

SAFETY DATA SHEET



Jotun Protects Property

SeaQuantum PRO

1. Identification of the preparation and of the company

Product name and/or code : SeaQuantum PRO
Label No. : 19941
Supplier/Manufacturer : Jotun Paints (Europe) Ltd.
 Stather Road
 Flixborough, Scunthorpe
 North Lincolnshire
 DN15 8RR
 England

 Tel: +44 17 24 40 00 00
 Fax: +44 17 24 40 01 00
 SDSJotun@jotun.com

Emergency telephone number : Contact National Poison Centre via Hospital or Registered Medical Practitioner

Product use : Coatings: Antifouling. Solvent-borne.

2. Hazards identification

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Flammable.

Toxic by inhalation. Harmful in contact with skin and if swallowed. May cause sensitisation by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



Toxic



Dangerous for the environment

IMO Antifouling System Convention compliant (AFS/CONF/26)

3. Composition/information on ingredients

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Product/ingredient name	Identifiers	%	Classification		Type	Notes
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]		
dicopper oxide	EC: 215-270-7 CAS: 1317-39-1 Index: 029-002-00-X	25-35	Xn; R22 N; R50/53	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]	-
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	12,5-20	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	[1] [2]	C
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	2,5-25	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]	-
rosin	EC: 232-475-7 CAS: 8050-09-7 Index: 650-015-00-7	1-5	R43	Skin Sens. 1, H317	[1]	-
zineb	EC: 235-180-1 CAS: 12122-67-7 Index: 006-078-00-2	2,5-5	Xi; R37 R43 N; R50/53	Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1,	[1]	-

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ethylbenzene	EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	3-7	F; R11 Xn; R20	H410 Flam. Liq. 2, H225 Acute Tox. 4, H332	[1] [2]	-
bis(1-hydroxy-1h-pyridine-2-thionato-o,s)copper	EC: 238-984-0 CAS: 14915-37-8	1-5	T+; R26 Xn; R22 Xi; R41, R38 N; R50	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400	[1] [2]	-
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	<15	R10 R67	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]	-
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 64742-95-6 Index: 649-356-00-4	1-2,5	R10 Xn; R20, R65 Xi; R37 R66 N; R51/53 See Section 16 for the full text of the R-phrases declared above.	Flam. Liq. 3, H226 Acute Tox. 4, H332 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above.	[1] [2]	H-P

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.**4. First-aid measures**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.
- 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.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- 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.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

5. Fire-fighting measures

- Extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Extinguishing media not to be used** : Do not use water jet.
- Recommendations** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. Accidental release measures

- Personal precautions** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- Spill** : 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). Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.
- Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

- Storage** : Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure controls/personal protection

- Engineering measures** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Ingredient name	Occupational exposure limits
xylene	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. STEL: 441 mg/m ³ 15 minute(s). STEL: 100 ppm 15 minute(s). TWA: 220 mg/m ³ 8 hour(s). TWA: 50 ppm 8 hour(s).
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. STEL: 552 mg/m ³ 15 minute(s). STEL: 125 ppm 15 minute(s). TWA: 100 ppm 8 hour(s).

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bis(1-hydroxy-1h-pyridine-2-thionato-
o,s)copper

1-methoxy-2-propanol

Solvent naphtha (petroleum), light
arom.

TWA: 441 mg/m³ 8 hour(s).

Arch Chemicals (Europe, 2002).

TWA: 0,35 mg/m³ 8 hour(s).

**EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed
through skin.**

STEL: 560 mg/m³ 15 minute(s).

STEL: 150 ppm 15 minute(s).

TWA: 375 mg/m³ 8 hour(s).

TWA: 100 ppm 8 hour(s).

EH40-WEL (United Kingdom (UK), 1/2005).

TWA: 125 mg/m³ 8 hour(s). Form: All forms

TWA: 25 ppm 8 hour(s). Form: All forms

Personal protective equipment

Respiratory system : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use respiratory mask with charcoal and dust filter when spraying this product.(as filter combination A2-P3). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

Skin and body : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Hands : For prolonged or repeated handling, use the following type of gloves: gloves: polyvinyl alcohol or nitrile.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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

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.

Eyes : Use safety eyewear designed to protect against splash of liquids.

9. Physical and chemical properties

- Physical state** : Liquid.
- Odour** : Characteristic.
- Colour** : Various
- Flash point** : Closed cup: 27°C (80,6°F)
- Density** : 1.734 g/cm³
- Explosion limits** : 1.1 - 13.1%
- Solubility** : Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

11. Toxicological information

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 2 and 15 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

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If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains rosin, zineb. May produce an allergic reaction.

12. Ecological information

There are no data available on the preparation itself.

Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 3 and 15 for details.

Aquatic ecotoxicity

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
dicopper oxide	Mortality	Acute EC50 0,042 mg/L Fresh water	Daphnia - Water flea - Daphnia similis - 6 to 24 hours	48 hours
	Mortality	Acute LC50 0,075 mg/L Fresh water	Fish - Zebra danio - Danio rerio	96 hours
zinc oxide	Intoxication	Acute EC50 >1000 ppm Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	Mortality	Acute LC50 1,1 to 2,5 ppm Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	96 hours
zineb	-	Acute LC50 0,225 mg/L	Fish - Trout	96 hours
	Mortality	Acute LC50 970 to 1800 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
ethylbenzene	Population	Acute EC50 7,2 mg/L	Algae	48 hours
	Intoxication	Acute EC50 2,93 mg/L	Daphnia	48 hours
	Mortality	Acute LC50 4,2 mg/L	Fish	96 hours
bis(1-hydroxy-1h-pyridine-2-thionato- o,s)copper	-	Acute EC50 0,022 mg/L	Daphnia	48 hours
	-	Acute IC50 0,035 mg/L	Algae	120 hours
Solvent naphtha (petroleum), light arom.	-	Acute LC50 0,0043 mg/L	Fish	96 hours
	-	Acute EC50 <10 mg/L	Daphnia	48 hours
	-	Acute IC50 <10 mg/L	Algae	72 hours
	-	Acute LC50 <10 mg/L	Fish	96 hours

Ecological information

Biodegradability

<u>Product/ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>
dicopper oxide	-	-	Not readily
xylene	-	-	Readily
zinc oxide	-	-	Not readily
Solvent naphtha (petroleum), light arom.	-	-	Not readily

Bioaccumulative potential

<u>Product/ingredient name</u>	<u>LogK_{ow}</u>	<u>BCF</u>	<u>Potential</u>
xylene	3,12	-	high

13. Disposal considerations

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

European waste catalogue (EWC) : 08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

14. Transport information

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.

International transport regulations

Proper shipping name : Copper based pesticide, liquid, toxic, flammable (bis(1-hydroxy-1h-pyridine-2-thionato-o,s)copper, xylene)

Marine pollutant substances : dicopper oxide, zinc oxide

UN Number : 3009

Class : 6.1

Sub-risk : 3

Packing group : III

Label :



Marking : The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

Additional information

ADR / RID : Tunnel restriction code: (D/E)
Hazard identification number: 63

IMDG : Emergency schedules (EmS): F-E, S-D
Marine pollutant: Yes.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

15. Regulatory information

EU regulations : The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

Hazard symbol or symbols :



Toxic



Dangerous for the environment

Risk phrases : R10- Flammable.
R23- Toxic by inhalation.
R21/22- Harmful in contact with skin and if swallowed.
R43- May cause sensitisation by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S23- Do not breathe vapour / spray.
S36/37- Wear suitable protective clothing and gloves.
S38- In case of insufficient ventilation, wear suitable respiratory equipment.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Contains : dicopper oxide
xylene
rosin
zineb
bis(1-hydroxy-1h-pyridine-2-thionato-o,s)copper

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. Other information

CEPE Classification : 1

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.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Full text of abbreviated R phrases : R11- Highly flammable.
R10- Flammable.
R26- Very toxic by inhalation.
R23- Toxic by inhalation.
R20- Harmful by inhalation.
R22- Harmful if swallowed.
R20/21- Harmful by inhalation and in contact with skin.
R21/22- Harmful in contact with skin and if swallowed.
R65- Harmful: may cause lung damage if swallowed.
R41- Risk of serious damage to eyes.
R37- Irritating to respiratory system.
R38- Irritating to skin.
R43- May cause sensitisation by skin contact.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapours may cause drowsiness and dizziness.
R50- Very toxic to aquatic organisms.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006.

Date of issue : 29.02.2012.

Version : 1.01

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.