

SAFETY DATA SHEET



SeaQuantum Plus III

Section 1. Identification

| | |
|--------------------------------------|---------------------------|
| GHS product identifier | : 甲基丙烯酸硅烷低阻自光滑防污漆 III (P) |
| Product code | : 45364 |
| Other means of identification | : Not available. |
| Product type | : Liquid. |
| Product description | : Paint. |

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

Use in coatings - Professional use

| | |
|---------------------------|--|
| Supplier's details | : 佐敦涂料（张家港）有限公司 江苏省张家港保税区扬子江化学工业园长江路15号 215634 电话: +86 512 58937988 传真: +86 512 58937986 Jotun Coatings (Zhangjiagang) Co. Ltd No.15 Changjiang Road Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu Province 215634 Tel: +86 512 58937988 Fax: +86 512 58937986 Jotun Paints (Malaysia) Sdn Bhd, Lot 7 Persiaran Perusahaan, Section 23 40300 SHAH ALAM, Selangor Darul Ehsan Malaysia Tel: +603 51235500 Fax: +603 51235599 SDSJotun@jotun.com |
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| | |
|---|---|
| Emergency telephone number (with hours of operation) | : Jotun Coatings (Taiwan) Ltd. Co. Tel: +886 2 87705061 |
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Section 2. Hazards identification

| | |
|---|--|
| Classification of the substance or mixture | : FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 AQUATIC TOXICITY (ACUTE) - Category 1 AQUATIC TOXICITY (CHRONIC) - Category 1 |
|---|--|

GHS label elements

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger.

Hazard statements

: H226 - Flammable liquid and vapour.
 H302 + H332 - Harmful if swallowed or if inhaled.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 (nervous system)
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P260 - Do not breathe vapour or spray.
 P270 - Do not eat, drink or smoke when using this product.

Response

: P391 - Collect spillage.
 P314 - Get medical advice/attention if you feel unwell.
 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor.

Storage

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

Disposal

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

Other hazards which do not result in classification : None known.

In compliance : IMO Antifouling System Convention compliant AFS/CONF/26 + IMO MEPC.331(76).

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

| Product name | % (w/w) | CAS number | Type |
|-----------------------------|-----------|------------|---------|
| dicopper oxide | ≥25 - ≤50 | 1317-39-1 | [1] [2] |
| xylene | ≥10 - ≤15 | 1330-20-7 | [1] [2] |
| ethylbenzene | ≤5 | 100-41-4 | [1] [2] |
| zinc oxide | ≤5 | 1314-13-2 | [1] |
| hydrocarbons, C9, aromatics | ≤2.6 | 64742-95-6 | [1] |
| colophony | ≤3 | 8050-09-7 | [1] |
| copper pyrrithione | ≤1.6 | 14915-37-8 | [1] |

Section 3. Composition/information on ingredients

| 物品名稱 | % (w/w) | 化學文摘社登記號碼(CAS No.) | 類型 |
|----------|-----------|--------------------|---------|
| 氧化亚铜 | ≥25 - ≤50 | 1317-39-1 | [1] [2] |
| 二甲苯 | ≥10 - ≤15 | 1330-20-7 | [1] [2] |
| 苯乙烷 | ≤5 | 100-41-4 | [1] [2] |
| 氧化鋅 (燻煙) | ≤5 | 1314-13-2 | [1] |
| 輕質芳香煙石腦油 | ≤2.6 | 64742-95-6 | [1] |
| 松香 | ≤3 | 8050-09-7 | [1] |
| 銅吡硫 | ≤1.6 | 14915-37-8 | [1] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.

Section 4. First aid measures

- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- 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.
- 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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : 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.

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.

Methods and material for containment and cleaning up

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

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

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.

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. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|--|
| dicopper oxide | TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018). [copper fume] STEL: 0.6 mg/m ³ 15 minutes. Form: Fume TWA: 0.2 mg/m ³ 8 hours. Form: Fume |
| xylene | TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018). [xylenes] STEL: 542.5 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |
| ethylbenzene | TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018). STEL: 125 ppm 15 minutes. STEL: 542.5 mg/m ³ 15 minutes. TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. |

Biological exposure indices

No exposure indices known.

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

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Hand protection : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
 The breakthrough time must be greater than the end use time of the product.
 The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
 Gloves should be replaced regularly and if there is any sign of damage to the glove material.
 Always ensure that gloves are free from defects and that they are stored and used correctly.
 The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
 Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
 Wear suitable gloves tested to ISO 374-1:2016.
 Not recommended, gloves(breakthrough time) < 1 hour: neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 mm)
 Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.75 mm), 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

Section 8. Exposure controls/personal protection

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.

- Eye protection** : Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. 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.
- Body protection** : Use chemical-resistant protective suit / disposable overall.
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.
- 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.
- 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.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Colour** : Red
- Odour** : Hydrocarbon.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: 25°C (77°F)
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Greatest known range: Lower: 1.4% Upper: 7.6% (hydrocarbons, C9, aromatics)
- Vapour pressure** :

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|-----------------------------|-------------------------|------|--------|-------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| ethanol | 42.94865 | 5.7 | | | | |
| ethylbenzene | 9.30076 | 1.2 | | | | |
| xylene | 6.7 | 0.89 | | | | |
| hydrocarbons, C9, aromatics | 2.5 | 0.33 | | | | |
| tetraethyl silicate | 0.82 | 0.11 | | | | |
| talca (non-asbestos form) | 0 | 0 | | | | |

Section 9. Physical and chemical properties and safety characteristics

| | | | | | | |
|------------------------|---|---|--|--|--|--|
| colophony | 0 | 0 | | | | |
| propylidynetrimethanol | 0 | 0 | | | | |

Relative vapour density : Not available.

Density : 1.914 to 1.915 g/cm³

Solubility(ies) :

| Media | Result |
|------------|-------------|
| cold water | Not soluble |
| hot water | Not soluble |

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

Auto-ignition temperature :

| Ingredient name | °C | °F | Method |
|-----------------------------|------------|------------|-----------|
| tetraethyl silicate | 222 | 431.6 | |
| hydrocarbons, C9, aromatics | 280 to 470 | 536 to 878 | |
| xylene | 432 | 809.6 | |
| ethylbenzene | 432.22 | 810 | |
| ethanol | 455 | 851 | DIN 51794 |

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Chemical stability : The product is stable.

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

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.

Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|---------------------------------|------------|----------------------|----------|
| dicopper oxide | LC50 Inhalation Dusts and mists | Rat | 3.34 mg/l | 4 hours |
| | LD50 Oral | Rat | 1340 mg/kg | - |
| xylene | LC50 Inhalation Vapour | Rat | 11 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| ethylbenzene | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| | LC50 Inhalation Vapour | Rat - Male | 11 mg/l | 4 hours |
| copper pyrrhione | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| | LC50 Inhalation Dusts and mists | Rat | 70 mg/m ³ | 4 hours |

Section 11. Toxicological information

| | | | | |
|--|-------------|--------|-----------|---|
| | LD50 Dermal | Rabbit | 300 mg/kg | - |
| | LD50 Oral | Rat | 200 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|------------------------------------|------------------------------|-------|------------------------|-------------|
| dicopper oxide | Eyes - Cornea opacity | Rabbit | - | 72 hours | - |
| | Eyes - Redness of the conjunctivae | Rabbit | - | 48 hours | - |
| xylene | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| zinc oxide | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| copper pyrithione | Eyes - Severe irritant | Mammal - species unspecified | - | - | - |
| | Skin - Irritant | Mammal - species unspecified | - | - | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|------------------------------|-------------|
| colophony | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

| Product/ingredient name | Maternal toxicity | Fertility | Developmental toxin | Species | Dose | Exposure |
|-------------------------|-------------------|-----------|---------------------|------------------------------|------------------------------|----------|
| copper pyrithione | - | - | Positive | Mammal - species unspecified | Route of exposure unreported | - |

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-----------------------------|------------|-------------------|------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |
| hydrocarbons, C9, aromatics | Category 3 | - | Respiratory tract irritation |
| copper pyrithione | Category 3 | - | Narcotic effects |
| | Category 3 | | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |
| copper pyrithione | Category 1 | - | nervous system |

Section 11. Toxicological information

Aspiration hazard

| Product/ingredient name | Result |
|-----------------------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| hydrocarbons, C9, aromatics | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

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

- General** : May cause damage to organs through prolonged or repeated exposure. 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.
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| SeaQuantum Plus III | 937.2 | 5383.4 | N/A | 56.3 | 2.7 |
| dicopper oxide | 500 | N/A | N/A | N/A | 3.34 |
| xylene | N/A | 1100 | N/A | 11 | N/A |
| ethylbenzene | N/A | N/A | N/A | 11 | N/A |
| copper pyrithione | 200 | 300 | N/A | N/A | 0.07 |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------|---|--|--|
| dicopper oxide | Acute LC50 0.075 mg/l Fresh water Chronic NOEC 0.001 mg/l | Fish - Danio rerio Algae | 96 hours - |
| xylene | Chronic NOEC 0.0052 mg/l Acute LC50 8500 µg/l Marine water | Algae Crustaceans - Palaemonetes pugio | - 48 hours |
| ethylbenzene | Acute LC50 13400 µg/l Fresh water Acute EC50 7700 µg/l Marine water Acute EC50 2.93 mg/l | Fish - Pimephales promelas Algae - Skeletonema costatum Daphnia | 96 hours 96 hours 48 hours |
| zinc oxide | Acute LC50 4.2 mg/l Acute LC50 1.1 ppm Fresh water Chronic NOEC 0.02 mg/l Fresh water | Fish Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 96 hours 96 hours 72 hours |
| hydrocarbons, C9, aromatics | Acute EC50 <10 mg/l Acute IC50 <10 mg/l Acute LC50 <10 mg/l | Daphnia Algae Fish | 48 hours 72 hours 96 hours |
| copper pyrithione | Acute EC50 0.022 mg/l Acute IC50 0.035 mg/l Acute LC50 0.0043 mg/l Chronic NOEC 0.00046 mg/l | Daphnia Algae Fish Algae - Skeletonema costatum | 48 hours 120 hours 96 hours 120 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| dicopper oxide | - | - | Not readily |
| xylene | - | - | Readily |
| ethylbenzene | - | - | Readily |
| zinc oxide | - | - | Not readily |
| hydrocarbons, C9, aromatics | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------|--------------------|-------------|-----------|
| xylene | 3.12 | 8.1 to 25.9 | low |
| ethylbenzene | 3.6 | - | low |
| zinc oxide | - | 28960 | high |
| hydrocarbons, C9, aromatics | - | 10 to 2500 | high |
| colophony | 1.9 to 7.7 | - | high |

Mobility in soil

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





Section 12. Ecological information

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

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

| | UN | IMDG | IATA |
|-----------------------------------|--|--|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | Paint | Paint. Marine pollutant (dicopper oxide) | Paint |
| Transport hazard class(es) | 3  | 3   | 3  |
| Packing group | III | III | III |
| Environmental hazards | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

Additional information

- ADR/RID** : Tunnel restriction code: (D/E)
Hazard identification number: 30
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-E, S-E
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

TCCSCA List of toxic chemicals

Not applicable.

TCCSCA List of concerned chemicals

Not applicable.

OSHA Enforcement Rules Article 28 : This product contains substances "Specially hazardous to health": xylene, lead.

OSHA Article 29 : Employers shall not employ persons under the age of 18 to perform any potentially dangerous or harmful work involving this product. (OSHA Art. 29 par 3)

OSHA Article 30 : Employers shall not employ female laborers who are still within their first postpartum year to perform potentially dangerous and hazardous work involving this product. (OSHA Art. 30 second part, par 2)

Organic solvent poisoning prevention rule : Type 2

Priority management chemicals, Article 2

CMR chemical substances, category 1 (Article 2.2 (I)) : Applicable

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Procedure used to derive the classification

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 4 | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 4 | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 | Calculation method |
| SKIN SENSITISATION - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 | Calculation method |
| AQUATIC TOXICITY (ACUTE) - Category 1 | Calculation method |
| AQUATIC TOXICITY (CHRONIC) - Category 1 | Calculation method |

References : Not available.

Organisation that prepared the SDS : Jotun AS, Norway
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Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.