


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

- **1.1 Product identifier**
- **Trade name:** Norepox Aqua DTM Comp. A
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Coating
- **Application of the substance / the mixture**
 waterborne epoxy coating, 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**
-  GHS07
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye 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 CLP regulation.
- **Hazard pictograms**



- **Signal word** Warning
- **Hazard-determining components of labelling:**
 Epoxy resin (MW 700-1100)
 bis[4-(2,3-epoxypropoxy)phenyl]propane
 oxirane, mono[(C12-14-alkyloxy)methyl] derivs
- **Hazard statements**
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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- P403+P233 Store in a well-ventilated place. Keep container tightly closed. (Contd. of page 1)
- **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.

SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**

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: 13939-25-8 EINECS: 237-714-9 Reg.nr.: 01-2119970565-28-	Aluminium dihydrogen phosphate Eye Irrit. 2, H319	1 - 10%
CAS: 123-42-2 EINECS: 204-626-7 Reg.nr.: 01-2119473975-21-	4-hydroxy-4-methylpentan-2-one Flam. Liq. 3, H226; Eye Irrit. 2, H319	< 2.5%
CAS: 1675-54-3 EINECS: 216-823-5 Reg.nr.: 01-2119456619-26-	bis[4-(2,3-epoxypropoxy)phenyl]propane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	1 - 2.5%
CAS: 770-35-4 EINECS: 212-222-7	1-Phenoxypropan-2-ol Eye Irrit. 2, H319	1 - 2.5%
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%
CAS: 5131-66-8 EINECS: 225-878-4 Reg.nr.: 01-2119475527-28-	3-butoxypropan-2-ol Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.5%
CAS: 160875-66-1 EC number: 931-369-4	1-Heptanol, 2-propyl-, 7EO Eye Dam. 1, H318; Acute Tox. 4, H302	< 2.5%
CAS: 1431957-88-8 EC number: 836-193-0	Polymer with quaternized ammonium groups Aquatic Acute 1, H400; Aquatic Chronic 1, H410	< 0.7%
CAS: 68609-97-2 EINECS: 271-846-8 Reg.nr.: 01-2119485289-22-	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	< 0.5%

- **Additional information:**
 Contains: > 1 % TiO₂ (<10 µm)
 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.
- **After eye contact:**
 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

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- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **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** Not required.
- **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.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
The product must be stored in a dry, well ventilated, cool (temperature > +5C) space. Must be transported and stored free from frost. Containers must be kept tightly closed and away from foodstuff.
- **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**
- **Additional information about design of technical facilities:** No further data; see item 7.

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Ingredients with limit values that require monitoring at the workplace:	
123-42-2 4-hydroxy-4-methylpentan-2-one	
HTP	Short-term value: 360 mg/m ³ , 75 ppm Long-term value: 240 mg/m ³ , 50 ppm
107-98-2 1-methoxy-2-propanol	
HTP	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 370 mg/m ³ , 100 ppm
Sk	

Additional information:

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

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.

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

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Colourful
Odour:	Light
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/freezing point: Undetermined.

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Initial boiling point and boiling range: Undetermined.	
· Flash point:	> 100 °C
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.4 g/cm ³
· 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 mm ² /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** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:		
123-42-2 4-hydroxy-4-methylpentan-2-one		
Oral	LD50	3,002 mg/kg (rat) (OECD Guideline 401 (Acute Oral Toxicity))
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Oral	LD50	> 2,000 mg/kg (rat) (OECD Guideline 420 (Acute Oral Toxicity - Fixed Do))
Dermal	LD50	> 2,000 mg/kg (rat) (OECD Guideline 402 (Acute Dermal Toxicity))
770-35-4 1-Phenoxypropan-2-ol		
Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	5,400 mg/l (rat)
107-98-2 1-methoxy-2-propanol		
Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	13,000 mg/kg (rabbit)
5131-66-8 3-butoxypropan-2-ol		
Oral	LD50	3,300 mg/kg (rat) (OECD Guideline 401 (Acute Oral Toxicity))
Dermal	LD50	> 2,000 mg/kg (rat) (OECD Guideline 402 (Acute Dermal Toxicity))

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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **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:

1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

72-h EC50	11 mg/L (Algae)
96-h LC50	2 mg/L (Fish)
NOEC	4.2 mg/L (Algae)

107-98-2 1-methoxy-2-propanol

48-h EC50	23.3 mg/L (Daphnia magna)
96-h LC50	6.8 mg/L (Leuciscus idus melanotus)

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

48-h EC50	< 10 mg/L (Daphnia magna)
96-h LC50	100 mg/L (Fish)

· 12.2 Persistence and degradability

Biodegradability:

bis[4-(2,3-epoxypropoxy)phenyl]propane: not readily

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

· 12.3 Bioaccumulative potential

bis[4-(2,3-epoxypropoxy)phenyl]propane: LogPow > 3 (low)

4-hydroxy-4-methyl-2-pentanone: LogPow = -0,14 (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 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 15*	aqueous sludges containing paint or 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.

SECTION 14: Transport information

- **14.1 UN-Number**
· **ADR, ADN, IMDG, IATA** Not dangerous goods
- **14.2 UN proper shipping name**
· **ADR, ADN, IMDG, IATA** Not dangerous goods
- **14.3 Transport hazard class(es)**
· **ADR, ADN, IMDG, IATA**
· **Class** Not dangerous goods
- **14.4 Packing group**
· **ADR, IMDG, IATA** Not dangerous goods
- **14.5 Environmental hazards:**
· **Marine pollutant:** No
- **14.6 Special precautions for user** Do not freeze. Warm transport.
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.
- **UN "Model Regulation":** Not dangerous goods

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
- **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.
- **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.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
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.
- **Contact:** Nor-Maali Oy, tel. +358 3 874 650 or sds@nor-maali.fi

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· **Abbreviations and acronyms:**

Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
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
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic 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

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

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