to EN374 may not accord with what is achieved in practice. We recommend that expert professional advice is sought that takes into account of the work processes and working environment applicable for each task where gloves are to be worn.
<b>Other skin and body protection</b>	Wear suitable protective clothing (coveralls of a contrasting colour to the product being applied, underneath a disposable coverall with hood), suitable gloves and impervious footwear that protects the lower leg
<b>Hygiene measures</b>	Use engineering controls to reduce air contamination to permissible exposure level. Wash promptly with soap and water if skin becomes contaminated. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
<b>Respiratory protection</b>	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a full facepiece, supplied-air respirator. Only PROFESSIONALS are permitted to apply this product by spray. Air-fed respiratory protective equipment with combined helmet and visor should be worn when this product is sprayed. This should be in addition to other measures to reduce exposure (e.g. in booth design and operation and process modifications).
<b>Environmental exposure controls</b>	IMPORTANT: Application, maintenance and repair activities must be conducted within a contained area to prevent losses and minimise emissions to the environment. This means activities must take place on impermeable hard standings with bunding or on soil covered with an impermeable material. Any losses or waste containing antifouling biocides shall be collected for reuse or disposal.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Coloured liquid. Viscous liquid.
<b>Colour</b>	Red.
<b>Odour</b>	Organic solvents.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Technically not feasible.
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	38°C Closed cup.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	: 0.8
<b>Other flammability</b>	Not determined.
<b>Vapour pressure</b>	Not determined.



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<b>Vapour density</b>	Heavier than air
<b>Relative density</b>	1.60 - 1.64 @ 20°C
<b>Solubility(ies)</b>	Insoluble in water
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	400°C
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	4.5 P @ 25C Rotthinner°C
<b>Explosive properties</b>	Not determined.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Not determined.

### 9.2. Other information

<b>Volatility</b>	34
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 287 g/litre.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Not determined.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid contact with the following materials: Acids. Oxidising agents.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Oxydising agents and strongly acidic materials.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Toxicological effects</b>	No data recorded.
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#### Acute toxicity - oral

<b>ATE oral (mg/kg)</b>	1,981.47
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#### Acute toxicity - inhalation

<b>ATE inhalation (gases ppm)</b>	24,479.8
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<b>ATE inhalation (vapours mg/l)</b>	104.91
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**ATE inhalation (dusts/mists mg/l)** 6.9

<b>General information</b>	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
<b>Inhalation</b>	May cause respiratory system irritation. Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. The product contains organic solvents. Overexposure may depress the central nervous system, causing dizziness and intoxication.
<b>Ingestion</b>	Liquid irritates mucous membranes and may cause abdominal pain if swallowed. May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea. May cause nausea, headache, dizziness and intoxication.
<b>Skin contact</b>	May be absorbed through the skin. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact eczema.
<b>Eye contact</b>	Irritation of eyes and mucous membranes.
<b>Route of exposure</b>	Inhalation Skin absorption. Ingestion. Skin and/or eye contact.

**Toxicological information on ingredients.****CUPROUS OXIDE 29%****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,340.0

**Species** Rat

**ATE oral (mg/kg)** 1,340.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 3.34

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 3.34

**Skin corrosion/irritation**

**Extreme pH** Not irritating.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Not irritating.

**Skin sensitisation**

**Skin sensitisation** Epidemiological studies have shown no evidence of skin sensitisation.

**ROSIN 21%****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,800.0

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**Species** Rat  
**ATE oral (mg/kg)** 2,800.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,001.0

**Species** Rabbit  
**ATE dermal (mg/kg)** 2,001.0

**HYDROCARBONS, C9, AROMATICS****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 3,492.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 3,492.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 3,160.0

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 3,160.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 6,193.0

**Species** Rat

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE inhalation (vapours mg/l)** 6,193.0

**Skin corrosion/irritation**

**Animal data** Repeated exposure may cause skin dryness or cracking.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

**Respiratory sensitisation**

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

**Skin sensitisation**

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

**Germ cell mutagenicity**

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<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b>IARC carcinogenicity</b>	None of the ingredients are listed or exempt.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	STOT SE 3 - H335, H336 May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Target organs</b>	Respiratory system, lungs Central nervous system
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing. Vapours may cause headache, fatigue, dizziness and nausea. Central nervous system depression. During application and drying, solvent vapours will be emitted. Vapours in high concentrations are narcotic.
<b>Ingestion</b>	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking. Discoloration of the skin.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	Central nervous system Respiratory system, lungs

### Zinc Oxide

#### Acute toxicity - oral

<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	5,100.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	5,100.0

**525/C258 - ANTIFOULING 'D' PLUS- RED****Acute toxicity - dermal**

Acute toxicity dermal (LD<sub>50</sub> 5,100.0 mg/kg)

Species Rat

ATE dermal (mg/kg) 5,100.0

**Acute toxicity - inhalation**

Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l) 5.71

Species Rat

ATE inhalation (dusts/mists mg/l) 5.71

**ZINC PYRITHIONE 2.9%****Acute toxicity - oral**

ATE oral (mg/kg) 100.0

**Acute toxicity - dermal**

Acute toxicity dermal (LD<sub>50</sub> 2,000.0 mg/kg)

Species Rat

**Skin corrosion/irritation**

Animal data Not irritating.

**Respiratory sensitisation**

Respiratory sensitisation Not sensitising.

**Skin sensitisation**

Skin sensitisation Not sensitising.

**Carcinogenicity**

Carcinogenicity There is no evidence that the product can cause cancer.

**Specific target organ toxicity - repeated exposure**

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

**SECTION 12: Ecological information**

**Ecotoxicity** There are no data on the ecotoxicity of this product. The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**Ecological information on ingredients.****CUPROUS OXIDE 29%**

**Ecotoxicity** The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**12.1. Toxicity****Ecological information on ingredients.**

**525/C258 - ANTIFOULING 'D' PLUS- RED****CUPROUS OXIDE 29%****Acute aquatic toxicity**LE(C)<sub>50</sub> 0.001 < L(E)C<sub>50</sub> ≤ 0.01

M factor (Acute) 100

**Chronic aquatic toxicity**

M factor (Chronic) 100

**ROSIN 21%****Acute aquatic toxicity**Acute toxicity - fish LL<sub>50</sub>, 96 hours: >1000 mg/l, Brachydanio rerio (Zebra Fish)Acute toxicity - aquatic invertebrates EC<sub>50</sub>, 48 hours: 911 mg/l, Daphnia magnaAcute toxicity - aquatic plants EC<sub>50</sub>, 72 hours: >1000 mg/l,**HYDROCARBONS, C9, AROMATICS**

Toxicity Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

**Acute aquatic toxicity**Acute toxicity - fish LC<sub>50</sub>, 96 hours: 9.2 mg/l, Oncorhynchus mykiss (Rainbow trout)Acute toxicity - aquatic invertebrates EC<sub>50</sub>, 48 hours: 3.2 mg/l, Daphnia magnaAcute toxicity - microorganisms EC<sub>50</sub>, 48 hours: 2.9 mg/l,**Chronic aquatic toxicity**

Chronic toxicity - fish early life stage NOEC, 28 days: 1.23 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity - aquatic invertebrates NOEC, 21 : 2.14 mg/l, Daphnia magna

**Zinc Oxide****Acute aquatic toxicity**LE(C)<sub>50</sub> 0.1 < L(E)C<sub>50</sub> ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC<sub>50</sub>, 96 hours: 1.1 to 2.5 ppm , Oncorhynchus mykiss (Rainbow trout)Acute toxicity - aquatic invertebrates EC<sub>50</sub>, 48 hours: 1 mg/l, Daphnia magna  
NOEC, 48 hours: 0.4 mg/l, Daphnia magnaAcute toxicity - aquatic plants EC<sub>50</sub>, 72 hours: 0.17 mg/l, Selenastrum capricornutum  
NOEC, 72 hours: 0.017 mg/l, Selenastrum capricornutum**Chronic aquatic toxicity**

NOEC 0.01 &lt; NOEC ≤ 0.1

**525/C258 - ANTIFOULING 'D' PLUS- RED**

<b>Degradability</b>	Non-rapidly degradable
<b>M factor (Chronic)</b>	1

**ZINC PYRITHIONE 2.9%****Acute aquatic toxicity**

<b>LE(C)<sub>50</sub></b>	0.1 < L(E)C <sub>50</sub> ≤ 1
<b>M factor (Acute)</b>	1
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , ~ 96 hours: 0.0026 mg/l, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , ~ 48 hours: 0.0082 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 96 hours: 0.0012 mg/l, Marinewater algae
<b><u>Chronic aquatic toxicity</u></b>	
<b>M factor (Chronic)</b>	1

**12.2. Persistence and degradability**

**Persistence and degradability** No data available.

**Ecological information on ingredients.****ROSIN 21%**

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Biodegradation</b>	- Degradation 71%: 28 days

**HYDROCARBONS, C9, AROMATICS**

<b>Persistence and degradability</b>	The degradability of the product is not known.
<b>Biodegradation</b>	- 78%: 28 days

**ZINC PYRITHIONE 2.9%**

<b>Persistence and degradability</b>	The product is readily biodegradable.
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**12.3. Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

**Ecological information on ingredients.****ROSIN 21%**

<b>Partition coefficient</b>	log K <sub>ow</sub> : > 6 Probably
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**HYDROCARBONS, C9, AROMATICS**

**Bioaccumulative potential** No data available on bioaccumulation.

**525/C258 - ANTIFOULING 'D' PLUS- RED**

**Partition coefficient** Not available.

**Zinc Oxide**

**Partition coefficient** log Pow: 2.2

**ZINC PYRITHIONE 2.9%**

**Bioaccumulative potential** BCF: 50,

**Partition coefficient** log Pow: 0.93

**12.4. Mobility in soil**

**Mobility** The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

**Ecological information on ingredients.****HYDROCARBONS, C9, AROMATICS**

**Mobility** No data available.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**Ecological information on ingredients.****HYDROCARBONS, C9, AROMATICS**

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

**ZINC PYRITHIONE 2.9%**

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

**12.6. Other adverse effects**

**Other adverse effects** The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

**Ecological information on ingredients.****HYDROCARBONS, C9, AROMATICS**

**Other adverse effects** None known.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**General information** Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.



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### Waste class

When this coating, in its liquid state, as supplied, becomes a waste, it is categorised as hazardous waste, with code 08 01 11\* (SOLVENT BASED LIQUID WASTE). Part-used containers, not drained and/or rigorously scraped out and containing dried residues of the supplied coating, are categorised as hazardous waste, with code 08 01 11\* (SOLVENT BASED LIQUID WASTE). If mixed with other wastes, the above waste code may not be applicable. Used containers, drained and/or rigorously scraped out and containing dry residues of the supplied coating, are categorised as non-hazardous waste, with code 15 01 02 (plastic packaging) or 15 01 04 (metal packaging).

### SECTION 14: Transport information

**General** This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG.

#### 14.1. UN number

UN No. (ADR/RID)	1263
UN No. (IMDG)	1263
UN No. (ICAO)	1263

#### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	Contains 1,2,4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) and Copper (1) Oxide, MARINE POLLUTANTS
<b>Proper shipping name (IMDG)</b>	Contains 1,2,4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) and Copper (1) Oxide, MARINE POLLUTANTS
<b>Proper shipping name (ICAO)</b>	Contains 1,2,4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) and Copper (1) Oxide, MARINE POLLUTANTS

#### 14.3. Transport hazard class(es)

ADR/RID class	3
IMDG class	3
ICAO class/division	3

#### Transport labels



#### 14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III

#### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**



#### 14.6. Special precautions for user

EmS	F-E, S-E
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Tunnel restriction code (D/E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	This product is approved under the Control of Pesticides Regulations 1986. Product C/258/Series - H.S.E. No. 7218.
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ATE: Acute Toxicity Estimate.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>GHS: Globally Harmonized System.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.</p> <p>cATpE: Converted Acute Toxicity Point Estimate.</p> <p>BCF: Bioconcentration Factor.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p>
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<b>Classification abbreviations and acronyms</b>	<p>Acute Tox. = Acute toxicity          Aquatic Acute = Hazardous to the aquatic environment (acute)          Aquatic Chronic = Hazardous to the aquatic environment (chronic)          Asp. Tox. = Aspiration hazard          Carc. = Carcinogenicity          Eye Dam. = Serious eye damage          Eye Irrit. = Eye irritation          Flam. Liq. = Flammable liquid          Repr. = Reproductive toxicity          Resp. Sens. = Respiratory sensitisation          Skin Corr. = Skin corrosion          Skin Irrit. = Skin irritation          Skin Sens. = Skin sensitisation          STOT RE = Specific target organ toxicity-repeated exposure          STOT SE = Specific target organ toxicity-single exposure</p>
<b>Training advice</b>	<p>It is recommended that all users of these materials should ensure that they are properly trained in the operation, use and working practices associated with this class of products. This may be in the form of supervised experience, manufacturers training or preferably nationally accredited training courses.</p>
<b>Revision comments</b>	<p>Issued in new format for Reach compliance in accordance with EC 1272/2008 Issued in accordance with Annex II to REACH, as amended by Commission Regulation (EU) No. 2015/830 Revision to sections 2, 8, 11 &amp; 12 for reclassification of solvents.</p>
<b>Issued by</b>	Technical Dept. (P.E.)
<b>Revision date</b>	17/03/2021
<b>Revision</b>	10.1
<b>Supersedes date</b>	25/01/2019
<b>SDS number</b>	10417
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	<p>H226 Flammable liquid and vapour.          H301 Toxic if swallowed.          H302 Harmful if swallowed.          H304 May be fatal if swallowed and enters airways.          H317 May cause an allergic skin reaction.          H318 Causes serious eye damage.          H331 Toxic if inhaled.          H332 Harmful if inhaled.          H335 May cause respiratory irritation.          H336 May cause drowsiness or dizziness.          H400 Very toxic to aquatic life.          H410 Very toxic to aquatic life with long lasting effects.          H411 Toxic to aquatic life with long lasting effects.</p>
<b>Signature</b>	Initials .....

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.