

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

- **1.1 Product identifier**
- **Trade name:** Epocoat 300/Naviguard NM Comp. B
- **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**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
 Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
 Acute Tox. 4 H332 Harmful if inhaled.
 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 CLP regulation.

• **Hazard pictograms**



GHS05 GHS07

• **Signal word** Danger

• **Hazard-determining components of labelling:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine
 Benzyl alcohol
 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products
 with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 butan-1-ol
 ethylenediamine

• **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.

(Contd. on page 2)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 1)

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
- P261 Avoid breathing dust/fume/gas/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.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

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

• **Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38-	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	25 - 50%
CAS: 2855-13-2 EINECS: 220-666-8 Reg.nr.: 01-2119514687-32-	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	25 - 50%
CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33-	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10 - 50%
CAS: 71-36-3 EINECS: 200-751-6 Reg.nr.: 01-2119484630-38-	butan-1-ol Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	2.5 - 10%
CAS: 69-72-7 EINECS: 200-712-3 Reg.nr.: 01-2119486984-17-	salicylic acid Repr. 2, H361d; Eye Dam. 1, H318; Acute Tox. 4, H302	< 3%
CAS: 107-15-3 EINECS: 203-468-6 Reg.nr.: 01-2119480383-37-	ethylenediamine Flam. Liq. 3, H226; Resp. Sens. 1, H334; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	< 0.2%

• **SVHC**

107-15-3 ethylenediamine

- **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 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.

(Contd. on page 3)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 2)

- **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.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Information for doctor:** Treatment according to symptoms.
- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **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. 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**
Avoid breathing vapor or mist. Provide adequate ventilation. Wear personal protective equipment (extinguishing suit, protective gloves, rubber boots). Keep unauthorized persons away.
- **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.
- **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**
Handling must be organised so that skin contact with the product and splashes to eyes can be avoided.
- **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.

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(Contd. on page 4)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

• **Additional information about design of technical facilities:** No further data; see item 7.

• **8.1 Control parameters**

Ingredients with limit values that require monitoring at the workplace:	
100-51-6 Benzyl alcohol	
HTP	Long-term value: 45 mg/m ³ , 10 ppm
71-36-3 butan-1-ol	
HTP	Short-term value: 230 mg/m ³ , 75 ppm Long-term value: 150 mg/m ³ , 50 ppm Skin
107-15-3 ethylenediamine	
HTP	Short-term value: 50 mg/m ³ , 20 ppm Long-term value: 25 mg/m ³ , 10 ppm skin

• **Additional information:**

The information is based on the valid lists at the time of manufacture (Finland 538/2018).

• **8.2 Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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.

• **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).

• **Protection of hands:**



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: neoprene, fluor rubber, Viton®, 4H, butyl rubber

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 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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(Contd. on page 5)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 4)

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Yellowish
Odour:	Strong
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	> 200 °C

· **Flash point:** 105 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 435 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	1.3 Vol %
Upper:	13 Vol %

· **Vapour pressure at 20 °C:** 0.1 hPa

· **Density at 20 °C:** 1.02 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

Dynamic: Not determined.

Kinematic at 40 °C: > 20.5 mm²/s

· **9.2 Other information**

No further relevant information available.

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:** No further relevant information available.

· **10.6 Hazardous decomposition products:**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 5)

SECTION 11: Toxicological information

• **11.1 Information on toxicological effects**

• **Acute toxicity**

Harmful if swallowed or if inhaled.

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

100-51-6 Benzyl alcohol

Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 4.178 mg/l (rat)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	LD50	1,030 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

71-36-3 butan-1-ol

Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/l (rat)

69-72-7 salicylic acid

Oral	LD50	891 mg/kg (rat)
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107-15-3 ethylenediamine

Oral	LD50	866 mg/kg (rat) (OECD Guideline 401)
Dermal	LD50	560 mg/kg (rabbit)
Inhalative	LC50/4 h	14.7 mg/l (rat)

• **Primary irritant effect:**

• **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

• **Serious eye damage/irritation**

Causes serious eye damage.

• **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

• **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

• **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.

SECTION 12: Ecological information

• **12.1 Toxicity**

• **Aquatic toxicity:**

100-51-6 Benzyl alcohol

72-h EC50	770 mg/L (Pseudokirchneriella subcapitata) (OECD TG 201)
48-h EC50	230 mg/L (Daphnia magna) (OECD TG 202)
96-h LC50	460 mg/L (Pimephales promelas) (EPA OPP 72-1)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

48-h EC50	17.4 - 21.5 mg/L (Daphnia magna)
72-h IC50	37 mg/L (Scendesmus subspicatus)

71-36-3 butan-1-ol

96-h LC50	1.73 mg/L (Fathead minnow)
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69-72-7 salicylic acid

72-h EC50	> 100 mg/L (Algae)
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(Contd. on page 7)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 6)

48-h EC50 870 mg/L (Daphnia magna)
 96-h LC50 1.38 mg/L (Fish)

- **12.2 Persistence and degradability**
 Biodegradation:
 Benzyl alcohol: readily
 3-aminomethyl-3,5,5-trimethylcyclohexylamine: not readily
- **12.3 Bioaccumulative potential** Benzyl alcohol: LogPow = 1,1 (low)
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 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**
- **ADR, IMDG, IATA** UN3066
- **14.2 UN proper shipping name**
- **ADR, IMDG, IATA** PAINT
- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**
- 
- **Class** 8 Corrosive substances.
- **14.4 Packing group**
- **ADR, IMDG, IATA** III
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Warning: Corrosive substances.
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

(Contd. on page 8)

Trade name: Epocoat 300/Naviguard NM Comp. B

(Contd. of page 7)

· Transport/Additional information:

- **ADR**
- **Limited quantities (LQ)** 5L
- **Transport category** 3
- **Tunnel restriction code** E
- **IMDG** EMS number: F-A, S-B
- **Limited quantities (LQ)** 5L
- **UN "Model Regulation":** UN3066, PAINT, 8, 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.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· Substances of very high concern (SVHC) according to REACH, Article 57

107-15-3	ethylenediamine
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- **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**
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 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.
 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.
 H361d Suspected of damaging the unborn child.
 H412 Harmful to aquatic life with long lasting effects.
- **Contact:** Nor-Maali Oy, tel. +358 3 874 650 or sds@nor-maali.fi
- **Abbreviations and acronyms:**
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity - oral – 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
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
- *** Data compared to the previous version altered.**