




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

- **1.1 Product identifier**
- **Trade name:** Normastic 405, Normastic 405 AL Comp. B
- **UFI:** HQKJ-GMGQ-100P-MEU8
- **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. B  
 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.               |
| Aquatic Chronic 3   | H412 Harmful to aquatic life with long lasting effects. |

- **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:**  
 Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine  
 Phenol, methylstyrenated  
 Methyleneoxide, polymer with benzenamine, hydrogenated  
 2-methylpropan-1-ol

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3,6-diazaoctanethylenediamin  
 4,4'-methylenebis(cyclohexylamine)

**Hazard statements**

H226 Flammable liquid and vapour.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H317 May cause an allergic skin reaction.  
 H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P261 Avoid breathing mist/vapours/spray.  
 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.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.  
**vPvB:** Not applicable.

**Determination of endocrine-disrupting properties**

68512-30-1	Phenol, methylstyrenated	List II
69-72-7	salicylic acid	List II, III

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

**3.2 Mixtures**

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

**Dangerous components:**

CAS: 68512-30-1 EINECS: 270-966-8 Reg.nr.: 01-2119555274-38-	Phenol, methylstyrenated Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10 - 25%
CAS: 68082-29-1 NLP: 500-191-5 Reg.nr.: 01-2119972320-44-	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1A, H317	2.5 - 10%
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	2.5 - 10%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38-	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	2.5 - 10%
CAS: 135108-88-2 EC number: 603-894-6 Reg.nr.: 01-2119983522-33-	Methyleneoxide, polymer with benzenamine, hydrogenated STOT RE 2, H373; Skin Corr. 1C, H314; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	< 5%
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: 90-72-2 EINECS: 202-013-9 Reg.nr.: 01-2119560597-27-	2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	1 - 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	1 - 2.5%
CAS: 220926-97-6 ELINCS: 432-840-2 Reg.nr.: 01-0000017900-73-	12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine Acute Tox. 4, H332; Aquatic Chronic 4, H413	1 - 2.5%

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CAS: 69-72-7 EINECS: 200-712-3 Reg.nr.: 01-2119486984-17-	salicylic acid	(Contd. of page 2) < 0.6%
	Repr. 2, H361d; Eye Dam. 1, H318; Acute Tox. 4, H302	
CAS: 112-24-3 EINECS: 203-950-6 Reg.nr.: 01-2119487919-13-	3,6-diazaoctanethylenediamin	< 0.6%
	Skin Corr. 1B, H314; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 1761-71-3 EINECS: 217-168-8	4,4'-methylenebis(cyclohexylamine)	< 0.6%
	STOT RE 2, H373; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1B, H317	

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

**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**  
In case of fire, the following can be released: smoke (contains health hazard decomposition products).
- **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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- **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). Water polluting material.

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- **6.3 Methods and material for containment and cleaning up:**  
 Absorb liquid components with liquid-binding material (sand, peat or other absorbent material).  
 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 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:**

<b>1330-20-7 xylene</b>	
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
<b>100-51-6 Benzyl alcohol</b>	
HTP	Long-term value: 45 mg/m <sup>3</sup> , 10 ppm
<b>78-83-1 2-methylpropan-1-ol</b>	
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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**(EU) 2021/848**

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<b>100-41-4 ethylbenzene</b>	
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
<b>· DNELs</b>	
<b>68082-29-1 Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine</b>	
Dermal	DNEL 0.272 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL 0.952 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>1330-20-7 xylene</b>	
Dermal	DNEL 180 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL 211 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>100-51-6 Benzyl alcohol</b>	
Dermal	DNEL 8 mg/kg bw/day (Workers - Long-term systemic effects) 40 mg/kg bw/day (Workers - acute systemic effects)
Inhalative	DNEL 22 mg/m <sup>3</sup> (Workers - Long-term systemic effects) 110 mg/m <sup>3</sup> (Workers - acute systemic effects)
<b>135108-88-2 Methyleneoxide, polymer with benzenamine, hydrogenated</b>	
Dermal	DNEL 2 mg/kg bw/day (Workers - Long-term systemic effects) 6 mg/kg bw/day (Workers - acute systemic effects)
Inhalative	DNEL 0.2 mg/m <sup>3</sup> (Workers - Long-term systemic effects) 2 mg/m <sup>3</sup> (Workers - acute 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>90-72-2 2,4,6-tris(dimethylaminomethyl)phenol</b>	
Dermal	DNEL 150 µg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL 0.53 mg/m <sup>3</sup> (Workers - Long-term systemic 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>220926-97-6 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine</b>	
Inhalative	DNEL 0.332 mg/m <sup>3</sup> (Workers - Long-term local effects)
<b>69-72-7 salicylic acid</b>	
Dermal	DNEL 2.3 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL 5 mg/m <sup>3</sup> (Workers - Long-term systemic effects) 5 mg/m <sup>3</sup> (Workers - Long-term local effects)
<b>1761-71-3 4,4'-methylenebis(cyclohexylamine)</b>	
Dermal	DNEL 53 µg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL 0.13 mg/m <sup>3</sup> (Workers - Long-term systemic effects)
<b>· PNECs</b>	
<b>68082-29-1 Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine</b>	
PNEC	3.84 mg/L (Sewage treatment)
PNEC	434.02 mg/kg dwt (Fresh water sediment) 43.4 mg/kg dwt (Marine water sediment)
PNEC	86.78 mg/kg (Soil)
PNEC	4.34 µg/L (Freshwater) 0.434 µg/L (Marine water)

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**1330-20-7 xylene**

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)

**100-51-6 Benzyl alcohol**

PNEC 1 - 1.02 mg/L (Freshwater)  
 0.1 - 0.102 mg/L (Marine water)  
 39 mg/L (Sewage treatment)  
 PNEC 5.27 mg/kg dwt (Fresh water sediment)  
 0.527 mg/kg dwt (Marine water sediment)  
 PNEC 0.456 mg/kg (Soil)

**135108-88-2 Methyleneoxide, polymer with benzenamine, hydrogenated**

PNEC 1.9 mg/L (Sewage treatment)  
 PNEC 15 mg/kg dwt (Fresh water sediment)  
 1.5 mg/kg dwt (Marine water sediment)  
 PNEC 1.8 mg/kg (Soil)  
 PNEC 15 µg/L (Freshwater)  
 1.5 µg/L (Marine water)

**78-83-1 2-methylpropan-1-ol**

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)

**90-72-2 2,4,6-tris(dimethylaminomethyl)phenol**

PNEC 0.2621 mg/kg dwt (Fresh water sediment)  
 0.026211 mg/kg dwt (Marine water sediment)  
 PNEC 0.0254 mg/kg (Soil)  
 PNEC 46 µg/L (Freshwater)  
 4.6 µg/L (Marine water)  
 200 µg/L (Sewage treatment)

**100-41-4 ethylbenzene**

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)  
 PNEC 20 mg/kg (Secondary Poisoning)

**69-72-7 salicylic acid**

PNEC 162 mg/L (Sewage treatment)  
 PNEC 1.42 mg/kg dwt (Fresh water sediment)  
 0.142 mg/kg dwt (Marine water sediment)  
 PNEC 0.166 mg/kg (Soil)  
 PNEC 200 µg/L (Freshwater)  
 20 µg/L (Marine water)

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**Safety data sheet**

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

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**1761-71-3 4,4'-methylenebis(cyclohexylamine)**

PNEC	3.2 mg/L (Sewage treatment)
PNEC	14.6 - 137 mg/kg dwt (Fresh water sediment)
	1.46 - 13.7 mg/kg dwt (Marine water sediment)
PNEC	0.556 mg/kg (Secondary Poisoning)
	4.56 - 27.3 mg/kg (Soil)
PNEC	80 µg/L (Freshwater)
	8 µg/L (Marine water)

**Ingredients with biological limit values:**

**1330-20-7 xylene**

BMGV	5.0 mmol/l creatinine
	Sampling time: post shift
	Parameter: methyl hippuric acid of urine

**100-41-4 ethylbenzene**

BMGV	5.2 mmol/l creatinine
	Sampling time: post shift after working week or exposure period
	Parameter: mandelic acid of urine

**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 (Ib) -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).

**Hand protection**



Protective gloves

Preventive skin protection by use of skin-protecting agents is recommended.

**Material of gloves**

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: 4H, butyl rubber, fluor rubber, Viton®

May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber, 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

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**SECTION 9: Physical and chemical properties**

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

· **General Information**

· <b>Colour:</b>	Colourful
· <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>	137 - 143 °C (1330-20-7 xylene)
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	1.1 Vol %
· <b>Upper:</b>	7.0 Vol %
· <b>Flash point:</b>	24 °C
· <b>Ignition temperature:</b>	436 °C (100-51-6 Benzyl alcohol)
· <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>	0 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.27 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.
· <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.

· **Information with regard to physical hazard classes**

· <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

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· Desensitised explosives 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**  
 Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- **10.5 Incompatible materials:** No further relevant information available.
- **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:**

**68512-30-1 Phenol, methylstyrenated**

Oral	LD50	> 2,000 mg/kg (rat) (OECD 423)
Dermal	LD50	> 2,000 mg/kg (rat) (OECD 402)

**68082-29-1 Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine**

Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

**1330-20-7 xylene**

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	4,300 mg/kg (rabbit)
Inhalative	LC50/4 h	20 mg/l (rat)

**100-51-6 Benzyl alcohol**

Oral	LD50	1,620 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 4,178 mg/l (rat)

**135108-88-2 Methyleneoxide, polymer with benzenamine, hydrogenated**

Oral	LD50	367 mg/kg (rat)
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**78-83-1 2-methylpropan-1-ol**

Oral	LD50	3,350 mg/kg (rat)
Dermal	LD50	2,460 mg/kg (rabbit)

**90-72-2 2,4,6-tris(dimethylaminomethyl)phenol**

Oral	LD50	> 2,169 mg/kg (rat)
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**100-41-4 ethylbenzene**

Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)
Inhalative	LC50/4 h	4,000 mg/l (rabbit)

**220926-97-6 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine**

Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

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Inhalative	LC50/4 h	3.56 mg/l (rat)
<b>69-72-7 salicylic acid</b>		
Oral	LD50	891 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
<b>112-24-3 3,6-diazaoctanethylenediamin</b>		
Oral	LD50	2,500 mg/kg (rat)
Dermal	LD50	805 mg/kg (rabbit)
<b>1761-71-3 4,4'-methylenebis(cyclohexylamine)</b>		
Oral	LD50	380 mg/kg (rat)
Dermal	LD50	> 2,110 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.
- **Other information (about experimental toxicology):**  
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. Swallowing may cause nausea, diarrhea, vomiting, gastro-intestinal irritation and chemical pneumonia.
- **Additional toxicological information:**
- **CMR effects (carcinogenity, 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
69-72-7	salicylic acid	List II, III

**SECTION 12: Ecological information**

· **12.1 Toxicity**

· <b>Aquatic toxicity:</b>		
<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)	
<b>68082-29-1 Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine</b>		
72-h EC50	4.34 mg/L (Algae)	
48-h EC50	7.07 mg/L (Daphnia magna)	
96-h LC50	7.07 mg/L (Fish)	

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<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>100-51-6 Benzyl alcohol</b>	
72-h EC50	770 mg/L (Algae) (OECD TG 201)
48-h EC50	230 mg/L (Daphnia magna) (OECD TG 202)
96-h LC50	460 mg/L (Fish) (EPA OPP 72-1)
<b>135108-88-2 Methyleneoxide, polymer with benzenamine, hydrogenated</b>	
72-h EC50	43.9 mg/L (Algae)
48-h EC50	15.4 - 18.6 mg/L (Daphnia magna)
96-h LC50	63 mg/L (Fish)
NOEC	1.2 mg/L (Algae)
<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>90-72-2 2,4,6-tris(dimethylaminomethyl)phenol</b>	
72-h EC50	46.7 mg/L (Algae)
48-h EC50	100 mg/L (Daphnia magna)
96-h LC50	100 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>220926-97-6 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine</b>	
72-h EC50	> 100 mg/L (Pseudokirchneriella subcapitata) (OECD 201)
48-h EC50	> 100 mg/L (Daphnia magna) (OECD 202)
96-h LC50	> 100 mg/L (Oncorhynchus mykiss) (OECD 203)
<b>69-72-7 salicylic acid</b>	
72-h EC50	100 mg/L (Algae)
48-h EC50	870 mg/L (Daphnia magna)
96-h LC50	1.37 mg/L (Fish)
<b>112-24-3 3,6-diazaoctanethylenediamin</b>	
48-h LC50	33,900 µg/L (Daphnia magna)
<b>1761-71-3 4,4'-methylenebis(cyclohexylamine)</b>	
72-h EC50	140 - 141.42 mg/L (Algae)
48-h EC50	6.84 - 9.24 mg/L (Daphnia magna)
96-h LC50	68 - 100 mg/L (Fish)

**12.2 Persistence and degradability**

Biodegradation:

Xylene: readily

Benzyl alcohol: readily

2,4,6-tris(dimethylaminomethyl)phenol: 4 %, 28 d -> no readily, OECD 301D Ready Biodegradability - Closet Bottle Test

Ethylbenzene: readily

3,6-diazaoctanethylenediamin: not readily

**12.3 Bioaccumulative potential**

Xylene: LogPow = 3,12 (low)

Benzyl alcohol: LogPow = 1,1 (low)

2,4,6-tris(dimethylaminomethyl)phenol: LogPow = 0,219 (low)

Ethylbenzene: LogPow = 3,15 (low)

3,6-diazaoctanethylenediamin: LogPow = -1,6 -> -1,4 (low)

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- **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

- **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.

**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** Warning: Flammable liquids.
- **Hazard identification number (Kemler code):** 30
- **EMS Number:** F-E,S-E
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Limited quantities (LQ)** 5L
- **Transport category** 3
- **Tunnel restriction code** D/E
- **IMDG**
- **Limited quantities (LQ)** 5L

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· 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.

· **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.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

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

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· **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 Corr. 1C: Skin corrosion/irritation – Category 1C  
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  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1A: Skin sensitisation – Category 1A  
Skin Sens. 1B: Skin sensitisation – Category 1B  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Asp. Tox. 1: Aspiration hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3  
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

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

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