## Mare Nostrum SP

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

#### 1.1 Product identifier

**Product name** : Mare Nostrum SP

: 8080 **Product code Product description** : Paint. **Product type** : Liquid. Other means of : Not available.

identification

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

Use in coatings - Consumer use: Apply this product only as specified on the label.

Use in coatings - Professional use

## 1.3 Details of the supplier of the safety data sheet

Jotun Paints (Europe) Ltd. Stather Road Flixborough, Scunthorpe North Lincolnshire **DN158RR England** 

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

#### 1.4 Emergency telephone number

Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

## **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 Eve Dam. 1, H318 Skin Sens. 1, H317 **STOT SE 3, H335 STOT SE 3, H336** Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

**Hazard pictograms** 









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## **SECTION 2: Hazards identification**

Signal word

: Danger.

**Hazard statements** 

: H226 - Flammable liquid and vapour.

H318 - Causes serious eye damage. H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness.

H410 - Very toxic to aquatic life with long lasting effects.

**Precautionary statements** 

General

: P102 - Keep out of reach of children.

**Prevention** 

: P261 - Avoid breathing vapour.

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.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

Response

: P391 - Collect spillage.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P333 + P313 - If skin irritation or rash occurs: Get medical 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 physician.

**Storage** 

: P403 - Store in a well-ventilated place.

P235 - Keep cool.

**Disposal** 

P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

**Hazardous ingredients** 

dicopper oxide

hydrocarbons, C9, aromatics, (<0.1% Benzene)

colophony xylene

2-methoxy-1-methylethyl acetate

Supplemental label

elements

: Not applicable.

**Additional information** 

: Antifouling. Active substances: dicopper oxide (CAS 1317-39-1) 19.1 % w/w. Do not

reuse empty containers.

**Additional information** 

**Annex XVII - Restrictions** on the manufacture, placing on the market and use of certain dangerous

: HSE No. 9110. : Not applicable.

substances, mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger: Not applicable.

2.3 Other hazards

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

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## **SECTION 3: Composition/information on ingredients**

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	Weight %	Regulation (EC) No. 1272/2008 [CLP]	Туре
dicopper oxide	REACH #: 01-2119513794-36 EC: 215-270-7 CAS: 1317-39-1 Index: 029-002-00-X	≥10 - ≤23	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥10 - ≤25	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
hydrocarbons, C9, aromatics, (<0. 1% Benzene)	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]
colophony	REACH #: 01-2119480418-32 EC: 232-475-7 CAS: 8050-09-7 Index: 650-015-00-7	≤10	Skin Sens. 1, H317	[1] [2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	<10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≤5	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤3	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
			See Section 16 for the full text of the H statements declared above.	

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, vPvBs or Substances of equivalent concern, 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
- [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
- [5] Substance of equivalent concern

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General

## **SECTION 3: Composition/information on ingredients**

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

## **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

i. I Description of first aid measures

: 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.

**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.

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 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 mixture 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.

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 colophony. May produce an allergic reaction.

## 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

See toxicological information (Section 11)

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media

**Suitable extinguishing** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.

media

Unsuitable extinguishing

media

: Do not use water jet.

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## **SECTION 5: Firefighting measures**

## 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous combustion** products

: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

#### 5.3 Advice for firefighters

Special protective actions for fire-fighters

: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

## **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

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

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

: 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.

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

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.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

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 mixture. 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.

Do not allow to enter drains or watercourses.

## Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

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## **SECTION 7: Handling and storage**

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.

## 7.2 Conditions for safe storage, including any incompatibilities

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.

## 7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

## **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

Product/ingredient name	Exposure limit values
hydrocarbons, C9, aromatics, (<0.1% Benzene)	EH40-WEL (United Kingdom (UK), 12/2011). Absorbed through
	skin.
	TWA: 200 mg/m³ 8 hours. Form: All forms
	TWA: 40 ppm 8 hours. Form: All forms
colophony	EH40/2005 WELs (United Kingdom (UK), 8/2018). Inhalation
	sensitiser.
	STEL: 0.15 mg/m³ 15 minutes. Form: Fume
	TWA: 0.05 mg/m³ 8 hours. Form: Fume
xylene	EH40/2005 WELs (United Kingdom (UK), 8/2018). 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.
2-methoxy-1-methylethyl acetate	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed
	through skin.
	STEL: 548 mg/m³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 274 mg/m³ 8 hours.
	TWA: 50 ppm 8 hours.
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed
	through skin.
	STEL: 552 mg/m³ 15 minutes.
	STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.
	TWA: 100 ppin 6 hours. TWA: 441 mg/m³ 8 hours.
1 mathawy 2 prananal	
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin.
	STEL: 560 mg/m³ 15 minutes.
	STEL: 360 flight 15 minutes.
	TWA: 375 mg/m³ 8 hours.
	TVVA. 0/3 mg/m o mours.

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## **SECTION 8: Exposure controls/personal protection**

TWA: 100 ppm 8 hours.

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**

Product/ingredient name	Exposure	Value	Population	Effects
zinc oxide	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	5 mg/m³	Workers	Systemic
	Long term Dermal	83 mg/kg bw/day	Consumers	Systemic
	Long term Inhalation	2.5 mg/m <sup>3</sup>	Consumers	Systemic
	Long term Oral	0.83 mg/ kg bw/day	Consumers	Systemic
hydrocarbons, C9, aromatics, (<0.1% Benzene)	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	150 mg/m³	Workers	Systemic
	Long term Dermal	11 mg/kg bw/day	Consumers	Systemic
	Long term Inhalation	32 mg/m³	Consumers	Systemic
	Long term Oral	11 mg/kg bw/day	Consumers	Systemic
colophony	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	176 mg/m³	Workers	Systemic
	Long term Dermal	15 mg/kg bw/day	Consumers	Systemic
	Long term Inhalation	52 mg/m³	Consumers	Systemic
	Long term Oral	15 mg/kg bw/day	Consumers	Systemic
xylene	Short term Inhalation	289 mg/m³	Workers	Systemic
	Short term Inhalation	289 mg/m³	Workers	Local
	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	77 mg/m³	Workers	Systemic
	Long term Dermal	108 mg/kg bw/day	Consumers	Systemic
	Long term Inhalation	14.8 mg/m³	Consumers	Systemic
	Long term Oral	1.6 mg/kg bw/day	Consumers	Systemic
2-methoxy-1-methylethyl acetate	Long term Dermal	153.5 mg/	Workers	Systemic

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## **SECTION 8: Exposure controls/personal protection**

		kg bw/day		
	Long term	275 mg/m <sup>3</sup>	Workers	Systemic
	Inhalation			
	Long term Dermal	54.8 mg/	Consumers	Systemic
		kg bw/day		
	Long term	33 mg/m³	Consumers	Systemic
	Inhalation			
	Long term Oral	1.67 mg/	Consumers	Systemic
ather the arrange	Ole and tarme	kg bw/day	<b>14</b> /	11
ethylbenzene	Short term	293 mg/m <sup>3</sup>	Workers	Local
	Inhalation	100	\\/ankana	Cuatamia
	Long term Dermal	180 mg/kg	Workers	Systemic
	Long term	bw/day 77 mg/m³	Workers	Systemic
	Inhalation	77 mg/m	WOIKEIS	Systemic
	Long term	15 mg/m³	Consumers	Systemic
	Inhalation	13 mg/m	Consumers	Oysternic
	Long term Oral	1.6 mg/kg	Consumers	Systemic
		bw/day		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1-methoxy-2-propanol	Short term	553.5 mg/	Workers	Local
	Inhalation	m³		
	Long term Dermal	50.6 mg/	Workers	Systemic
		kg bw/day		
	Long term	369 mg/m <sup>3</sup>	Workers	Systemic
	Inhalation			
	Long term Dermal	18.1 mg/	Consumers	Systemic
		kg bw/day		
	Long term	43.9 mg/m <sup>3</sup>	Consumers	Systemic
	Inhalation			
	Long term Oral	3.3 mg/kg	Consumers	Systemic
		bw/day		

## **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
licopper oxide	Fresh water	7.8 µg/l	-
••	Marine	5.2 μg/l	-
	Sewage Treatment	230 µg/l	-
	Plant		
	Fresh water sediment	87 mg/kg dwt	-
	Marine water sediment	676 mg/kg dwt	_
	Soil	65 mg/kg dwt	_
inc oxide	Fresh water	20.6 μg/l	_
	Marine	6.1 µg/l	-
	Sewage Treatment	52 μg/l	-
	Plant	3- P.3·	
	Fresh water sediment	117.8 mg/kg dwt	_
	Marine water sediment	56.5 mg/kg dwt	_
	Soil	35.6 mg/kg dwt	_
colophony	Fresh water	0.0054 mg/l	_
	Marine	0.00054 mg/l	_
	Sewage Treatment	1000 mg/l	_
	Plant	1.000g	
	Fresh water sediment	0.02 mg/kg dwt	_
	Marine water sediment	0.002 mg/kg dwt	_
	Soil	0.0015 mg/kg dwt	_
rylene	Fresh water	0.327 mg/l	_
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Marine	0.327 mg/l	_
	Sewage Treatment	6.58 mg/l	_
	Plant	0.00 1119/1	
	Fresh water sediment	12.46 mg/kg dwt	_
	Marine water sediment	12.46 mg/kg dwt	_
	Soil	2.31 mg/kg dwt	_
		ormg/kg awt	
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## **SECTION 8: Exposure controls/personal protection**

2-methoxy-1-methylethyl acetate	Fresh water	0.635 mg/l	-
	Marine	0.0635 mg/l	-
	Sewage Treatment	100 mg/l	-
	Plant		
	Fresh water sediment	3.29 mg/kg dwt	-
	Marine water sediment	0.329 mg/kg dwt	-
	Soil	0.29 mg/kg dwt	-
ethylbenzene	Fresh water	0.1 mg/l	-
	Marine	0.01 mg/l	-
	Sewage Treatment	9.6 mg/l	-
	Plant		
	Fresh water sediment	13.7 mg/kg dwt	-
	Soil	2.68 mg/kg dwt	-
	Secondary Poisoning	20 mg/kg	-
1-methoxy-2-propanol	Fresh water	10 mg/l	-
	Marine	1 mg/l	-
	Sewage Treatment	100 mg/l	-
	Plant		
	Fresh water sediment	52.3 mg/kg dwt	-
	Marine water sediment	5.2 mg/kg dwt	-
	Soil	5.49 mg/kg dwt	-

## 8.2 Exposure controls

## Appropriate engineering controls

: 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.

## **Individual protection measures**

**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 Skin protection Gloves

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

: 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 EN374.

May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, PVC, neoprene Recommended, gloves(breakthrough time) > 8 hours: Teflon, 4H, Viton®, nitrile rubber, polyvinyl alcohol (PVA)

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.

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## **SECTION 8: Exposure controls/personal protection**

**Body protection** 

: Personnel should wear antistatic clothing made of natural fibres or of hightemperature-resistant synthetic fibres.

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** 

If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(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.

**Environmental exposure** 

: Do not allow to enter drains or watercourses.

controls

## **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

**Appearance** 

**Physical state** : Liquid.

: Various colours. Colour Odour Characteristic. **Odour threshold** : Not applicable. pH : Not applicable. Melting point/freezing point : Not applicable.

Initial boiling point and

boiling range

: Lowest known value: 120.17°C (248.3°F) (1-methoxy-2-propanol). Weighted

average: 156.76°C (314.2°F)

Flash point : Closed cup: 28°C

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.63compared **Evaporation rate** 

with butyl acetate

Flammability (solid, gas) Upper/lower flammability or

explosive limits

: Not applicable. : 0.8 - 13.74%

Vapour pressure

: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted

average: 0.8 kPa (6 mm Hg) (at 20°C)

: Highest known value: 4.6 (Air = 1) (2-methoxy-1-methylethyl acetate). Vapour density

Weighted average: 3.91 (Air = 1)

: 1.59 to 1.648 g/cm<sup>3</sup> **Density** 

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

Partition coefficient: n-octanol/: Not available.

water

**Auto-ignition temperature** : Lowest known value: 270°C (518°F) (1-methoxy-2-propanol).

**Decomposition temperature** : Not available.

**Viscosity** Kinematic ( $40^{\circ}$ C): >0.205 cm<sup>2</sup>/s (>20.5 mm<sup>2</sup>/s)

**Explosive properties** : Not available. **Oxidising properties** : Not available.

#### 9.2 Other information

No additional information.

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## SECTION 10: Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

10.3 Possibility of

hazardous reactions

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

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

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

10.4 Conditions to avoid

: When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials

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

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 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 mixture 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.

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 colophony. May produce an allergic reaction.

## **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
dicopper oxide	LC50 Inhalation Dusts and	Rat	3.34 mg/l	4 hours
	mists			
	LD50 Oral	Rat	470 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
•	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
2-methoxy-1-methylethyl	LD50 Dermal	Rabbit	>5 g/kg	-
acetate				
	LD50 Oral	Rat	8532 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
•	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	_
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-

**Conclusion/Summary** 

: Not available.

#### **Acute toxicity estimates**

Route	ATE value
Oral	2456.4 mg/kg
Dermal	20395.7 mg/kg
Inhalation (vapours)	153 mg/l
Inhalation (dusts and mists)	17.46 mg/l

## **Irritation/Corrosion**

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## **SECTION 11: Toxicological information**

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Skin - Mild irritant	Rabbit	-	mg 24 hours 500	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	mg 24 hours 500	-
	Skin - Mild irritant	Rabbit	-	mg 500 mg	-

**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)

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, C9, aromatics, (<0.1% Benzene)	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
xylene	Category 3	Not applicable.	Respiratory tract irritation
2-methoxy-1-methylethyl acetate 1-methoxy-2-propanol	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Narcotic effects

## Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs

## **Aspiration hazard**

Product/ingredient name	Result
hydrocarbons, C9, aromatics, (<0.1% Benzene) xylene ethylbenzene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Other information : Not available.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

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## **SECTION 12: Ecological information**

Product/ingredient name	Result	Species	Exposure
dicopper oxide zinc oxide hydrocarbons, C9, aromatics, (<0.1% Benzene)	Acute LC50 0.075 mg/l Fresh water Acute LC50 1.1 ppm Fresh water Acute EC50 <10 mg/l	Fish - Danio rerio Fish - Oncorhynchus mykiss Daphnia	96 hours 96 hours 48 hours
ethylbenzene	Acute IC50 <10 mg/l Acute LC50 <10 mg/l Acute EC50 7.2 mg/l Acute EC50 2.93 mg/l Acute LC50 4.2 mg/l	Algae Fish Algae Daphnia Fish	72 hours 96 hours 48 hours 48 hours 96 hours

**Conclusion/Summary** 

: Water polluting material. May be harmful to the environment if released in large quantities. This material is very toxic to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

**Conclusion/Summary**: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
dicopper oxide zinc oxide hydrocarbons, C9, aromatics, (<0.1% Benzene) xylene ethylbenzene	- - - -		Not readily Not readily Not readily Readily Readily

## 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
zinc oxide	-	60960	high
hydrocarbons, C9,	-	10 to 2500	high
aromatics, (<0.1% Benzene)			
colophony	1.9 to 7.7	-	high
xylene	3.12	8.1 to 25.9	low
2-methoxy-1-methylethyl	1.2	-	low
acetate			
ethylbenzene	3.6	-	low
1-methoxy-2-propanol	<1	-	low

## **12.4 Mobility in soil**

Soil/water partition : Not available. coefficient (Koc)

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.

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## **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.

**Disposal considerations** 

: Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)

: 08 01 11\* Waste paint and varnish containing organic solvents or other dangerous substances

**Packaging** 

**Methods of disposal** 

- : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- **Disposal considerations**
- : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

Empty containers must be scrapped or reconditioned.

Dispose of containers contaminated by the product in accordance with

Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Type of packaging		European waste catalogue (EWC)	
CEPE Paint Guidelines	15 01 10*	packaging containing residues of or contaminated by hazardous substances	

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**

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	1263	1263	1263	1263
14.2 UN proper shipping name	Paint	Paint	Paint. Marine pollutant (dicopper oxide)	Paint
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III

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## **SECTION 14: Transport information**

14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	Tunnel restriction code: (D/E) Hazard identification number: 30	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.  Emergency schedules (EmS) F-E, S-E	The environmentally hazardous substance mark may appear if required by other transportation regulations.

user

14.6 Special precautions for : 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 applicable.

## **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** 

None of the components are listed.

**Substances of very high concern** 

None of the components are listed.

: Not applicable. Annex XVII - Restrictions

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**Other EU regulations** 

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the

product label and/or technical data sheet for further information.

**VOC for Ready-for-Use** 

**Mixture** 

: Not applicable.

**Europe inventory** : At least one component is not listed.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

**Seveso Directive** 

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

**International regulations** 

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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## **SECTION 15: Regulatory information**

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)** 

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

15.2 Chemical safety

: Not applicable.

assessment

## **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

**Abbreviations and** 

: ATE = Acute Toxicity Estimate

acronyms

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]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

#### 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.
H373	May cause damage to organs through prolonged or repeated
	exposure.
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 classifications [CLP/GHS]

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## **SECTION 16: Other information**

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 LONG-TERM AQUATIC HAZARD - Category 1 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1 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 SENSITISATION - Category 1 **STOT RE 2, H373** SPECIFIC TARGET ORGAN TOXICITY - REPEATED **EXPOSURE - Category 2** SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE **STOT SE 3, H335** (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE **STOT SE 3, H336** (Narcotic effects) - Category 3

Date of printing : 04.04.2019

Date of issue/ Date of : 04.04.2019

revision

Date of previous issue : 13.02.2019

Version : 2.01

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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.

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