

**Safety data sheet**

(EC) 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2021/848

Date of revision: 09.05.2022  
Date of previous issue: 16.12.2019  
Version number 7 (replaces version 6)

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

- **1.1 Product identifier**
- **Trade name:** Epocoat 210, Penguard Topcoat NM Comp. A
- **UFI:** F5U5-D0VF-C00M-KNUE
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Coating
- **Application of the substance / the mixture**  
2-comp. epoxy paint, Comp. A  
Uses in Coatings - Industrial use  
Uses in Coatings - Professional use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Nor-Maali Oy  
Vanhatie 20, 15240 Lahti, FINLAND
- **Further information obtainable from:** MSDS (Nor-Maali Oy) tel.+358 3 874 650, sds@nor-maali.fi
- **1.4 Emergency telephone number:** Contact National Poison Center

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**  
Product definition: mixture
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS02



GHS05



GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Epoxy resin (MW 700-1100)  
2-methylpropan-1-ol  
Phenol, methylstyrenated  
maleic anhydride  
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine  
Fatty acids, C14-18 and C16-18-unsatd., maleated

**Trade name: Epocoat 210, Penguard Topcoat NM Comp. A**

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- **Hazard statements**  
 H226 Flammable liquid and vapour.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H317 May cause an allergic skin reaction.
- **Precautionary statements**  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.  
 P403+P235 Store in a well-ventilated place. Keep cool.
- **Additional information:**  
 EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

· <b>Determination of endocrine-disrupting properties</b>	
68512-30-1	Phenol, methylstyrenated
	List II

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

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· <b>Dangerous components:</b>		
CAS: 25036-25-3 EC number: 607-500-3	Epoxy resin (MW 700-1100) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	10 - 50%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-	xylene Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	10 - 25%
CAS: 68512-30-1 EINECS: 270-966-8 Reg.nr.: 01-2119555274-38-	Phenol, methylstyrenated Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	2.5 - 10%
CAS: 78-83-1 EINECS: 201-148-0 Reg.nr.: 01-2119484609-23-	2-methylpropan-1-ol Flam. Liq. 3, H226; Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335-H336	2.5 - 10%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35-	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	2.5 - 10%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35-	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	2.5 - 10%
CAS: 100545-48-0 EC number: 309-629-8 Reg.nr.: 01-2119979085-27-	Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine Skin Sens. 1, H317	< 0.4%
CAS: 85711-46-2 EINECS: 288-306-2 Reg.nr.: 01-2119976378-19-	Fatty acids, C14-18 and C16-18-unsatd., maleated Skin Irrit. 2, H315; Skin Sens. 1, H317	< 0.3%
CAS: 108-31-6 EINECS: 203-571-6 Reg.nr.: 01-2119472428-31	maleic anhydride Resp. Sens. 1, H334; STOT RE 1, H372; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	< 0.00215%

- **Additional information:**  
 Contains: > 1 % TiO<sub>2</sub> (<10 µm)

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For the wording of the listed hazard phrases refer to section 16.

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**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information:**  
 Never give anything by mouth or induce vomiting to an unconscious person or a person who has convulsions.
- **After inhalation:**  
 Remove person exposed to excessive solvent concentrations to fresh air, keep patient warm and at rest. If breathing is irregular, call national emergency number, if needed start giving artificial respiration and seek medical advice.
- **After 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.
- **After eye contact:**  
 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.
- **After swallowing:**  
 If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
- **Information for doctor:** Treatment according to symptoms.
- **4.2 Most important symptoms and effects, both acute and delayed**  
 No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
 No further relevant information available.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Alcohol resistant foam, CO<sub>2</sub>, powders, water spray.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**  
 Evacuate people from danger area and deny access to area. Remove containers from danger area and try to cool containers which cannot be removed safely.
- **Protective equipment:** Compressed air respirator and protective clothing.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
 No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- **6.2 Environmental precautions:**  
 Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- **6.3 Methods and material for containment and cleaning up:**  
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.
- **6.4 Reference to other sections**  
 See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe 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

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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.

**Information about fire - and explosion protection:**

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

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:**

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.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

**7.3 Specific end use(s)** No further relevant information available.

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

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

**1330-20-7 xylene**

HTP	Short-term value: 440 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
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**78-83-1 2-methylpropan-1-ol**

HTP	Short-term value: 230 mg/m <sup>3</sup> , 75 ppm Long-term value: 150 mg/m <sup>3</sup> , 50 ppm Sk
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**100-41-4 ethylbenzene**

HTP	Short-term value: 880 mg/m <sup>3</sup> , 200 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
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**107-98-2 1-methoxy-2-propanol**

HTP (Great Britain)	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 370 mg/m <sup>3</sup> , 100 ppm Sk
HTP (Finland)	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 370 mg/m <sup>3</sup> , 100 ppm iho

**108-31-6 maleic anhydride**

HTP	Long-term value: 0.41 mg/m <sup>3</sup> , 0.1 ppm Ceiling limit : 0.81 mg/m <sup>3</sup> , 0.2 ppm
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**DNELs**

**1330-20-7 xylene**

Dermal	DNEL 180 mg/kg bw/day (Workers - Long-term systemic effects)
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Inhalative	DNEL	211 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>68512-30-1 Phenol, methylstyrenated</b>		
Dermal	DNEL	3.5 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	1.41 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>78-83-1 2-methylpropan-1-ol</b>		
Inhalative	DNEL	310 mg/m <sup>3</sup> (Workers - Long-term local effects)
<b>100-41-4 ethylbenzene</b>		
Dermal	DNEL	180 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	77 mg/m <sup>3</sup> (Workers - Long-term systemic effects) 442 mg/m <sup>3</sup> (Workers - Long-term local effects)
<b>107-98-2 1-methoxy-2-propanol</b>		
Dermal	DNEL	183 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	369 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</b>		
Inhalative	DNEL	0.308 mg/m <sup>3</sup> (Workers - Long-term local effects)
<b>85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated</b>		
Dermal	DNEL	3.33 mg/kg bw/day (Workers - Long-term systemic effects)
<b>108-31-6 maleic anhydride</b>		
Dermal	DNEL	0.2 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	0.081 mg/m <sup>3</sup> (Workers - Long-term systemic effects)

**PNECs**

<b>1330-20-7 xylene</b>	
PNEC	6.58 mg/L (Sewage treatment)
PNEC	12.46 mg/kg dwt (Fresh water sediment) 12.46 mg/kg dwt (Marine water sediment) 2.31 mg/kg dwt (Soil)
PNEC	327 µg/L (Freshwater) 327 µg/L (Marine water)
<b>68512-30-1 Phenol, methylstyrenated</b>	
PNEC	2.4 mg/L (Sewage treatment)
PNEC	1,064 mg/kg dwt (Fresh water sediment) 106.4 mg/kg dwt (Marine water sediment)
PNEC	8.89 mg/kg (Secondary Poisoning) 212.2 mg/kg (Soil)
PNEC	14 µg/L (Freshwater) 1.4 µg/L (Marine water)
<b>78-83-1 2-methylpropan-1-ol</b>	
PNEC	10 mg/L (Sewage treatment)
PNEC	1.56 mg/kg dwt (Fresh water sediment) 0.156 mg/kg dwt (Marine water sediment)
PNEC	0.0765 mg/kg (Soil)
PNEC	400 µg/L (Freshwater) 40 µg/L (Marine water)
<b>100-41-4 ethylbenzene</b>	
PNEC	0.1 mg/L (Freshwater) 0.01 - 0.1 mg/L (Marine water) 9.6 mg/L (Sewage treatment)
PNEC	13.7 mg/kg dwt (Fresh water sediment) 1.37 mg/kg dwt (Marine water sediment) 2.68 mg/kg dwt (Soil)

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PNEC	20 mg/kg (Secondary Poisoning)
<b>107-98-2 1-methoxy-2-propanol</b>	
PNEC	10 mg/L (Freshwater) 1 mg/L (Marine water) 100 mg/L (Sewage treatment)
PNEC	52.3 mg/kg dwt (Fresh water sediment) 5.2 mg/kg dwt (Marine water sediment)
PNEC	4.59 mg/kg (Soil)
<b>100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</b>	
PNEC	0.058 mg/kg dwt (Fresh water sediment) 0.0058 mg/kg dwt (Marine water sediment)
PNEC	0.484 mg/kg (Soil)
<b>85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated</b>	
PNEC	100 mg/L (Sewage treatment)
<b>108-31-6 maleic anhydride</b>	
PNEC	0.0379 - 0.075 mg/L (Freshwater) 0.00379 - 0.0075 mg/L (Marine water) 4.46 - 44.6 mg/L (Sewage treatment)
PNEC	0.06 - 0.296 mg/kg dwt (Fresh water sediment) 0.006 - 0.0296 mg/kg dwt (Marine water sediment)
PNEC	6.67 mg/kg (Secondary Poisoning) 0.01 - 0.0369 mg/kg (Soil)

**Ingredients with biological limit values:**

<b>1330-20-7 xylene</b>	
BMGV (Great Britain)	5.0 mmol/l creatinine Sampling time: post shift Parameter: methyl hippuric acid of urine
BNO (Finland)	5.0 mmol/l Näytteenottoajankohta: Työvuoron päätyttyä Parametri: virtsan metyylihippuurihappo
<b>100-41-4 ethylbenzene</b>	
BMGV (Great Britain)	5.2 mmol/l creatinine Sampling time: post shift after working week or exposure period Parameter: mandelic acid of urine
BNO (Finland)	5.2 mmol/l Näytteenottoajankohta: Työvuoron päätyttyä työviikon tai altistumisjakson loputtua Parametri: virtsan mantelihappo

**Additional information:**

The information is based on the valid lists at the time of manufacture (Finland 654/2020).

**8.2 Exposure controls**

**Appropriate engineering controls** No further data; see item 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic 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 HTP, suitable respiratory protection must be worn.

**Respiratory protection:**

If ventilation is insufficient or if workers are exposed to concentrations above the exposure limit they must use half- or full mask with gas filter A (brown, organic substances), and when grinding P2 (IIB) -type dust filter. Mask with combined filter (gas & dust) A2-P2 must be used when spraying. In the continuous long-term work it is recommended to use motored air protector or separative protector (fresh air hood or compressed air hood or such).

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· **Hand protection**



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: Teflon, nitrile rubber, 4H, polyvinyl alcohol (PVA)

May be used, gloves(breakthrough time) 4 - 8 hours: Viton®, Barricade, CPF 3, Responder, neoprene, PVC

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

The eye flushing device should be located near the the paint work area.

· **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· <b>Colour:</b>	According to product specification
· <b>Odour:</b>	Strong
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	108 °C (78-83-1 2-methylpropan-1-ol)
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	1.1 Vol % (1330-20-7 xylene)
· <b>Upper:</b>	7 Vol % (1330-20-7 xylene)
· <b>Flash point:</b>	24 °C
· <b>Ignition temperature:</b>	385 °C (68512-30-1 Phenol, methylstyrenated)
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity at 40 °C</b>	> 20.5 mm <sup>2</sup> /s
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	6.7 - 8.2 hPa (1330-20-7 xylene)
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.2 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· **9.2 Other information**

· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Auto-ignition temperature:</b>	Product is not selfigniting.

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· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	
Flammable liquid and vapour.	
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No specific test data related to reactivity available for this product or its ingredients.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Keep away from oxidizing agents, strongly alkaline and strongly acidic materials.
- **10.6 Hazardous decomposition products:**  
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

<b>25036-25-3 Epoxy resin (MW 700-1100)</b>		
Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rabbit)
<b>1330-20-7 xylene</b>		
Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	4,300 mg/kg (rabbit)
Inhalative	LC50/4 h	20 mg/l (rat)
<b>68512-30-1 Phenol, methylstyrenated</b>		
Oral	LD50	> 2,000 mg/kg (rat) (OECD 423)
Dermal	LD50	> 2,000 mg/kg (rat) (OECD 402)

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<b>78-83-1 2-methylpropan-1-ol</b>		
Oral	LD50	3,350 mg/kg (rat)
Dermal	LD50	2,460 mg/kg (rabbit)
<b>100-41-4 ethylbenzene</b>		
Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)
Inhalative	LC50/4 h	4,000 mg/l (rabbit)
<b>107-98-2 1-methoxy-2-propanol</b>		
Oral	LD50	4,016 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
<b>100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</b>		
Oral	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	> 5,050 mg/l (rat)
<b>85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated</b>		
Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
<b>108-31-6 maleic anhydride</b>		
Oral	LD50	1,090 mg/kg (rat)
Dermal	LD50	2,620 mg/kg (rabbit)

- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Ethylbenzene may cause cancer to humans (carcinogenic, group 2B, IARC), but information available is insufficient for satisfactory estimate.
- **11.2 Information on other hazards**

· <b>Endocrine disrupting properties</b>		
68512-30-1	Phenol, methylstyrenated	List II
556-67-2	octamethylcyclotetrasiloxane	List II, III

**SECTION 12: Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:**

<b>1330-20-7 xylene</b>		
48-h EC50	165 mg/L	(Daphnia magna)
96-h LC50	26.7 mg/L	(Pimephales promelas)
48-h LC50	86 mg/L	(Leuciscus idus melanotus)
<b>68512-30-1 Phenol, methylstyrenated</b>		
96-h LL50	25.8 mg/L	(Fish)
48-h EL50	14 - 51 mg/L	(Daphnia magna)
72-h EL50	15 mg/L	(Algae)

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<b>78-83-1 2-methylpropan-1-ol</b>	
72-h EC50	593 - 1,799 mg/L (Algae)
48-h EC50	1.1 mg/L (Daphnia magna)
96-h LC50	1.43 mg/L (Fish)
<b>100-41-4 ethylbenzene</b>	
48-h EC50	7.2 mg/L (Daphnia magna)
96-h LC50	4.2 mg/L (Oncorhynchus mykiss)
<b>107-98-2 1-methoxy-2-propanol</b>	
48-h EC50	21.1 - 25.9 mg/L (Daphnia magna)
96-h LC50	1 - 20.8 mg/L (Fish)
<b>100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine</b>	
96-h LL50	10 mg/L (Fish)
48-h EL50	10 mg/L (Daphnia magna)
72-h EL50	100 mg/L (Algae)
<b>85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated</b>	
72-h EC50	2.76 - 100 mg/L (Algae)
48-h EC50	0.53 - 100 mg/L (Daphnia magna)
96-h LC50	1.17 - 100 mg/L (Fish)
<b>108-31-6 maleic anhydride</b>	
72-h EC50	65.78 - 150 mg/L (Algae)
48-h EC50	42.81 - 330 mg/L (Daphnia magna)
96-h LC50	75 mg/L (Fish)

**12.2 Persistence and degradability**

Biodegradation:

Xylene: readily

Ethylbenzene: readily

1-methoxy-2-propanol: 96 % (28 d) -> readily

**12.3 Bioaccumulative potential**

Xylene: LogPow = 3,12 (low)

2-methylpropan-1-ol: LogPow = 0,76 (low)

Ethylbenzene: LogPow = 3,15 (low)

**12.4 Mobility in soil** No further relevant information available.

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.

**12.7 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Recommendation**

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

**European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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**Uncleaned packaging:**

**Recommendation:**

Empty, dry paint containers (hole made to the bottom) should be taken to collection centres for metallic paint packages. If this collecting/recycling centre doesn't exist, containers can be taken to a local dump pit. For more information contact your local waste disposal authorities or paint deliverer.


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**SECTION 14: Transport information**

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name · ADR, IMDG, IATA	PAINT
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
· Class	3 Flammable liquids.
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number:	Warning: Flammable liquids. 30 F-E, S-E
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Transport category · Tunnel restriction code	5L 3 D/E
· IMDG · Limited quantities (LQ)	5L
· UN "Model Regulation":	UN1263, PAINT, 3, III

**SECTION 15: Regulatory information**

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.
· Seveso category FLAMMABLE LIQUIDS P5c FLAMMABLE LIQUIDS
· Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
None of the ingredients is listed.
· REGULATION (EU) 2019/1148
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
None of the ingredients is listed.

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**· Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**· Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Relevant phrases**

- 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.
- H314 Causes severe skin burns and eye damage.
- 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.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

**· Contact:** Nor-Maali Oy, tel. +358 3 874 650 or sds@nor-maali.fi

**· Date of previous version:** 16.12.2019

**· Version number of previous version:** 6

**· Abbreviations and acronyms:**

- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Skin Sens. 1A: Skin sensitisation – Category 1A
- Skin Sens. 1B: Skin sensitisation – Category 1B
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**· \* Data compared to the previous version altered.**