

SAFETY DATA SHEET



Ravilakk

1. Identification of the preparation and of the company

Product name and/or code : Ravilakk
Supplier/Manufacturer : Jotun Paints (Europe) Ltd.
 Stather Road
 Flixborough, Scunthorpe
 North Lincolnshire
 DN15 8RR
 England

Tel: +44 17 24 40 00 00
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 SDSJotun@jotun.no

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

Product use : Coatings: Ravilakk is a glossy varnish, made from Chinese wood oil, synthetic amber and other high-grade raw materials. Ravilakk has good water and wear resistance, and dries quickly. The product gives the wood a slightly yellowish, golden tone. Ravilakk can be used on all wooden surfaces above the waterline, as well inboard as outboard. New wood should be primed with Clipper I prior to treatment with Ravilakk.

2. Hazards identification

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

Flammable.

Vapours may cause drowsiness and dizziness.

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



Dangerous for the environment

Additional warning phrases : Contains: 2-butanone oxime, hexanoic acid, 2-ethyl-, cobalt salt. May produce an allergic reaction.

3. Composition/information on ingredients

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

Chemical name*	Notes	CAS number	EC number	% by weight	Classification
Naphtha (petroleum), hydrodesulfurized heavy Contains <0,1% Benzen	H-P-4	64742-82-1	265-185-4	25 - 50	R10 Xn; R65 R66, R67 N; R51/53
1-methoxy-2-propanol	-	107-98-2	203-539-1	1 - 2.5	R10
2-butanone oxime	-	96-29-7	202-496-6	0 - 1	Carc. Cat. 3; R40 Xn; R21 Xi; R41 R43
hexanoic acid, 2-ethyl-, cobalt salt	-	13586-82-8	237-015-9	0 - 1	Xi; R38 R43 N; R51/53
See section 16 for the full text of the R-phrases declared above					

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.
- 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. 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).
- Spill** : 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** : Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. 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 container tightly closed. 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.

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. 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. Keep away from: oxidising agents, strong alkalis, strong acids. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

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.

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Naphtha (petroleum), hydrodesulfurized heavy Contains<0,1% Benzen	EH40-WEL (United Kingdom (UK), 1/2005). STEL: 850 mg/m ³ 15 minute(s). Form: All forms STEL: 150 ppm 15 minute(s). Form: All forms TWA: 566 mg/m ³ 8 hour(s). Form: All forms TWA: 100 ppm 8 hour(s). Form: All forms
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. STEL: 560 mg/m ³ 15 minute(s). STEL: 150 ppm 15 minute(s). TWA: 375 mg/m ³ 8 hour(s). TWA: 100 ppm 8 hour(s).
hexanoic acid, 2-ethyl-, cobalt salt	EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin sensitiser. Notes: as Co TWA: 0,1 mg/m ³ , (as Co) 8 hour(s).

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-P2). 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: neoprene 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 : Clear.

Flash point : Closed cup: 35°C (95°F)

Viscosity : > 7x10⁻⁶ m²/s (ISO 3219, 40 °C)

Density : 0.9 g/cm³

Explosion limits : 1.5 - 13.7%

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 is 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. 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. If splashed in the eyes, the liquid may cause irritation and reversible damage.

Contains: 2-butanone oxime, hexanoic acid, 2-ethyl-, cobalt salt. May produce an allergic reaction.

12. Ecological information

There is 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 2 and 15 for details.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Naphtha (petroleum), hydrodesulfurized heavy Contains<0,1% Benzen	-	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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Naphtha (petroleum), hydrodesulfurized heavy Contains<0,1% Benzen	-	-	Not readily

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	: Paint.
UN number	: 1263
Class	: 3
Packing group	: III

Ravilakk

Label :



Additional information

ADR / RID : Tunnel restriction code: (E)
Hazard identification number: 30
Special provisions: 640E

IMDG : Emergency schedules (EmS): F-E, S-E
Marine pollutant: No.

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 :



Dangerous for the environment

Risk phrases : R10- Flammable.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S2- Keep out of the reach of children.
S23- Do not breathe vapour / spray.
S29- Do not empty into drains.
S46- If swallowed, seek medical advice immediately and show this container or label.
S51- Use only in well-ventilated areas.

Additional warning phrases : Contains: 2-butanone oxime, hexanoic acid, 2-ethyl-, cobalt salt. May produce an allergic reaction.

16. Other information

CEPE Classification : 1

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R10- Flammable.
R40- Limited evidence of a carcinogenic effect.
R21- Harmful in contact with skin.
R65- Harmful: may cause lung damage if swallowed.
R41- Risk of serious damage to eyes.
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.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Date of issue : 27.01.2009.

Version : 1

Indicates information that has changed from previously issued version.

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.