

SAFETY DATA SHEET

Nanten HM Bio ESD 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 HM Bio ESD 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)

Skin Corr. 1B	Causes severe skin burns and eye damage.	H314
Skin Sens. 1	May cause an allergic skin reaction.	H317
Eye Dam. 1	Causes serious eye damage.	H318
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.	H412

2.2 Label elements



Signal word: Danger

Hazard Statements:

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:

P260 - Do not breathe dust or mist.

P280 - Wear protective gloves and eye protection/face protection.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

Contains:

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

m-Phenylenebis(methylamine)

Salicylic acid

2.3 Other hazards

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

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
Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	CAS: 38294-64-3 EC: 500-101-4	01-2119965165-33	25 - 50%	Skin Corr. 1B, H314, Skin Sens. 1, H317, Eye Dam. 1, H318, Aquatic Chronic 3, H412
Benzyl alcohol	CAS: 100-51-6 EC: 202-859-9 Ind.: 603-057-00-5	01-2119492630-38-	25 - 50 %	Eye Irrit. 2, H319, Acute Tox. 4, H302, Acute Tox. 4, H332
m-phenylenebis(methylamine)	CAS: 1477-55-0 EC: 216-032-5	01-2119480150-50	5- < 10 %	Acute Tox. 4, H302, Skin Corr. 1B, H314, Skin Sens. 1, H317, Acute Tox. 4, H332, Aquatic Chronic 3, H412
Salicylic acid	CAS: 69-72-7 EC: 200-712-3	01-2119486984-17	2,5 - < 3 %	Repr. 2, H361d, Acute Tox. 4, H302, Eye Dam. 1, H318

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.

Skin contact:

Immediate action is necessary to prevent skin damage.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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:

Immediate action is necessary to prevent eye damage.

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

Ingestion:

IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Get immediate medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

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.

NOT recommended for safety reasons: strong water jet.

5.2 Special hazards arising from the substance or mixture

No other information relevant to safe use of the mixture.

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.

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 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

Ensure good ventilation at workplace. Do not eat, drink or smoke when using this product. Do not breathe dust or mist.

Wash hands cautiously after handling. Take off contaminated clothing. Wash contaminated clothing before reuse.

Persons with asthma or skin sensitisation problems or allergies should avoid contact with this product.

7.2 Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature: +5...+30 °C.

7.3 Specific end use(s)

Recommendation: Follow the 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)

OEL Finland (2018)

	TWA (8 h)	STEL (15 min)
Benzyl alcohol (CAS 100-51-6)	45 mg/m ³ 10 ppm	-
m-phenylenebis(methylamine) (CAS 1477-55-0)	-	0,1 mg/m ³ (ceiling value, skin)

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

OELs in Estonia: Do not apply.

OELs in Sweden: Do not apply.

DNEL (Derived No Effect Level)

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

Route of exposure	Workers			
	Short-term local	Short-term systemic	Long-term local	Long-term systemic
Inhalation	not available	not available	not available	0,493 mg/m ³
Dermal	not available	not available	not available	0,14 mg/kg bw/d
mg/kg bw/d = mg/kg/d = mg per kg of body weight per day				

PNEC (Predicted No Effect Concentration)

Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

Compartment	Concentration
Marine water	0,011 mg/l
Occasional release	0,001 mg/l
Sewage treatment plant	0,111 mg/l

Fresh water sediment	10 mg/l
Marine sediment	4 320 mg/kg
Soil	432 mg/kg
Marine water	864 mg/kg
Oral (secondary exposure)	1 mg/kg

8.2 Exposure controls

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

Avoid getting in eyes or on skin. Wash hands cautiously before breaks and after work. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

Eye and face protection

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

Skin protection

Wear protective clothing. 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: $\geq 0,5$ mm.

Respiratory protection

Wear personal respiratory protection. For short-term or limited exposure: respiratory protection with gas filter.

For intensive or long-term exposure: self-contained breathing apparatus. 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. Colourless or yellowish.
Odour	typical (amine-like)
Odour threshold	no data available
pH	no data available, low solubility in water
Melting point/freezing point	no data available
Initial boiling point and boiling range	no data available
Flash point	101 °C
Evaporation rate	no data available
Flammability (solid, gas)	does not apply, mixture is liquid
Upper/lower flammability or explosive limits	upper: 13,0 vol-%, lower: 1,2 vol-%
Vapour pressure	0,1 hPa (20 °C)
Vapour density	no data available
Density	1,05 g/cm ³ (20 °C)
Solubility(ies)	In water: insoluble or partially soluble.

Partition coefficient: n-octanol/water	In aromatic hydrocarbons, organic solvents: insoluble or partially soluble.
Ignition temperature	no data available
Decomposition temperature	+ 380 °C, not self-igniting
Viscosity	no data available
Explosive properties	120 – 240 mPas (dynamic, 25 °C)
Oxidising properties	no data available, mixture is not explosive
	no data available, no oxidising properties

9.2 Other information

Content of organic solvents: 42,6 %.

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 acids. 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 specific conditions to avoid.

10.5 Incompatible materials

Strong acids.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

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

Mixture: Based on available data, the classification criteria are not met.

Substances:

	Test / meter	Dose / concentration	Species
Benzyl alcohol			
Oral	LD50	1 250 mg/kg	Rat
Inhalation	not available		
Dermal	LD50	2 000 mg/kg	Rabbit
m-phenylenebis(methylamine)			
Oral	LD50	930 mg/kg	Rat
Inhalation	not available		
Dermal	LD50	> 3 100 mg/kg	Rabbit

Skin corrosion/irritation

Mixture: Causes severe skin burns and eye damage.

Serious eye damage/irritation

Mixture: Causes serious eye damage.

Respiratory or skin sensitisation

Mixture: May cause an allergic skin reaction.

Germ cell mutagenicity

Mixture: Based on available data, the classification criteria are not met.

Carcinogenicity

Mixture: Based on available data, the classification criteria are not met.

Reproductive toxicity

Mixture: Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure

Mixture: Based on available data, the classification criteria are not met.

Specific target organ toxicity – repeated exposure

Mixture: Based on available data, the classification criteria are not met.

Aspiration hazard

Mixture: Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Substances

Species	Test/meter	Result	Exposure time
Reaction products of 3-aminomethyl-3,5,5-trimethylcyclohexylamine and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane			
Fish	LC50	70,7 mg/l	96 h
Invertebrates, <i>Daphnia magna</i> (water flea)	LC50	11,1 mg/l	96 h
Algae	EC50	79,4 mg/l	72 h
Benzyl alcohol			
Fish, <i>Leuciscus idus</i> (ide)	LC50	646 mg/l	48 h
Invertebrates, <i>Daphnia magna</i> (water flea)	not available	400 mg/l	not available
Algae	EC50	640 mg/l	96 h
m-phenylenebis(methylamine)			
Fish	LC50	87,6 mg/l	96 h
Invertebrates, <i>Daphnia magna</i> (water flea)	EC 50	15,2 mg/l	48 h
Algae	EC50	20,3 mg/l	72 h

Assessment of the mixture: Harmful to fish. Harmful to aquatic organisms.

12.2	Persistence and degradability
	No further relevant information available.
12.3	Bioaccumulative potential
	No further relevant information available.
12.4	Mobility in soil
	No further relevant information available.
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
	Danger to drinking water if even small quantities leak into the ground.
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: 2289 IMDG: 2289 ICAO / IATA: 2289
14.2	UN proper shipping name
	ADR / RID: Isoforondiamine IMDG: Isoforondiamine ICAO / IATA: Isoforondiamine
14.3	Transport hazard class(es)
	ADR / RID: 8 IMDG: 8 ICAO / IATA: 8
14.4	Packing group
	ADR / RID: III, E, Limited Quantity 5 L IMDG: III, EmS-codes: F-A, S-B, Limited Quantity 5 L ICAO / IATA: III
14.5	Environmental hazards
	IMDG marine pollutant: Not applicable.
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 Mixture does not contain substances subject to authorisation according to REACH [(EU) N:o 1907/2006], Annex XIV.

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

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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

Hazard classification of the Mixture has not been changed. Information concerning substances, composition, and safety instructions has been updated.

Hazard statements listed in Sections 2 and 3

H302 - Harmful if swallowed.

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.

H361d - Suspected of damaging fertility or the unborn child

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.