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

1.1 Product identifier
Product name: Boatguard 100 Blue
Product code: YBP002

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th>Uses advised against</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer application of coatings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional application of coatings and inks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Other Uses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.3 Details of the supplier of the safety data sheet
International Paint Ltd.
Stoneygate Lane
Felling
Gateshead
Tyne and Wear
NE10 0JY UK
Tel: +44 (0)191 469 6111 Fax: +44 (0)191 438 3711
e-mail address of person responsible for this SDS: sdsfellinguk@akzonobel.com

National contact

1.4 Emergency telephone number

National advisory body/Poison Centre (For use only by licensed medical professionals.)
Telephone number: +44 (0)344 892 0111 (UK) +353 (0)1 809 2566 (Eire)
Supplier
Telephone number: +44 (0)191 469 6111 (24H)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Flam. Liq. 3, H226
Eye Dam. 1, H318
Skin Sens. 1, H317
STOT SE 3, H335
Aquatic Acute 1, H400
Aquatic Chronic 1, H410
The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

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SECTION 2: Hazards identification

Hazard pictograms:

- Flammable liquid and vapour
- Serious eye damage
- May cause an allergic skin reaction
- May cause respiratory irritation
- Very toxic to aquatic life with long lasting effects

Signal word: Danger

Hazard statements:
- Flammable liquid and vapour.
- Causes serious eye damage.
- May cause an allergic skin reaction.
- May cause respiratory irritation.
- Very toxic to aquatic life with long lasting effects.

Precautionary statements

General:
- Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention:
- Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Response:
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Take off contaminated clothing and wash it before reuse. IF IN EYES: Immediately call a POISON CENTER or physician.

Storage:
- Keep cool.

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

Hazardous ingredients:
- dicopper oxide
- Solvent naphtha (petroleum), light arom.
- rosin
- xylene
- Fatty acids, C18-unsatd., trimers, compds. with oleylamine
- Fatty acids, tall-oil, compds. with oleylamine

Supplemental label elements:
- Wear appropriate respirator when ventilation is inadequate.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
- Not applicable.

Biocidal products regulation:
- Authorisation number (UK): HSE No. 10376
- Authorisation number (Malta): MCCAA 2017-05-24-B05
- Authorisation number (Ireland): PCS No. 99038

Warnings for vulnerable groups:
- Children shall be kept away until treated surfaces are dry.

Product Specific Information:
- FIRST AID: Do not breathe dust/fume/gas/mist/vapours/spray. IF SWALLOWED: Do NOT induce vomiting. Get immediate medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Do not use solvents or thinners to clean the skin. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: If not breathing, give artificial respiration. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give nothing by mouth. Get medical attention if you feel unwell. Contaminated work clothing should not be allowed out of the

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## SECTION 2: Hazards identification

Workplace. Keep unnecessary and unprotected personnel from entering. Store in a well-ventilated place. Keep container tightly closed. Do not reuse container. Collect spillage. Application, maintenance and repair activities shall be conducted within a contained area, on an impermeable hard standing with bunding or on soil covered with an impermeable material to prevent losses and minimize emissions to the environment, and that any losses or waste containing a biocide shall be collected for reuse or disposal.

### 2.3 Other hazards

#### Other hazards which do not result in classification

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>% by weight</th>
<th>Classification</th>
<th>Nota(s)</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>dicopper oxide</td>
<td>EC: 215-270-7, CAS: 1317-39-1, Index: 029-002-00-X</td>
<td>≥10 - ≤25</td>
<td>Acute Tox. 4, H302, Acute Tox. 4, H332, Eye Dam. 1, H318, Aquatic Acute 1, H400 (M=100), Aquatic Chronic 1, H410 (M=10)</td>
<td>-</td>
<td>[1]</td>
</tr>
<tr>
<td>rosin</td>
<td>REACH #: 01-2119480418-32, EC: 232-475-7, CAS: 8050-09-7, Index: 650-015-00-7</td>
<td>≥10 - ≤25</td>
<td>Skin Sens. 1, H317, Aquatic Chronic 4, H413</td>
<td>-</td>
<td>[1][2]</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>REACH #: 01-2119463881-32, EC: 215-222-5, CAS: 1314-13-2, Index: 030-013-00-7</td>
<td>≤10</td>
<td>Aquatic Acute 1, H400 (M=10), Aquatic Chronic 1, H410 (M=1)</td>
<td>-</td>
<td>[1]</td>
</tr>
</tbody>
</table>

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

---

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SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation

Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical attention.

Skin contact

Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Seek medical attention if irritation persists. Do NOT use solvents or thinners.

Ingestion

If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact

Causes serious eye damage.

Inhalation

May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact

May cause an allergic skin reaction.

Ingestion

Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact

Adverse symptoms may include the following:
pain
watering
redness

Inhalation

Adverse symptoms may include the following:
respiratory tract irritation
coughing
headache
drowsiness/fatigue
dizziness/vertigo
muscle weakness
unconsciousness

Skin contact

Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

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SECTION 4: First aid measures

Ingestion

: Adverse symptoms may include the following:
  stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:
  carbon dioxide
  carbon monoxide
  nitrogen oxides
  sulfur oxides
  metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

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SECTION 6: Accidental release measures

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

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

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Vapours are heavier than air and may spread along floors. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: Not available.

Industrial sector specific solutions: Not available.
SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

### Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>European Hydrocarbon Solvent Suppliers (CEFIC-HSPA) methodology (Europe). TWA: 100 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>rosin</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). Inhalation sensitizer. STEL: 0.15 mg/m³ 15 minutes. Form: Fume TWA: 0.05 mg/m³ 8 hours. Form: Fume</td>
</tr>
<tr>
<td>xylene</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m³ 8 hours. TWA: 100 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**Recommended monitoring procedures**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**: No DNELs/DMELs available.

**PNECs**: No PNECs available

8.2 Exposure controls

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

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

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166, designed to protect against liquid splashes. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection: Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended: Viton® or Nitrile gloves. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary according to EN529. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid.
Colour: Blue.
Odour: Solvent.
Odour threshold: Not available.
pH: Not applicable.
Melting point/freezing point: Not available.

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SECTION 9: Physical and chemical properties

- Initial boiling point and boiling range: Lowest known value: 140 to 200°C (284 to 392°F) (Solvent naphtha (petroleum), light arom.).

- Flash point: Closed cup: 42°C

- Evaporation rate: Not available.

- Flammability (solid, gas): Not available.

- Upper/lower flammability or explosive limits: Greatest known range: Lower: 1.4% Upper: 7.6% (Solvent naphtha (petroleum), light arom.)

- Vapour pressure: Not available.

- Vapour density: Not available.

- Relative density: 1.5

- Solubility(ies): Insoluble in the following materials: cold water.

- Partition coefficient: n-octanol/water: Not available.

- Auto-ignition temperature: Not available.

- Decomposition temperature: Not available.

- Viscosity: Kinematic (room temperature): 200 mm²/s

- Explosive properties: Not available.

- Oxidising properties: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>dicopper oxide</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>3.34 mg/l</td>
<td>4 hours</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1340 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>rosin</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>8400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>xylene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>5000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4300 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rabbit</td>
<td>4000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>17800 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

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**SECTION 11: Toxicological information**

<table>
<thead>
<tr>
<th>LD50 Oral</th>
<th>Rat</th>
<th>3500 mg/kg</th>
</tr>
</thead>
</table>

**Conclusion/Summary**: Not available.

### Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6536.6 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>16035 mg/kg</td>
</tr>
<tr>
<td>Inhalation (gases)</td>
<td>72886.3 ppm</td>
</tr>
<tr>
<td>Inhalation (vapours)</td>
<td>641.4 mg/l</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>16.29 mg/l</td>
</tr>
</tbody>
</table>

### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light arom. zinc oxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>xylene</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>87 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 5 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rat</td>
<td>-</td>
<td>8 hours 60 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 15 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Not available.

### Sensitisation

**Conclusion/Summary**: Not available.

### Mutagenicity

**Conclusion/Summary**: Not available.

### Carcinogenicity

**Conclusion/Summary**: Not available.

### Reproductive toxicity

**Conclusion/Summary**: Not available.

### Teratogenicity

**Conclusion/Summary**: Not available.

### Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation and Narcotic effects</td>
</tr>
<tr>
<td>xylene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene</td>
<td>Category 2</td>
<td>Not determined</td>
<td>hearing organs</td>
</tr>
</tbody>
</table>
SECTION 11: Toxicological information

Aspiration hazard

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>xylene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on likely routes of exposure

Potential acute health effects

**Eye contact**: Causes serious eye damage.

**Inhalation**: May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**: May cause an allergic skin reaction.

**Ingestion**: Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**: Adverse symptoms may include the following:
- pain
- watering
- redness

**Inhalation**: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- headache
- drowsiness/fatigue
- dizziness/vertigo
- muscle weakness
- unconsciousness

**Skin contact**: Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur

**Ingestion**: Adverse symptoms may include the following:
- stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Short term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Potential chronic health effects**

Not available.

Conclusion/Summary

- **General**: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

- **Carcinogenicity**: No known significant effects or critical hazards.

- **Mutagenicity**: No known significant effects or critical hazards.

- **Teratogenicity**: No known significant effects or critical hazards.

- **Developmental effects**: No known significant effects or critical hazards.

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Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>dicopper oxide</td>
<td>Acute EC50 0.042 mg/l Fresh water</td>
<td>Daphnia - Daphnia similis</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 0.71 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.075 mg/l Fresh water</td>
<td>Fish - Danio rerio</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic IC10 0.009 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>96 hours</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>Acute EC50 6.14 mg/m³</td>
<td>Daphnia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 9.22 mg/m³</td>
<td>Fish - Mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>Acute EC50 0.042 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 0.17 mg/l</td>
<td>Algae - Selenastrum capricornutum</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1.1 mg/l</td>
<td>Fish - Oncorhynchus Mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.017 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td>xylene</td>
<td>Acute LC50 8500 μg/l Marine water</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>48 hours</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>Acute LC50 13400 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 3.6 mg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 18.4 to 25.4 mg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.1 to 5.7 mg/l Marine water</td>
<td>Fish - Menidia menida</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc oxide</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>rosin</td>
<td>1.9 to 7.7</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>zinc oxide</td>
<td>3.12</td>
<td>60960</td>
<td>high</td>
</tr>
<tr>
<td>xylene</td>
<td>3.6</td>
<td>8.1 to 25.9</td>
<td>low</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>-</td>
<td>15</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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Mobility: Not available.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

European waste catalogue (EWC)

<table>
<thead>
<tr>
<th>Code number</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWC 08 01 11*</td>
<td>waste paint and varnish containing organic solvents or other hazardous substances</td>
</tr>
</tbody>
</table>

Packaging

Methods of disposal: Ensure waste is collected and contained. Store separately. Dispose of containers contaminated by the product in accordance with local or national legal provisions. This material and its container must be disposed of as hazardous waste. Dispose of via a licensed waste disposal contractor.

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
<td>UN1263</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2 UN proper shipping name</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAINT</td>
<td>PAINT. Marine pollutant (dicopper oxide, Solvent naphtha (petroleum), light arom.)</td>
<td>PAINT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3 Transport hazard class(es)</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4 Packing group</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

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### SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.5 Environmental hazards</th>
<th>Yes.</th>
<th>Yes.</th>
<th>No.</th>
</tr>
</thead>
</table>

**Additional information**
- The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

**Special provisions**
- 640 (E)

**Tunnel code**
- (D/E)

**IMDG Code Segregation group**
- Not applicable.

### 14.6 Special precautions for user
- Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Not available.

### SECTION 15: Regulatory information

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

**EU Regulation (EC) No. 1907/2006 (REACH)**

- **Annex XIV - List of substances subject to authorisation**
  - **Annex XIV**
    - **Substances of very high concern**
      - None of the components are listed.
  - **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**
    - Not applicable.

**Other EU regulations**

- **Europe inventory**
  - Not determined.

**Special packaging requirements**

- Containers to be fitted with child-resistant fastenings: Not applicable.
- Tactile warning of danger: Not applicable.

**Ozone depleting substances (1005/2009/EU)**
- Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)**
- Not listed.

**Biocidal products regulation**

- **Product type**
  - PT21 Antifouling products Liquid. Paint.
- **Type (Antifouling)**
  - Antifouling Type - Organotin-free ablative

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SECTION 15: Regulatory information

Active substances

Ingredient name

dicopper oxide

Directions for use, frequency of application and dose rate

Theoretical Coverage: Airless Spray 5 m2/l @ 100 micron dft
Theoretical Coverage: Brush, Roller 10 m2/l @ 50 micron dft

Restrictions on use 

: For professional and amateur use.

Application methods:

: Application Method: Airless Spray, Brush, Roller.

Recommended Cleaner.

: Use Thinner No. 3 for cleaning of paint application equipment.

IMO


National regulations

Biocidal products regulation

Product type 

: PT21 Antifouling products Liquid. Paint.

References 


15.2 Chemical safety assessment 

: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3, H226</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3, H335</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Acute 1, H400</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 1, H410</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

: H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

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<table>
<thead>
<tr>
<th>Full text of classifications [CLP/GHS]</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H373 (hearing organs)</td>
<td>May cause damage to organs through prolonged or repeated exposure. (hearing organs)</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H413</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>

| Acute Tox. 4, H302 | ACUTE TOXICITY (oral) - Category 4 |
| Acute Tox. 4, H312 | ACUTE TOXICITY (dermal) - Category 4 |
| Acute Tox. 4, H332 | ACUTE TOXICITY (inhalation) - Category 4 |
| Aquatic Acute 1, H400 | ACUTE AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1, H410 | LONG-TERM AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 2, H411 | LONG-TERM AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 4, H413 | LONG-TERM AQUATIC HAZARD - Category 4 |
| Asp. Tox. 1, H304 | ASPIRATION HAZARD - Category 1 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| Eye Dam. 1, H318 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Flam. Liq. 2, H225 | FLAMMABLE LIQUIDS - Category 2 |
| Flam. Liq. 3, H226 | FLAMMABLE LIQUIDS - Category 3 |
| Skin Irrit. 2, H315 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1, H317 | SKIN SENSITIZATION - Category 1 |
| STOT RE 2, H373 | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 |
| STOT SE 3, H335 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3 |
| STOT SE 3, H336 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |

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**Date of issue/ Date of revision**: 30/08/2018  
**Date of previous issue**: 04/07/2018  
**Version**: 5  

**Notice to reader**

IMPORTANT NOTE: the information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user’s responsibility to verify that this data sheet is current prior to using the product to which it relates.

Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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