

SAFETY DATA SHEET 525/C258 - ANTIFOULING 'D' PLUS -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/C258 - ANTIFOULING 'D' PLUS -ALL COLOURS

Product number 525/C258/2P/3P/4P/5P

UFI: HPUP-P2NN-700J-83AK

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 TEAL AND MACKRILL EU B.V.

Lockwood Street Queens Towers Hull Delflandlaan 1

HU2 OHN 1062 EA Amsterdam UK The Netherlands

+441482320194 (T) +31 (0)208 004828 (T) +441482219266 (F) +441482219266 (F) info@teamac.co.uk 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. 10489

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 Repr. 1A - H360D

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. H360D May damage the unborn child.

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. 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

EUH066 Repeated exposure may cause skin dryness or cracking.

information RCH002b For professional users only.

Contains CUPROUS OXIDE 29%, ROSIN 21%, ZINC PYRITHIONE 2.7%

Supplementary precautionary

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

statements 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

CUPROUS OXIDE 29%	10-30%
COLITION ON THE ED /0	10 00 /0

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 Xn;R22. N;R50/53.

Acute Tox. 4 - H332 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

ROSIN 21% 10-30%

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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Calcium Carbonate 10-30%

CAS number: 1317-65-3 EC number: 215-279-6

Classification Classification (67/548/EEC or 1999/45/EC)

Not Classified -

HYDROCARBONS, C9, AROMATICS 10-30%

CAS number: — EC number: 918-668-5 REACH registration number: 01-

2119455851-35-xxxx

Classification

Flam. Liq. 3 - H226

STOT SE 3 - H335, H336

Asp. Tox. 1 - H304

Aquatic Chronic 2 - H411

HYDROCARBONS, C9-C11, <2% AROMATICS 5-10%

CAS number: — EC number: 919-857-5 REACH registration number: 01-

2119463258-33-XXXX

Classification

Flam. Liq. 3 - H226 STOT SE 3 - H336 Asp. Tox. 1 - H304

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)

Aguatic Acute 1 - H400 N;R50/53.

Aquatic Chronic 1 - H410

ZINC PYRITHIONE 2.7%

M factor (Acute) = 1000 M factor (Chronic) = 10

Classification

Acute Tox. 3 - H301

Acute Tox. 3 - H331

Eye Dam. 1 - H318

Repr. 1A - H360D

Aquatic Acute 1 - H400

Aquatic Chronic 1 - H410

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

SECTION 4: First aid measures

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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.

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 Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

for firefighters clothing.

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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

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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.

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/m3 total dust Short-term exposure limit (15-minute): WEL 2 as Cu mg/m3 total dust

Calcium Carbonate

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

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Long-term exposure limit (8-hour TWA): WEL 19 ppm 100 mg/m³ vapour

ZINC PYRITHIONE 2.7%

Long-term exposure limit (8-hour TWA): WEL 0.35 mg/m³

WEL = Workplace Exposure Limit.

CUPROUS 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 I/g dissolved Cu/L

- marine water; 5.2 micro I/g dissolved Cu/L

- Sediment (Freshwater); 87 mg/kg

- Sediment (Marinewater); 676 mg/kg

Soil; 65 mg/kgSTP; 0.23 mg/l

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

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.

HYDROCARBONS, C9-C11, <2% AROMATICS

DNEL Industry - Inhalation; Long term systemic effects: 1500 mg/m³

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

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.

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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

Fresh water; 0.0206 mg/lmarine 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

8.2. Exposure controls

PNEC

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.

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).

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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. Viscous liquid.

Colour Red. Black. Blue. Grey. Green.

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.

Evaporation factor Not determined.

Upper/lower flammability or

explosive limits

Vapour pressure

: 0.8

Not determined.

Other flammability Not determined.

Vapour density Heavier than air

Relative density 1.44 - 1.62 @ 20C°C

Partition coefficient Not determined.

Decomposition Temperature Not determined.

Explosive properties Not determined.

Explosive under the influence

of a flame

Not considered to be explosive.

Oxidising properties Not determined.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

Not determined.

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10.4. Conditions to avoid

10.5. Incompatible materials

Materials to avoid Oxydising agents and strongly acidic materials.

10.6. Hazardous decomposition products

Hazardous decomposition

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

products

ATE oral (mg/kg) 2,039.24

Acute toxicity - inhalation

ATE inhalation (gases ppm) 25,768.21

ATE inhalation (vapours mg/l) 110.44

ATE inhalation (dusts/mists

mg/l)

7.04

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.

CUPROUS OXIDE 29%

Acute toxicity - oral

Acute toxicity oral (LD50

1,340.0

mg/kg)

Species Rat

ATE oral (mg/kg) 1,340.0

Acute toxicity - inhalation

Acute toxicity inhalation

3.34

(LC₅₀ dust/mist mg/l)

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Rat **Species**

ATE inhalation 3.34

(dusts/mists mg/l)

Skin corrosion/irritation

Extreme pH Not irritating.

Serious eye damage/irritation

Serious eye Not irritating.

damage/irritation

Skin sensitisation

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

ROSIN 21%

Acute toxicity - oral

Acute toxicity oral (LD₅o

2,800.0

mg/kg)

Species Rat

2,800.0 ATE oral (mg/kg)

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,001.0

mg/kg)

Species Rabbit

ATE dermal (mg/kg) 2,001.0

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Acute toxicity - oral

Acute toxicity oral (LD₅o

3,492.0

mg/kg)

Species Rat

Notes (oral LD50) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 3,492.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 3,160.0

mg/kg)

Species Rabbit

Notes (dermal LD50) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 3,160.0

Acute toxicity - inhalation

Acute toxicity inhalation

(LC50 vapours mg/l)

6,193.0

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Species Rat

Notes (inhalation LC₅₀) 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

Based on available data the classification criteria are not met.

damage/irritation

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

Genotoxicity - in vitroBased 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.

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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 (LD₅o

mg/kg)

5,100.0

Species Rat

ATE oral (mg/kg) 5,100.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,100.0

mg/kg) Species

Rat

ATE dermal (mg/kg) 5,100.0

Acute toxicity - inhalation

Acute toxicity inhalation

5.71

(LC₅₀ dust/mist mg/l)

Species Rat

ATE inhalation 5.71

(dusts/mists mg/l)

ZINC PYRITHIONE 2.7%

Acute toxicity - oral

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 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.

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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.

CUPROUS OXIDE 29%

Acute aquatic toxicity

LE(C)₅₀ $0.001 < L(E)C50 \le 0.01$

M factor (Acute) 100

Chronic aquatic toxicity

M factor (Chronic) 100

ROSIN 21%

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: >1000 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic

invertebrates

EC₈₀, 48 hours: 911 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₈₀, 72 hours: >1000 mg/l,

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

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 9.2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: 3.2 mg/l, Daphnia magna

Acute toxicity - EC₅o, 48 hours: 2.9 mg/l,

microorganisms

Chronic aquatic toxicity

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

life stage

Chronic toxicity - aquatic

invertebrates

NOEC, 21: 2.14 mg/l, Daphnia magna

Zinc Oxide

Acute aquatic toxicity

LE(C)₅₀ $0.1 < L(E)C50 \le 1$

M factor (Acute) 1

Acute toxicity - fish LC50, 96 hours: 1.1 to 2.5 ppm , Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 1 mg/l, Daphnia magna NOEC, 48 hours: 0.4 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅o, 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

ZINC PYRITHIONE 2.7%

Acute aquatic toxicity

LE(C)₅₀ $0.0001 < L(E)C50 \le 0.001$

M factor (Acute) 1000

Acute toxicity - fish LC50, ~ 96 hours: 0.0026 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic

invertebrates

EC₅₀, ~ 48 hours: 0.0082 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅o, 96 hours: 0.0012 mg/l, Marinewater algae

Chronic aquatic toxicity

M factor (Chronic) 10

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

ROSIN 21%

Persistence and

degradability

The product is readily biodegradable.

Biodegradation - Degradation 71%: 28 days

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Persistence and

degradability

The degradability of the product is not known.

Biodegradation

- 78%: 28 days

ZINC PYRITHIONE 2.7%

Persistence and

degradability

The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

ROSIN 21%

Partition coefficient log Kow: > 6 Probably

HYDROCARBONS, C9, AROMATICS

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Zinc Oxide

Partition coefficient log Pow: 2.2

ZINC PYRITHIONE 2.7%

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

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

assessment

Ecological information on ingredients.

HYDROCARBONS, C9, AROMATICS

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

assessment

ZINC PYRITHIONE 2.7%

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

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) 3082 (ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S)

UN No. (IMDG) 3082 (ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S)

UN No. (ICAO) 3082 (ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S)

14.2. UN proper shipping name

Proper shipping name Contains 1,2,4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) and Copper (1) Oxide,

(ADR/RID) MARINE POLLUTANTS

Proper shipping name (IMDG) Contains 1,2,4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) and Copper (1) Oxide,

MARINE POLLUTANTS

Proper shipping name (ICAO) 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

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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 Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations This product is approved under the Control of Pesticides Regulations 1986. Product

C/258/Series - H.S.E. No. 7218.

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.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: 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.

MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978.

cATpE: Converted Acute Toxicity Point Estimate.

BCF: Bioconcentration Factor.

EC50: 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 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 Correction to classification

Issued by Technical Dept. (N.O.)

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Revision 11.0

Supersedes date 28/01/2021

SDS number 10489

SDS status Approved.

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Hazard statements in full 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. H360D May damage the unborn child.

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.