

SAFETY DATA SHEET**Nanten EP W 2 Betonimaali ja betonilakka B-osa**

Regulation (EU) No 1907/2006, 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product identifier
Trade name	Nanten EP W 2 Betonimaali ja betonilakka B-osa (Component B)

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

The uses of the chemical	Paints and coatings – hardener. For professional use only.
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1.3 Details of the supplier of the Safety Data Sheet

	Nanten Oy
Street address	Teollisuustie 6
Postcode and post office	04300 Tuusula, Finland
Telephone number	+358 9 274 7970
E-mail address	nanten@nanten.com
	www.nanten.com

1.4 Emergency telephone number**Poison Information Centres**

Finland (Myrkytystietokeskus): 0800 147 111 or (+358) (0)9 471 977, open 24 h/d

Estonia (Mürgistusteabekeskus): 16662 or (+372) 7943 794, www.16662.ee

Sweden (Giftinformationscentralen): 010 456 6700 or +46 10 456 6700, open 24 h/d, or 112, open 24 h/d

Emergency Response Centres (Europe): 112

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 (CLP)

Acute Tox. 4	Harmful if swallowed.	H302
Skin Irrit. 2	Causes skin irritation.	H315
Eye Dam. 1	Causes severe eye damage.	H318
STOT SE 2	May cause respiratory irritation.	H335
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.	H412

2.2 Label elements

Signal word: Danger

Hazard Statements:

- H317 - May cause an allergic skin reaction.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements:

- H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements:

- P280 - Wear protective gloves and eye protection/face protection.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338, + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

Contains:

- Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N1,N2-bis(2-aminoethyl)-1,2-ethanediamine, 2-(chloromethyl)oxirane, 2-[(methylphenoxy)methyl]oxirane and a,a',a''-1,2,3-propanetriyltris[hydroxypoly[oxy(methyl-1,2-ethanediyl)]] (EC 620-335-1)
1-Methoxypropan-2-ol
(2-Methoxymethylethoxy)propanol
Propan-2-ol

2.3 Other hazards

No other information available.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**3.1 Substances**

This product is a mixture.

3.2 Mixtures

Substance name	CAS-, EC- or index number	REACH Registration No.	Concentration (weight-%)	Classification (EU 1272/2008 [CLP])
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N1,N2-bis(2-aminoethyl)-1,2-ethanediamine, 2-(chloromethyl)oxirane, 2-[(methylphenoxy)methyl]oxirane and a,a',a''-1,2,3-propanetriyltris[(-hydroxypoly[oxy(methyl-1,2-ethanediy)])]	EC: 620-335-1	- * (polymer)	30 – 45 %	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
1-Methoxypropan-2-ol	CAS: 107-98-2 EC: 203-539-1	01-2119457435-35	1 - 5 %	Flam. Liq. 3, H226 STOT SE 3, H336
(2-Methoxymethylethoxy)-propanol	CAS: 34590-94-8 EC: 252-104-2	01-2119450011-60	1 - 5 %	Not classified
Propan-2-ol	CAS: 67-63-0 EC: 200-661-7 Ind.: 603-117-00-0	01-2119457558-25	1 - 3 %	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
*) All monomers or other reactants in the polymer have been registered or are exempted according to Regulation 1907/2006/EC (REACH).				

See Section 16 for complete hazard statements (H-phrases).

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****Inhalation:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical attention if the person feels unwell. Place unconscious patient on the side in the recovery position and immediately call a doctor.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water. Continue rinsing for at least 10 minutes. Take off all contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical attention.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 10 minutes. Keep eyelids open. Get immediate medical attention/advice.

Ingestion:

IF SWALLOWED: Call a doctor if you feel unwell. Rinse mouth with water. Do not induce vomiting. Rinse mouth with water. Do not induce the person to vomit.

4.2 Most important symptoms and effects, both acute and delayed

Examples of symptoms after exposure to Phenol, 4,4'-(1-methylethylidene)bis-, ...:
Eyes: irritation, pain, pink eyes, tearing.
Skin: irritation, redness, blisters.
Respiratory tract: irritation, cough.
Digestive system: stomach pain.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: powder, ABC-powder, CO₂.
NOT recommended for safety reasons: strong water jet.

5.2 Special hazards arising from the substance or mixture

No specific information available.

5.3 Advice for firefighters

Wear firefighter's suit conforming to standard EN469, including protective helmet, boots and gloves, and a self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. Prevent entry to sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Keep unprotected persons away. Ensure good ventilation, especially in confined areas.

6.2 Environmental precautions

Stop leak if safe to do so. Do not allow to enter sewers, surface water or ground water.

6.3 Methods and material for containment and cleaning up

Absorb spillage with inert material, such as sand or vermiculite. Collect the material into an appropriate container and dispose of in accordance with regulations.

6.4 Reference to other sections

See Section 1 for contact information in case of emergency.
See Section 8 for information on personal protection equipment.
See Section 13 for information on waste treatment.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Wear protective gloves and eye protection/face protection. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist or vapours. Do not get in eyes, on skin, or on clothing.

Do not eat, drink or smoke when using this product. Wash hands cautiously after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store container tightly closed. Store in properly labelled containers. Do not store the product even temporarily in unlabelled vessels.

Store in a well-ventilated place. Store locked up. Store away from food and beverages. Keep away from heat and ignition sources.

Recommended storage temperature: +5...+30 °C. Protect from freezing.

7.3 Specific end use(s)

Recommendation: Observe instructions for use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

This list is not exhaustive. Other national/international regulations may concern the monitoring of exposure to the ingredients of this product.

OEL and DNEL values given below apply to work-related exposure.

Occupational Exposure Limit Values (OELs)

	TWA (8 h)		STEL (15 min)	
	ppm	mg/m ³	ppm	mg/m ³
OEL Finland (STM 2018)				
1-Methoxypropan-2-ol (CAS 107-98-2)	100	370	150	560
(2-Methoxymethylethoxy)propanol (CAS 34590-94-8)	50	310	-	-
Propan-2-ol (propanol) (CAS 67-63-0)	200	500	250	620
OEL Sweden (AFS 2018)				
1-Metoxi-2-propanol (CAS 107-98-2)	50	190	150	568
Dipropylenglykolmonometyleter (CAS 34590-94-8)	50	300	75	450
Isopropanol (CAS 67-63-0)	150	350	250	600
OEL Estonia (Vabariigi Valitsuse 20. märtsi 2001. a määrus nr 105)				
1-metoksü-2-propanool (CAS 107-98-2)	100	375	150	568
(2-etoksümetüületoksü)-propanool (CAS 34590-94-8)	50	308	-	-
Isopropanool (CAS 67-63-0)	150	350	250	600

TWA: Time-Weighted Average, STEL: Short-Term Exposure Limit

DNEL (Derived No Effect Level)

Route of exposure	Workers			
	Short-term local	Short-term systemic	Long-term local	Long-term systemic
1-Methoxypropan-2-ol				
Inhalation	553,5 mg/m ³	553,5 mg/m ³	not available	369 mg/m ³
Dermal	not available	not available	not available	183 mg/kg/d
(2-Methoxymethylethoxy)propanol				
Inhalation	not available	not available	not available	308 mg/m ³
Dermal	not available	not available	not available	283 mg/kg/d
Propan-2-ol				
Inhalation	not available	not available	not available	500 mg/m ³
Dermal	not available	not available	not available	888 mg/kg/d

mg/kg/d = mg per kg of body weight per day

PNEC (Predicted No Effect Concentration)

Compartment	1-Methoxypropan-2-ol	(2-Methoxymethyl-ethoxy)propanol	Propan-2-ol
Fresh water	10 mg/l	19 mg/l	140,9 mg/l
Marine water	1 mg/l	1,9 mg/l	140,9 mg/l
Occasional release	100 mg/l	190 mg/l	140,9 mg/l
Sewage treatment plant	100 mg/l	10 mg/l	2 251 mg/l
Fresh water sediment	52,3 mg/kg dw	70,2 mg/kg dw	552 mg/kg dw
Marine sediment	5,2 mg/kg dw	7,02 mg/kg dw	not available
Soil	4,59 mg/kg dw	2,74 mg/kg dw	28 mg/kg

dw = dry weight

8.2 Exposure controls**Engineering controls**

Ensure adequate ventilation, preferably local exhaust ventilation, OR use personal respiratory protection.
Provide eye wash bottles or stations at the workplace.

Eye and face protection

Wear tightly sealed chemical splash goggles. Wear face shield when appropriate. The goggles should have a CE-marking and comply with standard EN 166.

Skin protection

It is recommended to wear chemical protective clothing, at least such as EN13034/EN 13034+A1 certified clothing that provides a limited protection towards small quantities and splashes of liquid chemicals.

Hand protection

Wear chemical-resistant gloves complying with standard EN 374. Check during use that the gloves still retain their protective properties. Break-through times given by manufacturers are only informative. Break-through times cannot be accurately estimated for mixtures of chemical substances.

Recommended materials: butyl rubber, nitrile rubber. Recommended thickness: $\geq 0,4$ mm.

Respiratory protection

If ventilation is insufficient to prevent exposure, respiratory protection with a gas filter or an air-fed respirator should be worn. Recommended filter type: A/P2. Compliance with standard EN 529.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on physical and chemical properties**

Appearance	Liquid. Clear. Colourless or yellow.
Odour	Sweet
Odour threshold	0,05 ppm (mg/m ³)
pH	not available (not measured)
Melting point/freezing point	not available (not measured)
Initial boiling point and boiling range	not available (not measured)
Flash point	not available (not measured)
Evaporation rate	not available (not measured)
Flammability (solid, gas)	not available (not measured)
Upper/lower flammability or explosive limits	not available (not measured)
Vapour pressure	not available (not measured)
Vapour density	not available (not measured)
Density	1,04 g/cm ³ (23 °C)
Solubility(ies)	not available (not measured)
Partition coefficient: n-octanol/water	not available
Ignition temperature	not available
Decomposition temperature	not available
Viscosity	40 – 100 mPa * s (dynamic, 25 °C)
Explosive properties	no data available, mixture is not explosive
Oxidising properties	no data available

9.2 Other information

Content of organic solvents: ≤ 13 weight-%.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

No further relevant information available.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

Reacts with epoxy resins (Part A of a 2-component coating product), producing polymeric compounds. The reaction is heat-releasing (exothermic). No hazardous reactions identified when handled and stored according to provisions.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Formation of hazardous decomposition products is not expected under recommended conditions of storage, use and temperature.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

	Test / meter	Dose / concentration	Species
Phenol, 4,4'-(1-methylethylidene)bis-,...			
Oral	ATE	909,1 mg/kg	-
1-Methoxypropan-2-ol			
Oral	LD50	4 016 mg/kg	Rat
Inhalation	LC50	> 25,8 mg/l (vapour, 6 h)	Rat
Dermal	LD50	> 2 000 mg/kg	Rabbit
(2-Methoxymethylethoxy)propanol			
Oral	LD50	> 5 000 mg/kg	Rat
Inhalation	LC50	3,35 mg/l (vapour, 7 h)	Rat
Dermal	LD50	9 510 mg/kg	Rabbit
Propan-2-ol			
Oral	LD50	5 280 mg/kg	Rat
Inhalation	LC50	> 25 mg/l (vapour, 6 h)	Rat
Dermal	LD50	13 900 mg/kg	Rabbit

Skin corrosion/irritation

Phenol, 4,4'-(1-methylethylidene)bis,...: No information available.

Serious eye damage/irritation

Phenol, 4,4'-(1-methylethylidene)bis,...: No information available.

Respiratory or skin sensitisation

Phenol, 4,4'-(1-methylethylidene)bis,...: No information available.

CMR effects

Phenol, 4,4'-(1-methylethylidene)bis,...:

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Teratogenicity: No information available.

Reproductive toxicity: No information available.

The product does not contain substances that should be classified as CRM compounds, based on the information available.

Specific target organ toxicity (STOT)

Phenol, 4,4'-(1-methylethylidene)bis,...:

Single exposure: respiratory irritation, category 3.

Repeated exposure: no information available.

Aspiration hazard

Phenol, 4,4'-(1-methylethylidene)bis,...: no information available.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Species	Test	Meter	Result	Exposure time
Phenol, 4,4'-(1-methylethylidene)bis,...				
No information available.				
1-Methoxypropan-2-ol				
Fish, <i>Oncorhynchus mykiss</i> (rainbow trout)	Acute, semistatic, OECD 203	LC50	> 1 000 mg/l	96 h
Fish, <i>Leuciscus idus</i> (ide)	Acute, static (DIN 38412)	LC50	6 812 mg/l	96 h
Fish, <i>Pimephales promelas</i> (fathead minnow)	Acute, semistatic, OECD 203	LC50	20 800 mg/l	96 h
Invertebrates, <i>Daphnia magna</i> (water flea)	Acute, static, OECD 202	EC50	21 100 - 25 900 mg/l	48 h
Algae, <i>Pseudokirchneriella subcapitata</i> (green algae)	Acute, static growth inhibition test, OECD 201	ErC50	> 1 000 mg/l	7 d
(2-Methoxymethylethoxy)propanol				
Fish, <i>Poecilia reticulata</i> (millionfish)	Acute, static, OECD 203	LC50	> 1 000 mg/l	96 h
Invertebrates, <i>Daphnia magna</i> (water flea)	Acute, static, OECD 202	LC50	1 919 mg/l	48 h
Invertebrates, <i>Crangon crangon</i> (shrimp)	Acute, semistatic, OECD 202	LC50	> 1 000 mg/l	96 h
Invertebrates, <i>Acartia tonsa</i> (copepod)	Acute, static, ISO TC147/SC5/WG2	LC50	2 070 mg/l	48 h
Algae, <i>Pseudokirchneriella subcapitata</i> (green algae)	Acute, static growth inhibition test, OECD 201	ErC50	> 969 mg/l	7 d
Bacteria, <i>Pseudomonas putida</i>	Acute	EC10	4 168 mg/l	18 h
Invertebrates, <i>Daphnia magna</i> (water flea)	Chronic, flow-through	NOEC, LOEC	> 0,5 mg/l	22 d
Propan-2-ol				
Fish, <i>Pimephales promelas</i> (fathead minnow)	Acute, flow-through, OECD 203	LC50	9 640 mg/l	96 h
Invertebrates, <i>Daphnia magna</i> (water flea)	Acute, static, OECD 202	LC50	9 714 mg/l	24 h

Algae, <i>Scenedesmus subspicatus</i>	Acute	EC50	> 100 mg/l	72 h
Algae	Chronic	LOEC	1 000 mg/l	8 d
Bacteria	.	EC50	> 100 mg/l *	-
*) No adverse health effects.				

12.2 Persistence and degradability**Biological degradation**

	Result	Exposure time	Assessment
Phenol, 4,4'-(1-methylethylidene)bis,...	No information available.		
1-Methoxypropan-2-ol	96 %	28 d (OECD test)	Easily biodegradable
(2-Methoxymethylethoxy)propanol	75 %	28 d (OECD test)	Easily biodegradable
Propan-2-ol	53 %	5 d (aerobic, sewage)	Easily biodegradable

12.3 Bioaccumulative potential

	Log Pow	BCF	Bioaccumulation potential
Phenol, 4,4'-(1-methylethylidene)bis,...	No information available.		
1-Methoxypropan-2-ol	0,37	< 2	low
(2-Methoxymethylethoxy)propanol	1,01	not available	low
Propan-2-ol	0,05	not available	low
Log Pow: logarithmic octanol-water partitioning coefficient, BCF: Bioconcentration Factor			

12.4 Mobility in soil

Phenol, 4,4'-(1-methylethylidene)bis,...: No information available.
 1-Methoxypropan-2-ol: Very high mobility in soil (Koc 0 – 50).
 (2-Methoxymethylethoxy)propanol: Very high mobility in soil (Koc 0 – 50).
 Propan-2-ol: Mobile in soil.

12.5 Results of PBT and vPvB assessment

No sufficient data available for the classification of substances as Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) compounds.

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of contents and container according to Waste Framework Directive (EC) N:o 98/2008, national waste and environmental regulations and local regulations. Dispose of via licenced waste management contractor. Liquid residues must be disposed of as hazardous waste. Classify and label waste containers appropriately. Use, for example, European Waste Catalogue (EWC) n:o 08 01 11*, waste paint and varnish containing organic solvents or other hazardous substances.

Consult licenced waste management/recycling contractor on recycling and reuse of emptied containers.

SECTION 14: TRANSPORT INFORMATION**14.1 UN number**

ADR / RID: Not regulated as dangerous goods.
 IMDG: Not regulated as dangerous goods.
 ICAO / IATA: Not regulated as dangerous goods.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

IMDG marine pollutant: No.

14.6 Special precautions for user

Transport in sealed containers, in upright position and tightly fastened. Make sure that persons transporting the chemical have been trained for emergency and spillage situations.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This product does not contain substances subject to authorisation according to REACH [(EU) N:o 1907/2006], Annex XIV.

This product does not contain restricted substances according to to REACH [(EU) N:o 1907/2006], Annex XVII.

15.2 Chemical safety assessment

This product contains substances for which no chemical safety assessment has been conducted.

SECTION 16: OTHER INFORMATION**Indication of changes to previous version**

Version 2.1, changes to version 2.0 (in Finnish): Information concerning components, composition, and safety instructions has been updated. No changes to hazard classifications.

Hazard statements listed in Sections 2 and 3

H225 – Highly flammable liquid and vapour.

H226 – Flammable liquid and vapour.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness.

H412 - Harmful to aquatic life with long lasting effects.

Training advice for workers

It is recommended that persons handling this product should have at least a basic level training on occupational risk prevention, to facilitate comprehension and interpretation of this safety data sheet.

NOTE

The information provided in this safety data sheet is correct to the best of knowledge of Nanten, or it is based on sources that are considered to be reliable. However, it is the responsibility of the user to be aware of and to take into account all other information with relevance to the safe use of this product and to take the required measures to ensure safety and compliance with current regulations in handling, storing, using and disposing of this product.