

SAFETY DATA SHEET
according to 830/2015/EC, 28.05.2015



Revision: 2011-04-21
Update: 2019-07-17

STANDARD EPOXY ADHESIVE

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	STANDARD EPOXY ADHESIVE – COMPONENT A
Article number	E-402
UFI:	GE20-401R-9009-CJQ9

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

identified uses	Component A together with component B possesses versatile application. Used for bonding and filling in gaps and holes almost in all materials.
uses advised against	-

1.3. Details of the supplier of the safety data sheet

Manufacturer	NALMAT-Trzebinia Marian Krzyworzeka ul. Kościuszki 88 32-540 Trzebinia tel. +48 32 612 10 10 fax. +48 32 612 10 66 www.technicqll.pl office@technicqll.pl jakosc@technicqll.pl
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1.4. Emergency telephone number:

+ 48 (032) 711 53 27 during normal office hours - Monday - Friday 6.00am - 2.00pm
112

2. Hazards identification

2.1. Classification of the substance or mixture

Human health hazards:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation
Environmental hazards:	Toxic to aquatic life with long lasting effects
Physical and chemical hazards:	-

2.2. Label elements

Warning symbol:	EUH205- Contains epoxy constituents. May produce an allergic reaction. Contains: bis-[4-(2,3-epoxipropoxy)phenyl]propane (CAS: 1675-54-3)
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WARNING

H315 – Causes skin irritation
H317 – May cause an allergic skin reaction
H319 – Causes serious eye irritation
H411 – Toxic to aquatic life with long lasting effects
P102 – Keep out of reach of children
P280- Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 – IF ON SKIN: wash with plenty of water

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P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P273 – Avoid release to the environment
P501 – Dispose of contents/container to a mine waste dump.

2.3. Other hazards

PBT - lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.
vPvB - lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.

3. Composition/information on ingredients

3.1. Substance: -

3.2. Mixtures

Description	Index No:	CAS	EC	REACH	Content %	Classification
bis-[4-(2,3-epoxipropoxy)phenyl]propane	603-073-00-2	1675-54-3	216-823-5	01-2119456619-26-0013	100	Skin Irrit.2, H315 Skin Sens.1, H317 Eye Irrit.2, H319 Aquatic Chronic 2 H411

4. First aid measures

4.1 Description of first aid measures

After eye contact	In case of contact flush eyes immediately with plenty of water and seek medical attention.
After skin contact	Remove completely the glue with a dry cloth or a paper towel before washing with detergent and water. In case of skin irritation seeks medical attention.
After inhalation	Fresh air and rest if symptoms persist seek medical attention.
After swallowing	Seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Not available

4.3. Indication of any immediate medical attention and special treatment needed

The decision of the method of further procedure should be made by a doctor after exact assessment of victim's conditions.

5. Firefighting measures

5.1. Extinguishing media

All available media: powder, foam, water fog, CO₂; (use highly sprayed water).

Unsuitable extinguishing media: High volume water jet.

5.2. Special hazards arising from the substance or mixture

CO₂, CO, nitrogen oxides and soot.

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5.3. Advice for firefighters

Wear protective equipment. Wear self – contained breathing apparatus.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See point 8.

6.2. Environmental precautions:

Avoid the product will come into soil, ground water and sewage system.

6.3. Methods and material for containment and cleaning up:

In case of spilling wipe scrape or soak up in inert material (sand) and take up mechanically in suitable containers. Disposal in accordance with state and local regulations.

6.4. Reference to other sections

Information concerning safe holding – section / chapter 7.

Information concerning personal protective equipment - section / chapter 8.

Information concerning utilisation - section / chapter 13.

7. Handling and storage

7.1. Precautions for safe handling:

Ensure good ventilation and keep in dry work place. Avoid spilling. Keep away from food. Protect from frost.

7.2. Conditions for safe storage, including any incompatibilities

Store in dry and closed containers between 5°C and 25°C in well ventilated rooms.

7.3. Specific end use(s)

Not available.

8. Exposure controls/personal protection

The personal protection media should fulfil the requirements of instructions of the Cabinet of 31.03.2003 ad the instructions (Dz. U. Nr 80, pos. 725) and the instructions of the Cabinet of 10.10.2005 (Dz. U. Nr 212, pos. 1769)

8.1. Control parameters

Ingredients wit limit values that require monitoring at the work place.

Exposure control	NDS [mg/m ³]	NDSCH [mg/m ³]
-	-	-

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

DNEL value for workers under acute dermal exposure (systemic effects): 8.33 mg / kg bw / day.

DNEL value for workers under acute inhalation exposure (systemic effects): 12.25 mg / m³.

DNEL value for the general population under acute dermal exposure (systemic effects): 3.571 mg / kg bw / day

DNEL value for the general population under acute oral exposure (systemic effects):

0.75 mg / kg bw / day

DNEL value for workers under long-term dermal exposure (systemic effects):

8.33 mg / kg bw / day.

DNEL value for workers under long-term exposure by inhalation (systemic effects):

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12.25 mg / m³

DNEL value for the general population under long-term dermal exposure (systemic effects):

3.571 mg / kg bw / day

DNEL value for the general population under long-term oral exposure (systemic effects): 0.75 mg / kg bw / day

PNEC value - fresh water - 0.006 mg / l

PNEC value - sea water - 0.0006 mg / l

PNEC (intermittent releases) - 0.018 mg / l

PNEC value - freshwater sediment - 0.996 mg / kg dry solids

PNEC value - sediment in sea water - 0.0996 mg / kg dry matter of sediment

PNEC value - soil - 0.196 mg / kg dry matter.

8.2. Exposure controls

Observe the general rules of hygiene and safety. Ensure good ventilation in a work place. During work do not eat, drink and smoke tobacco. Wash hands before breaks and at the end of work. Avoid contacts with eyes.

Breathing equipment:

Work in well ventilated rooms.

Protection of hands and body:

Wear overalls.

Eye protection:

Wear safety glasses.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	high viscous liquid
Colour	light yellow
Density	1,15 – 1,17 g/cm ³
Boiling point	>200°C
Epoxy equivalent	196-208
Flash point	>200°C
Odour	very weak
Auto-ignition point	>500°C
Solubility in water	insoluble
Solubility in ketones and esters	soluble

9.2. Other information

Lack of additional tests.

10. Stability and reactivity

10.1. Reactivity

Not available.

10.2. Chemical stability

No dangerous products of decomposition, when stored and handled correctly.

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10.3. Possibility of hazardous reactions

Reactions with strong acids and strong oxidizing agents.

10.4. Conditions to avoid

No decomposition if stored and used according to recommendations.

10.5. Incompatible materials

Not available.

10.6. Hazardous decomposition products

Do not occur if the product is properly stored.

11. Toxicological information

11.1. Information on toxicological effects

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

Acute toxicity:

The values: LD50 oral and LD50 dermal are greater than 15,000 and 23,000 mg / kg, respectively, for tests carried out before 1982.

More modern studies were conducted at much lower doses without finding out the effects associated with the study. The values: LD50 oral and LD50 dermal are greater than the highest test doses.

LD50 oral > 2000 mg / kg (rat - female)

LD50 oral > 15,000 mg / kg (rat - male / female)

LD50 dermal > 2000 mg / kg (rat - female)

LD50 dermal > 3450 mg / kg (rabbit - female)

Repeated dose toxicity:

- oral administration: NOAEL: 50 mg / kg by weight / day

target organs: digestion: cecum; glandular: adrenal gland; Genitourinary: the kidneys

- dermal exposure: NOAEL: 100 mg / kg / weight / day

In particularly sensitive people, it may cause sensitization by skin contact.

12. Ecological information

12.1. Toxicity

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

PNEC value for the fresh water environment: 0.003 mg / l

PNEC value for the marine water environment: 0.0003 mg / l

PNEC value for the fresh water sediment environment: 0.294 mg / kg p. M.

PNEC value for the environment of sea water sediment: 0.0294 mg / kg p. M.

PNEC value for water - periodic releases: 0.0254 mg / l

PNEC value for soil environment: 0.237 mg / kg p. M.

Waste water treatment plant: 10 mg / l

LC / EC / IC50 fish - <1 mg / l

LC / EC / IC50 crustaceans - <10 mg / l

LC / EC / IC50 algae - <10 mg / l

LC / EC / IC50 activated sludge bacteria - <100 mg / l

12.2. Persistence and degradability

Biodegradation in water: no biodegradation.

Biodegradation in soil: no data available.

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12.3. Bioaccumulative potential

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

No bioaccumulation.

Bioconcentration factor: BCF: 31 l / kg

Partition coefficient n- octanol / water: 3.242 (250C, pH = 7.1)..

12.4. Mobility in soil

May be easily absorbed in soil

12.5. Results of PBT and vPvB assessment

PBT Lack of information concerning fulfilment of the criteria in accordance with Annex XIII of Reach Directive.

vPvB Lack of information concerning fulfilment of the criteria in accordance with Annex XIII of Reach Directive.

12.6. Other adverse effects

Not available.

13. Disposal considerations

13.1. Waste treatment methods

Recommendation concerning the substance: utilize in accordance with obligatory regulations. Do not remove together with communal waste. Store the residues in original containers. Recycling is recommended if possible. Transfer to utilization. Recommendations concerning used up packages: utilize in accordance with obligatory regulations.

Waste code:

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substations.

15 01 10 Packaging containing residues of dangerous substations or contaminated with hem.

EU Legal Instruments

Directives of European Parliament and Council 2006.12-ECI Council

14. Transport information

14.1. UN-Number: 3082

Land transport ADR/RID and GGVSEB 9, LQ=5L

(international/state)

Sea transport IMDG/VSee: 9

Air transport ICAO – TI I IATA – DGR: 9

14.2. Proper shipping name

Material threatening the liquid environment, i.n.o..

14.3. Transport hazard class(es)

9

14.4. Packing group

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14.5. Hazards to environment

Toxic to aquatic life with long lasting effects

14.6. Special precautions for user

During handling with load use personal protection according to point 8.

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

Not applicable

15. Regulatory information

15.1. Legislation related to safety, health and environment protection specific for substance or mixture:

The regulation of European Parliament and Council (EC) no. 1907/2006 of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH), for establishing the European Chemical Agency, changing the directive 1999/45/EC and cancelling the regulation of EEC) no.793/93 and the regulation of Committee(EC) no.1488/94, as well as the directive of council 76/769/EEC and the directives of Committee 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC,

The regulation of European Parliament and Council (EC) no.1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures, changing and cancelling the directives 67/548/EEC and 1999/45/EC and changing the regulation (EC) no.1907/2006

The regulation of Committee (EC) no.790/2009 of 10 August 2009 adopting to the scientific and technological progress the regulation of European Parliament and Council (EC) no 1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures

The regulation 453/2010/EU Council of 10.05.2010 changing the regulation no. 1907/2006/EU of European Parliament and Council concerning the registration, estimation, granting permissions and suitable limits in the range of chemicals (REACH)

The directive of European Parliament and Council no.2006/12/EC of 5 April 2006 concerning waste.

The directive of Council no. 91/689/EEC of 12 December 1991 concerning dangerous waste.

The directive of European Parliament and Council no 94/62/EU. of 20 December 1994 concerning packaging and packaging waste.

15.2. Estimation of chemical safety:

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16. Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Source materials:

Legal provisions cited in point 15

Mixture Manufacturer Safety Data Sheet

Information Bureau for Chemical Substances

According to Art. 9 of Reg. (EC) No. 1272/2008, the bridging principle was used to classify this mixture.

Training recommendations:

Before an employee is allowed to work, he should undergo health and safety training regarding the handling of chemicals. Persons working on transport, involved in the circulation of a hazardous substance / mixture should also be trained in the field of work safety and procedures.

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	STANDARD EPOXY ADHESIVE – COMPONENT B
Article number	E-402
UFI:	GE20-401R-9009-CJQ9

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

identified uses	Component A together with component B has versatile use. It is used for bonding and filling losses almost all materials.
uses advised against	-

1.3. Details of the supplier of the safety data sheet

Manufacturer	NALMAT-Trzebinia Marian Krzyworzeka ul. Kościuszki 88 32-540 Trzebinia tel. +48 32 612 10 10 fax. +48 32 612 10 66 www.technicqll.pl office@technicqll.pl jakosc@technicqll.pl
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1.4. Emergency telephone number:

+ 48 (032) 711 53 27 during normal office hours - Monday - Friday 6.00am - 2.00pm
112

2. Hazards identification

2.1. Classification of the substance or mixture

Human health hazards:	Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Environmental hazards:	Very toxic to aquatic life with long lasting effects.
Physical and chemical hazards:	-

2.2. Label elements

Contains: bis-[4-(2,3-epoxipropoxy)phenyl]propane (CAS: 1675-54-3), Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine trietylenotetraminą (CAS: 186321-96-0), 3-aminopropyldimethylaminą (CAS: 109-55-7), benzyl alcohol (CAS: 100-51-6)
EUH205 - Contains epoxy constituents. May produce an allergic reaction.

Warning symbol:



DANGER

H314 - Causes severe skin burns and eye damage.
H317 – May cause an allergic skin reaction
H410 - Very toxic to aquatic life with long lasting effects.

P102 – Keep out of reach of children
P280- Wear protective gloves/protective clothing/eye protection/face protection

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P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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 or doctor/physician.
P501 – Dispose of contents/container to a mine waste dump.

2.3. Other hazards

PBT - lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.
vPvB - lack of information concerning fulfilment of the criteria in accordance with annex XIII of Reach Directive.

3. Composition/information on ingredients

3.1. Substance: -

3.2. Mixtures

Description	Index No:	CAS	EC	REACH	Content %	Classification
bis-[4-(2,3-epoxipropoxy)phenyl]propane	603-073-00-2	1675-54-3	216-823-5	01-2119456619-26-0013	<15	Skin Irrit.2, H315 Skin Sens.1, H317 Eye Irrit.2, H319 Aquatic Chronic 2 H411
Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine	-	186321-96-0	606-078-8	01-2119983521-35-XXXX	<60	Skin Irrit.2, H315 Skin Sens.1, H317 Eye Dam 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
3-aminopropyldimethylamine	612-061-00-6	109-55-7	203-680-9	01-2119486842-27-XXX	≤5	Flam. Liq.3, H226, Acute Tox.4, H302, Skin Corr. 1B, H314, Skin Sens.1, H317
benzyl alcohol	603-057-00-5	100-51-6	202-859-9	01-2119492630-38-XXXX	<25	Acute Tox.4, H302 Acute Tox.4, H332
2,4,6-tris(dimethylaminomethyl)phenol	603-069-00-0	90-72-2	202-013-9	01-2119560597-27	<5	Acute Tox.4, H302, Skin Irrit. 2 H315 Eye Irrit. 2 H319
3-aminopropyltriethoxysilane	612-108-00-0	919-30-2	213-048-4	01-2119480479-24	<1	Acute Tox. 4 H302 Skin Corr. 1B H314

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4. First aid measures

4.1 Description of first aid measures

After eye contact	In case of contact flush eyes immediately with plenty of water and seek medical attention.
After skin contact	Remove completely the glue with a dry cloth or a paper towel before washing with detergent and water. In case of skin irritation seeks medical attention.
After inhalation	Fresh air and rest if symptoms persist seek medical attention.
After swallowing	Drink two glasses of water. Do not provoke vomiting. Seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Not available

4.3. Indication of any immediate medical attention and special treatment needed

The decision of the method of further procedure should be made by a doctor after exact assessment of victim's conditions.

5. Firefighting measures

5.1. Extinguishing media

All available media: powder, foam, water fog, CO₂; (use highly sprayed water).

Unsuitable extinguishing media: High volume water jet.

5.2. Special hazards arising from the substance or mixture

CO₂, CO, nitrogen oxides and soot.

5.3. Advice for firefighters

Wear protective equipment. Wear self – contained breathing apparatus.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See point 8.

6.2. Environmental precautions:

Avoid the product will come into soil, ground water and sewage system.

6.3. Methods and material for containment and cleaning up:

In case of spilling wipe scrape or soak up in inert material (sand) and take up mechanically in suitable containers. Disposal in accordance with state and local regulations.

6.4. Reference to other sections

Information concerning safe holding – section / chapter 7.
Information concerning personal protective equipment - section / chapter 8.
Information concerning utilisation - section / chapter 13.

7. Handling and storage

7.1. Precautions for safe handling:

Ensure good ventilation and keep in dry work place. Avoid spilling. Keep away from food. Protect from frost.

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7.2. Conditions for safe storage, including any incompatibilities

Store in dry and closed containers between 5°C and 25°C in well ventilated rooms.

7.3. Specific end use(s)

Not available.

8. Exposure controls/personal protection

The personal protection media should meet the requirements of the Directive of 89/686/EC (together with later changes) The employer is obliged to ensure measures of personal protection suitable to activities that are made and fulfilling all quality requirements as well as their cleaning and maintenance.

8.1. Control parameters

Ingredients with limit values that require monitoring at the work place.

Exposure control	NDS [mg/m ³]	NDSCH [mg/m ³]
Benzyl alcohol	240	-

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

DNEL value for workers under acute dermal exposure (systemic effects): 8.33 mg / kg bw / day.

DNEL value for workers under acute inhalation exposure (systemic effects): 12.25 mg / m³.

DNEL value for the general population under acute dermal exposure (systemic effects): 3.571 mg / kg bw / day

DNEL value for the general population under acute oral exposure (systemic effects): 0.75 mg / kg bw / day

DNEL value for workers under long-term dermal exposure (systemic effects): 8.33 mg / kg bw / day.

DNEL value for workers under long-term exposure by inhalation (systemic effects): 12.25 mg / m³

DNEL value for the general population under long-term dermal exposure (systemic effects): 3.571 mg / kg bw/day

DNEL value for the general population under long-term oral exposure (action systemic): 0.75 mg / kg bw / day

PNEC value for sewage treatment plants: 10.0 mg / l - assessment factor: 10

Oral PNEC value: 11 mg / kg food - evaluation factor: 90.

For Benzyl Alcohol:

DNEL (Long-term, skin) - 5.7 mg / kg / bw / day - employees - systemic disorder.

DNEL (Long term, inhalation) - 8.11 mg / m³ - employees - systemic disorder.

DNEL (Short-term, skin) - 47 mg / kg bw / day - local disorder

DNEL (Short term, inhalation) - 450 mg / m³ - employees - systemic disorder.

PNEC value for the fresh water environment: assessment factor: 1 mg / l

PNEC value for the marine water environment: assessment factor: 0.1 mg / l

PNEC value for the sludge environment (fresh water): assessment factor: 5.27 mg / kg dry matter

PNEC value for the sludge environment (marine waters): assessment factor: 0.527 mg / kg dry matter

PNEC value for soil environment: assessment factor: 0.456 mg / kg dry matter

PNEC value for the environment wastewater treatment plant: assessment factor: 39mg / l

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For 3-dimethylaminopropylamine:

DNEL (inhalation) - 1.2 mg / m³ - employees - Long term - systemic and local effects.
PNEC value for the fresh water environment: 0.073 mg / l
PNEC value for the marine water environment: 0.007 mg / l
PNEC value for the sludge environment (fresh water): 0.735 mg / kg dry matter
PNEC value for the sludge environment (marine waters): 0.073 mg / kg dry matter
PNEC value for soil environment: 0.104 mg / kg dry matter
PNEC value for the environment wastewater treatment plant: 69.5 mg / l

Fatty acids, tall oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine

DNEL (Long term - systemic effects, inhalation) - 23.5 mg / m³ - employees
DNEL (Long term - systemic effects, skin) - 3.33 mg / kg - employees
DNEL (Long term - systemic effects, inhalation) - 5.8 mg / m³ - consumers
DNEL (Long term - systemic effects, skin) - 1.67 mg / kg - consumers
DNEL (Long term - systemic effects, oral) - 1.67 mg / kg - consumers
PNEC value for the fresh water environment: assessment factor: 0.186 µg / l
PNEC value for the marine water environment: assessment factor: 0.019 µg / l
PNEC value for the sludge environment (fresh water): assessment factor: 0.005 mg / kg dry matter
PNEC value for the sludge environment (marine waters): assessment factor: 0.005 mg / kg dry matter
PNEC value for soil environment: assessment factor: 0.00089 mg / kg dry matter
PNEC value for the environment wastewater treatment plant: assessment factor: 1.58 mg / l

2,4,6-tris (dimethylaminomethyl) phenol

PNEC value for the marine water environment: assessment factor: 0.0084 mg / l
PNEC value for the environment wastewater treatment plant: assessment factor: 0.2 mg / l

8.2. Exposure controls

Breathing equipment:

Work in well ventilated rooms.

Protection of hands and body:

Wear overalls.

Eye protection:

Wear safety glasses.

Environment exposure control

Do not allow the product to reach sewage system water reservoirs, ground water and soil.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Density	1,17 – 1,18 g/cm ³
Dynamic viscosity	1000-2000 mPas
Boiling point	>135°C
Decomposition temperature	>150°C
Flash point	>76°C
Self-ignition	The product is not self-igniting
Odour	Typical for amines
Solubility in water	Partly soluble
Solubility in ketones and esters	soluble

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9.2. Other information

Lack of additional tests.

10. Stability and reactivity

10.1. Reactivity

Not available.

10.2. Chemical stability

No dangerous products of decomposition, when stored and handled correctly.

10.3. Possibility of hazardous reactions

Reactions with strong acids and strong oxidizing agents.

10.4. Conditions to avoid

No decomposition if stored and used according to recommendations.

10.5. Incompatible materials

Not available.

10.6. Hazardous decomposition products

Do not occur if the product is properly stored. In case of unsuitable storage CO, CO₂, NO_x may be emitted.

11. Toxicological information

11.1. Information on toxicological effects

The vapours of component B may cause irritation to inhalation system and asthmatic reaction when they are breathed through a long time as well as may cause irritation to skin and eyes. Component B is practically harmless because it is used in small quantities.

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

LD50 oral > 2000 mg / kg (rat - female)

LD50 oral > 15,000 mg / kg (rat - male / female)

LD50 dermal > 2000 mg / kg (rat - female)

LD50 dermal > 3450 mg / kg (rabbit - female)

For 2,4,6-tris (dimethylaminomethyl) phenol:

LD50 - Oral (Rat) - 1378 mg / kg - 1968 mg / kg

LD50 - Skin (Rat) - 1280 mg / kg

For Benzyl Alcohol:

LD50 - Skin (Rabbit) - 2000 mg / kg

LD50 - Oral (Rat) - 1230 mg / kg

For 3-dimethylaminopropylamine:

Acute toxicity: LD50 - Oral (Rat) - 410 mg / kg (OECD 401)

Acute toxicity: LD50 - Skin (Rabbit) - 2139 mg / kg (OECD 402)

Acute toxicity: LC50 - Inhalation (Rat) > 4.3 mg / l / 4h

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12. Ecological information

12.1. Toxicity

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

PNEC value for the fresh water environment: 0.006 mg / l [Assessment factor: 50]

PNEC value for the marine water environment: 0.0006 mg / l [Assessment factor: 500]

PNEC value for the fresh water sediment environment: 0.996 [Assessment factor: log Kow = 3.84] mg / kg

PNEC value for the seawater sediment environment: 0.996 mg / kg [Assessment factor: log Kow = 3.84]

PNEC value for water - periodic releases: 0.018 mg / l [Assessment factor: 100]

PNEC value for soil environment: 0.196 mg / kg [Assessment factor: log Kow = 3.84]

For 2,4,6-tris (dimethylaminomethyl) phenol:

LC50 - Fish - 153 mg / L / 96 h

For 3-dimethylaminopropylamine:

Acute toxicity to fish: LC50 122 mg / l / 96h (Luecidus idus)

Acute toxicity to daphnia: EC50 59.5 mg / l / 48h (Daphnia magna)

Acute toxicity to aquatic plants: EC50 53,5 mg / l / 72h (Scenedesmus subspicatus)

Acute toxicity to bacteria (activated sludge): EC50 94.5 mg / l / 17h (Pseudomonas putida).

12.2. Persistence and degradability

For 2,4,6-tris (dimethylaminomethyl) phenol:

Degradability: 4%

12.3. Bioaccumulative potential

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

No bioaccumulation.

Bioconcentration factor: BCF: 31 l / kg

Partition coefficient n- octanol / water: 3.242 (250C, pH = 7.1).

For 2,4,6-tris (dimethylaminomethyl) phenol:

LogKow = 0.77

For Benzyl Alcohol:

LogPow = 1.1

Bioaccumulative potential – low

12.4. Mobility in soil

May be easily absorbed in soil

12.5. Results of PBT and vPvB assessment

PBT Lack of information concerning fulfilment of criteria in accordance with Annex XIII of Reach Directive.

vPvB Lack of information concerning fulfilment of criteria in accordance with Annex XIII of Reach Directive.

12.6. Other adverse effects

Component B: Do not allow to reach sewage system, ground water, water basins and soil.

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13. Disposal considerations

13.1. Waste treatment methods

Both components are distributed in one package in very small amounts. One package contains no more than 100g each of them. Such small amounts are usually used up completely in accordance with their designation. Waste material is undergone destroying in accordance with the state and local regulations.

Waste code:

08 04 09 Waste adhesives and sealants containing organic solvents or other dangerous substations.
15 01 10 Packaging containing residues of dangerous substations or contaminated with them.

14. Transport information

14.1. UN-Number: 3082

Land transport ADR/RID and GGVSEB (international/state)	9, LQ=5L
Sea transport IMDG/See:	9
Air transport ICAO – TI IATA – DGR:	9

14.2. Proper shipping name

Material threatening the liquid environment, i.n.o..

14.3. Transport hazard class(es)

9

14.4. Packing group

III

14.5. Hazards to environment

Harmful to aquatic life with long lasting effects

14.6. Special precautions for user

During handling with load use personal protection according to point 8.

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

Not applicable

15. Regulatory information

15.1. Legislation related to safety, health and environment protection specific for substance or mixture:

The regulation of European Parliament and Council (EC) no. 1907/2006 of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals (REACH), for establishing the European Chemical Agency, changing the directive 1999/45/EC and cancelling the regulation of EEC) no.793/93 and the regulation of Committee(EC) no.1488/94, as well as the directive of council 76/769/EEC and the directives of Committee 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC,
The regulation of European Parliament and Council (EC) no.1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures, changing and cancelling the directives 67/548/EEC and 1999/45/EC and changing the regulation (EC) no.1907/2006

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Revision: 2011-04-21
Update: 2019-07-17

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The regulation of Committee (EC) no.790/2009 of 10 August 2009 adopting to the scientific and technological progress the regulation of European Parliament and Council (EC) no 1272/2008 of 16 December 2008 concerning the classification, labelling and packing the substances and mixtures

The regulation 453/2010/EU Council of 10.05.2010 changing the regulation no. 1907/2006/EU of European Parliament and Council concerning the registration, estimation, granting permissions and suitable limits in the range of chemicals (REACH)

The directive of European Parliament and Council no.2006/12/EC of 5 April 2006 concerning waste.

The directive of Council no. 91/689/EEC of 12 December 1991 concerning dangerous waste.

The directive of European Parliament and Council no 94/62/EU. of 20 December 1994 concerning packaging and packaging waste.

15.2. Estimation of chemical safety:

-

16. Other information

Explanation of symbols in the 3 point of Safety Data Sheet:

- H226 – Flammable liquid and vapour
- H302 – Harmful if swallowed
- H314 – Causes severe skin burns and eye damage
- H315 – Causes skin irritation
- H317 – May cause an allergic skin reaction
- H319 – Causes serious eye irritation
- H332 – Harmful if inhaled
- H411- Toxic to aquatic life with long lasting effects

Training recommendations:

Before an employee is allowed to work, he should undergo health and safety training regarding the handling of chemicals. Persons working on transport, involved in the circulation of a hazardous substance / mixture should also be trained in the field of work safety and procedures.

Data Sources:

This Safety Data Sheet has been developed on the basis of Material Safety Data Sheets supplied by the Manufacturers and / or online databases and applicable regulations on chemical substances and preparations.

According to Art. 9 of Reg. (EC) No. 1272/2008, a calculation rule was used to classify this mixture.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

MSDS developed by NALMAT Trzebinia