MARINE AND INDUSTRIAL COATINGS SINCE 1908

SAFETY DATA SHEET
525/C259 - PROTECTOR II ANTIFOULING - ALL COLOURS

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/C259 - PROTECTOR II ANTIFOULING - ALL COLOURS

Product number 525/C259/All colours

UFI UFI: PK3P-H2YU-U00E-A8K7

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

Supplier

TEAL & MACKRILL LIMITED
Lockwood Street
HULL UK
HU2 OHN
+441482320194 (T)
+441482219266 (F)
info@teamac.co.uk

TEAL AND MACKRILL EU B.V.
Zandvoorrtstaat 69
1976 BN IJMUIDEN
THE NETHERLANDS
+441482320194 (T)
+441482219266 (F)
info@teamac.co.uk

Contact person 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. 20674 (replaces 10964)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards 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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Hazard statements	H226 Flammable liquid and vapour. H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	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. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. 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.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	DICOPPER OXIDE, ROSIN
Supplementary precautionary statements	P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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

DICOPPER OXIDE **25.5 - 26.5% wt.**

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	

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Xn;R22. N;R50/53.

ROSIN **21 - 23 % wt.**

CAS number: 8050-09-7	EC number: 232-475-7	REACH registration number: 01-2119480418-32-0032

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Sens. 1 - H317	R43

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HYDROCARBONS, C9, AROMATICS		10-30%
CAS number: —	EC number: 918-668-5	REACH registration number: 01-2119455851-35-xxxx

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226 STOT SE 3 - H335, H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Xn;R65. Xi;R37. N;R51/53. R10,R66,R67.

Zinc Oxide		1-5%
CAS number: 1314-13-2	EC number: 215-222-5	REACH registration number: 01-2119463881-32
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification	Classification (67/548/EEC or 1999/45/EC)
Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	N;R50/53.

HYDROCARBONS, C9-C11, <2% AROMATICS		1-5%
CAS number: —	EC number: 919-857-5	REACH registration number: 01-2119463258-33-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226 STOT SE 3 - H336 Asp. Tox. 1 - H304	Xn;R65. R10,R66,R67.

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

General information If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Inhalation 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.

Ingestion Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Skin contact Rinse with water.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

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Inhalation	During application and drying, solvent vapours will be emitted. Vapours in high concentrations are narcotic.
Ingestion	No specific symptoms known.
Skin contact	Discoloration of the skin.
Eye contact	No specific symptoms known. May be slightly irritating to eyes.

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

Notes for the doctor	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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/m3. Oxides of carbon. Oxides of nitrogen. Fire creates: Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

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

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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.

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

DICOPPER OXIDE

Long-term exposure limit (8-hour TWA): WEL 1 as Cu mg/m3 total dust
Short-term exposure limit (15-minute): WEL 2 as Cu mg/m3 total dust

HYDROCARBONS, C9, AROMATICS

Long-term exposure limit (8-hour TWA): WEL 19 ppm 100 mg/m³ vapour
WEL = Workplace Exposure Limit.

DICOPPER OXIDE (CAS: 1317-39-1)

DNEL 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

PNEC
- 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 (CAS: 8050-09-7)

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DNEL

Workers - Dermal; Long term : 25 mg/kg/day
Workers - Inhalation; Long term : 176.32 mg/m³
General population - Dermal; Long term : 15 mg/kg/day
General population - Inhalation; Long term : 52.174 mg/m³
General population - Oral; Long term : 15 mg/kg/day

PNEC

- Fresh water; 0.005 mg/l
- marine water; 0.0005 mg/l
- STP; 1000 mg/l
- Sediment (Marinewater); 10.8 mg/kg
- Soil; 21.4 mg/kg

HYDROCARBONS, C9, AROMATICS

DNEL

Consumer - Oral; Long term systemic effects: 11 mg/kg/day
Consumer - Dermal; Long term systemic effects: 11 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 32 mg/m³
Industry - Dermal; Long term systemic effects: 25 mg/kg/day
Industry - Inhalation; Long term systemic effects: 150 mg/m³

PNEC

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.

Zinc Oxide (CAS: 1314-13-2)

DNEL

Professional - Dermal; Long term systemic effects: 83 mg/kg/day
Professional - Inhalation; Long term systemic effects: 5 mg/m³
Consumer - Inhalation; Long term systemic effects: 2.5 mg/m³
Consumer - Dermal; Long term systemic effects: 83 mg/kg/day
Consumer - Oral; Long term systemic effects: 0.83 mg/kg

PNEC

- Fresh water; 0.0206 mg/l
- marine water; 0.0061 mg/l
- Sediment (Freshwater); 117 mg/kg
- STP; 0.1 mg/l
- Sediment (Marinewater); 56.5 mg/kg
- Soil; 35.6 mg/kg

HYDROCARBONS, C9-C11, <2% AROMATICS

DNEL

Industry - Inhalation; Long term systemic effects: 1500 mg/m³
Consumer - Oral; Long term systemic effects: 300 mg/kg/day
Consumer - Dermal; Long term systemic effects: 300 mg/kg/day
Industry - Dermal; Long term systemic effects: 300 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 900 mg/m³

PNEC

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.

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.
Personal protection	PREVENT CHILDREN TOUCHING WET PAINT. Unprotected persons should be kept away from treated areas.
Eye/face protection	Wear chemical splash goggles.
Hand protection	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: ≥ 0.2 - 0.3 mm or Polyethylene. Thickness: ≥ 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.
Other skin and body protection	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
Hygiene measures	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.
Respiratory protection	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. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405. Use respiratory equipment with gas filter, type A2. 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).
Environmental exposure controls	INPORTANT: 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

Appearance	Coloured liquid.
Colour	Various colours
Odour	Organic solvents.
Odour threshold	Not determined.
pH	Technically not feasible.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	~ 38°C Closed cup.
Evaporation rate	Not determined.

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Evaporation factor	Not determined.
Other flammability	Not determined.
Vapour pressure	Not determined.
Vapour density	heavier than air
Relative density	1.57 - 1.66 @ 20°C
Solubility(ies)	Insoluble in water
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	4.3 - 4.7 (Rotothinner) P @ 25°C
Explosive properties	Not determined.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not determined.

9.2. Other information

Volatility	Volatile.
Volatile organic compound	This product contains a maximum VOC content of 308 g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Acids. Oxidising agents.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No data recorded.

Acute toxicity - oral

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ATE oral (mg/kg)	5,134.1

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	12.8

General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
Inhalation	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.
Ingestion	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.
Skin contact	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.
Eye contact	Irritation of eyes and mucous membranes.
Route of exposure	Inhalation Skin absorption. Ingestion. Skin and/or eye contact.

Toxicological information on ingredients.

DICOPPER OXIDE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,340.0
Species	Rat
ATE oral (mg/kg)	1,340.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} 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

Acute toxicity - oral

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Acute toxicity oral (LD_{50} mg/kg)	2,800.0
Species	Rat
ATE oral (mg/kg)	2,800.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,001.0
Species	Rabbit
ATE dermal (mg/kg)	2,001.0

HYDROCARBONS, C9, AROMATICS

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	3,492.0
Species	Rat
Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	3,492.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	3,160.0
Species	Rabbit
Notes (dermal LD_{50})	Based on available data the classification criteria are not met.
ATE dermal (mg/kg)	3,160.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	6,193.0
Species	Rat
Notes (inhalation LC_{50})	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.

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Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	STOT SE 3 - H335, H336 May cause respiratory irritation. May cause drowsiness or dizziness.
Target organs	Respiratory system, lungs Central nervous system

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

Aspiration hazard	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.

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	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.
Ingestion	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.
Skin contact	Repeated exposure may cause skin dryness or cracking. Discoloration of the skin.
Eye contact	May cause temporary eye irritation.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target organs	Central nervous system Respiratory system, lungs

Zinc Oxide

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,100.0
Species	Rat

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ATE oral (mg/kg)	5,100.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	5,100.0
Species	Rat
ATE dermal (mg/kg)	5,100.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} dust/mist mg/l)	5.71
Species	Rat
ATE inhalation (dusts/mists mg/l)	5.71

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.

DICOPPER OXIDE

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.

DICOPPER OXIDE

Acute aquatic toxicity	
$LE(C)_{50}$	0.001 < L(E)C50 ≤ 0.01
M factor (Acute)	100
Chronic aquatic toxicity	
M factor (Chronic)	100

HYDROCARBONS, C9, AROMATICS

Toxicity	Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	
Acute toxicity - fish	LC_{50}, 96 hours: 9.2 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 3.2 mg/l, Daphnia magna
Acute toxicity - microorganisms	EC_{50}, 48 hours: 2.9 mg/l,
Chronic aquatic toxicity	

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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)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC50, 96 hours: 1.1 to 2.5 ppm , Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1 mg/l, Daphnia magna NOEC, 48 hours: 0.4 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 0.17 mg/l, Selenastrum capricornutum NOEC, 72 hours: 0.017 mg/l, Selenastrum capricornutum

Chronic aquatic toxicity

NOEC	0.01 < NOEC ≤ 0.1
Degradability	Non-rapidly degradable
M factor (Chronic)	1

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

HYDROCARBONS, C9, AROMATICS

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

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

HYDROCARBONS, C9, AROMATICS

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Not available.

Zinc Oxide

Partition coefficient	log Pow: 2.2

12.4. Mobility in soil

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

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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.

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.

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

Proper shipping name (ADR/RID) PAINT

Proper shipping name (IMDG) PAINT

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Proper shipping name (ICAO) PAINT

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

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

EU legislation 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

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.
GHS: Globally Harmonized System.
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
vPvB: Very Persistent and Very Bioaccumulative.
cATpE: Converted Acute Toxicity Point Estimate.
EC_{50}: 50% of maximal Effective Concentration.

Classification abbreviations and acronyms

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
Muta. = Germ cell mutagenicity
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

Training advice

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.

Revision comments

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 Unique Formula Identifier (UFI) added Addition of EU supplier information Change of product code

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Hazard statements in full

H226 Flammable liquid and vapour.
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.
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.

Signature

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.