

Extra Fast Eco Epoxy Activator



Safety Data Sheet

According to 1907/2006/EC (REACH) and 1272/2008/EC (CLP)

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

1.1. Product identifier

Material Name: Extra Fast Eco Epoxy Activator
Product code: PME_AX1

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Liquid curing agent for epoxy resin

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Professional Epoxy Coatings
Old Cooperage Yard
Gatebeck
KENDAL
LA8 0HW
UNITED KINGDOM

Telephone: +44 (0)1539 267 171
Email: info@pecepoxy.co.uk

1.4. Emergency telephone number

+44 1865 407 333 – English speaking (24 hours, 7 days)

2. Hazards identification

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 (CLP).

Serious eye damage, category 1.
Reproductive toxicity, category 2.
Acute aquatic hazard, category 2.
Chronic aquatic hazard, category 2.
Skin corrosion, category 1A.
Skin sensitisation, category 1.
Respiratory sensitisation, category 1.
Acute toxicity (oral), category 4.
Acute toxicity (dermal), category 4.
Acute toxicity (inhalation), category 4.
Specific target organ toxicity – repeated exposure, category 2.
Germ cell mutagenicity, category 2.

Hazard-determining components of labelling:

Piperazine
1-Piperazineethanamine

Isophorone diamine
Benzyl Alcohol
1,3-Cyclohexanedimethanamine
1-Nonene
Phenol
Nonyl phenol
Disodium 2,2'-([1,1'-biphenyl]-4,4'-diyldivynylene)bis(benzenesulphonate)

2.2. Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H341 Suspected of causing genetic defects.
H361 Suspected of damaging fertility or the unborn child.
H401 Toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P285 In case of inadequate ventilation wear respiratory protection.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
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 CENTRE or doctor/physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before reuse.
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison centre or doctor/physician.
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTRE or doctor/physician.
P302+P352+P312 If on skin: Wash with soap and water. Call a poison centre or doctor/physician if you feel unwell.
P308+P313 If exposed or concerned: Get medical advice/attention.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents and container as instructed in Section 13.

2.3. Other hazards

None known

3. Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Identification	Name	Classification according to Regulation (EC) No. 1278/2008 (CLP)	Weight %
CAS number: 100-51-6	Benzyl Alcohol	Acute Tox. 4; H302 Acute Tox. 4; H332	25-28
CAS number: 2855-13-2	Isophorone diamine	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	25-28
CAS number: 2579-20-6	1,3-Cyclohexanedimethanamine	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1A; H314 Aquatic Chronic 3; H412	24-30
CAS number: 27344-41-8	Disodium 2,2'-([1,1'-biphenyl]-4,4'-diyldivynylene) bis(benzenesulphonate)	Eye Irrit. 2; H319	<0.1
CAS number: 102-71-6	2,2',2''-Nitrilotriethanol	Not classified	<5
CAS number: 110-85-0	Piperazine	Resp. Sens. 1; H334 Skin Sens. 1; H317 Skin Corr. 1B; H314 Repr. 2; H361	<2
CAS number: 140-31-8	1-Piperazineethanamine	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	<1
CAS number: 84852-15-3	Nonyl phenol	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Repr. 2; H361 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	8-20
CAS number: 108-95-2	Phenol	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Corr. 1B; H314 Stot RE 2; H373 Muta. 2; H341	<0.5
CAS number: 124-11-8	1-Nonene	Asp. Tox. 1; H304 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Stot SE 3; H335 Flam. Liq. 3; H226	<0.5

Additional information: None

Full Text of H and EUH statements: See section 16

4. First aid measures

4.1. Description of first aid measures

General information: None.

After inhalation:

Move exposed individual to fresh air.
Loosen clothing as necessary and position individual in a comfortable position.
Maintain an unobstructed airway.
Immediately call a POISON CONTROL CENTRE or seek medical attention.

After skin contact:

Immediately remove all contaminated clothing.
Wash affected area with soap and water.
Immediately call a POISON CONTROL CENTRE or seek medical attention.

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes.
Remove contact lens(es) if able to do so during rinsing.
Immediately call a POISON CONTROL CENTRE or seek medical attention.

After swallowing:

Immediately call a POISON CONTROL CENTRE or seek medical attention.
Do not induce vomiting.
Rinse mouth and then drink plenty of water.

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

None

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

No additional information.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.
Unsuitable extinguishing media: Not determined or not applicable.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours.

5.3. Advice for firefighters

Protective equipment:

Wear protective eye wear, gloves and clothing.
Refer to Section 8.
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion.
Shut off sources of ignition.
Carbon monoxide and carbon dioxide may form upon combustion.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Ensure air handling systems are operational.

Wear protective eye wear, gloves and clothing.

6.2. Environmental precautions

Should not be released into the environment.
Prevent from reaching drains, sewer or waterway.

6.3. Methods and material for containment and cleaning up

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders).
Dispose of contents / container in accordance with local regulations.

6.4. Reference to other sections

None

7. Handling and storage

7.1. Precautions for safe handling

Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapour.
Use only with adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated area.
Store away from foodstuffs.

7.3. Specific end use(s)

No additional information.

8. Exposure controls/personal protection



8.1. Control parameters

Substance	CAS Number	Occupational Exposure Limit
2,2',2''-Nitrilotriethanol	102-71-6	ACGIH TLV TWA: 5.0 mg/m ³
Piperazine	110-85-0	ACGIH TLV TWA: 0.03 mg/m ³ (Inhalable fraction and vapour)
Benzyl Alcohol	100-51-6	WEEL TWA: 10.0 ppm.
Phenol	108-95-2	ACGIH TWA: 5.0 ppm.
		NIOSH TWA: 5.0 ppm.
		NIOSH C: 15.60 ppm.
		OSHA TWA: 5.0 ppm.

8.2. Exposure controls

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour and mists below the applicable workplace exposure limits (Occupational Exposure Limits – OELs) indicated above.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance.

Eye protection:

Safety goggles or glasses, or appropriate eye protection.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions.

See section 6 for information on accidental release measures.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance (physical state, colour)	Amber coloured viscous liquid	Explosion limit lower	No data available
Odour	Amine	Explosion limit upper	No data available
Odour threshold	No data available	Vapour pressure	No data available
pH	No data available	Vapour density	No data available
Melting/Freezing point	No data available	Relative density (water = 1)	No data available
Boiling point/range	No data available	Solubilities	No data available
Flash point (closed cup)	> 100°C (> 212°F)	Partition coefficient (n-octanol/water)	No data available
Evaporation rate	No data available	Auto/Self-ignition temperature	> 200°C (> 392°F)
Flammability (solid, gaseous)	No data available	Decomposition temperature	No data available
Density	0.97 – 1.2 g/cm ³ @ 20°C	Dynamic viscosity	No data available
		Kinematic viscosity	No data available

10. Stability and reactivity

10.1. Reactivity

Does not react under normal conditions of use and storage.

10.2. Chemical stability

Stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

None under normal conditions of use and storage.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

Oral:

1-Piperazineethanamine: LD50 Chicken 1,500 mg/kg.

Isophorone diamine: LD50 Rat 1,030 mg/kg.

Benzyl Alcohol: LD50 Rat 1,230 mg/kg.

1,3-Cyclohexanedimethanamine: LD50 Rat 880 mg/kg.

Phenol: LD50 Mouse 270 mg/kg.

Nonyl phenol: LD50 Rat 1,300 mg/kg.

Inhalation:

Benzyl Alcohol: LD50 Rat >4,178 mg/m³.

Dermal:

Phenol: LD50 Rabbit 630 mg/kg.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Piperazine: Causes skin damage.

1-Piperazineethanamine: Corrosive to the skin.

Isophorone diamine: Corrosive to the skin.

1,3-Cyclohexanedimethanamine: Corrosive to the skin.

1-Nonene: Irritating to the skin.

Phenol: Corrosive to the skin.

Nonyl phenol: Corrosive to the skin.

Serious eye damage/irritation

Causes serious eye damage.

1-Nonene: Irritating effect on the eyes.

Nonyl phenol: Corrosive to the eyes.

Disodium 2,2'-([1,1'-biphenyl]-4,4'-diyldivinylene)bis(benzenesulphonate): Irritating effect on the eyes.

Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Piperazine: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

1-Piperazineethanamine: Sensitisation possible through skin contact.

Isophorone diamine: Sensitisation possible through skin contact.

Carcinogenicity

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

IARC (International Agency for Research on Cancer):

Name	Classification
2,2',2''-Nitrilotriethanol	Group 3 – Not classifiable as to its carcinogenicity to humans.

NTP (National Toxicology Program): None of the ingredients are listed.

Germ cell mutagenicity

Suspected of causing genetic defects.

Phenol: In vitro tests showed mutagenic effects.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Piperazine: Suspected of damaging fertility or the unborn child.

Nonyl phenol: Suspected human reproductive toxicant.

Specific target organ toxicity (single exposure)

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

1-Nonene: Component affects the respiratory system.

Phenol: may cause damage to organs through prolonged or repeated exposure.

Specific target organ toxicity (repeated exposure)

May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity: No information available.

Additional toxicological information: No additional information.

12. Ecological information**12.1. Toxicity**

Toxic to aquatic life.

Name	Result
Isophorone diamine	LC50 – Daphnia magna (Water flea) – 17.4 mg/L – 48 h.
1,3-Cyclohexanedimethanamine	Static test EC50 – Daphnia magna (Water flea) – 33.1 mg/L – 48 h.
	Static test EC50 – Pseudokirchneriella subcapitata (green algae) – 56.7 mg/L – 72 h.
Nonyl phenol	Flow-through test LC50 – Lepomis macrochirus – 0.209 mg/l – 96 h.
	Semi-static test EC50 – Daphnia magna (Water flea) – 0.0844 mg/l – 48 h.
	Static test EC50 – Selenastrum capricornutum (green algae) – 0.33 mg/l – 72 h.

12.2. Persistence and degradability

No additional information.

12.3. Bioaccumulative potential

No additional information.

12.4. Mobility in soil

No additional information.

12.5. Results of PBT and vPvB assessment

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

12.6. Other adverse effects:



No additional information.

13. Disposal considerations**13.1. Waste treatment methods****Relevant information:**



It is the responsibility of the waste generator to properly characterise all waste materials according to applicable regulatory entities. (US 40CFR262.11).

14. Transport information



International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

14.1. UN number	2735	
14.2. UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (Isophorone diamine)	
14.3. UN transport hazard class(es)	8	 
14.4. Packing group	III	
14.5. Environmental hazards	Marine Pollutant	
14.6. Special precautions for user	None	
Classification code	80	
Transport category	3	
Tunnel restriction code	E	
Excepted quantities	30mL inner pckg; 1L outer pckg	
Limited quantity	5L	



International Carriage of Dangerous Goods by Inland Waterways (ADN)

14.1. UN number	2735	
14.2. UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (Isophorone diamine)	
14.3. UN transport hazard class(es)	8	 
14.4. Packing group	III	
14.5. Environmental hazards	Marine Pollutant	
14.6. Special precautions for user	None	
Excepted quantities	30mL inner pckg; 1L outer pckg	
Limited quantity	5L	

International Maritime Dangerous Goods (IMDG)

14.1. UN number	2735	
14.2. UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (Isophorone diamine)	
14.3. UN transport hazard class(es)	8	 
14.4. Packing group	III	
14.5. Environmental hazards	Marine Pollutant	
14.6. Special precautions for user	None	
EmS number	F-A, S-B	
Excepted quantities	30mL inner pckg; 1L outer pckg	
Limited quantity	5L	

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

14.1. UN number	2735	
14.2. UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (Isophorone diamine)	
14.3. UN transport hazard class(es)	8	 
14.4. Packing group	III	
14.5. Environmental hazards	Marine Pollutant	
14.6. Special precautions for user	None	
Exempted quantities	30mL inner pckg; 1L outer pckg	
Limited quantity	5L	

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

Not applicable

15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****United States**

SARA Section 313 toxic chemicals:

108-95-2	Phenol	Listed
84852-15-3	Nonyl phenol	Listed

European Union

Inventory listing (EINECS): Not determined.
 REACH SVHC candidate list: Not determined.
 REACH SVHC Authorisations: Not determined.
 REACH Restriction: Not determined.
 Water hazard class (WGK): Not determined.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other information

Abbreviations and Acronyms: None

Summary of classification in section 3:

Acute Tox. 4; H302	Acute toxicity (oral), category 4
Acute Tox. 4; H332	Acute toxicity (inhalation), category 4
Acute Tox. 4; H312	Acute toxicity (dermal), category 4
Skin Sens. 1; H317	Skin sensitisation, category 1
Skin Corr. 1B; H314	Skin corrosion, category 1B
Aquatic Chronic 3; H412	Chronic aquatic hazard, category 3
Skin Corr. 1A; H314	Skin corrosion, category 1A
Eye Irrit. 2; H319	Eye irritation, category 2A
Resp. Sens. 1; H334	Respiratory sensitisation, category 1
Repr. 2; H361	Reproductive toxicity, category 2

Eye Dam. 1; H318	Serious eye damage, category 1
Aquatic Acute 1; H400	Acute aquatic hazard, category 1
Aquatic Chronic 1; H410	Chronic aquatic hazard, category 1
Acute Tox. 3; H301	Acute toxicity (oral), category 3
Acute Tox. 3; H311	Acute toxicity (dermal), category 3
Acute Tox. 3; H331	Acute toxicity (inhalation), category 3
Stot RE 2; H373	Specific target organ toxicity – repeated exposure, category 2
Muta. 2; H341	Germ cell mutagenicity, category 2
Asp. Tox. 1; H304	Aspiration hazard, category 1
Skin Irrit. 2; H315	Skin irritation, category 2
Stot SE; H335	Specific target organ toxicity – single exposure, category 3, respiratory irritation
Flam. Liq. 3; H226	Flammable liquids, category 3

Summary of hazard statements in section 3:

H302	Harmful if swallowed
H332	Harmful if inhaled
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H314	Causes severe skin burns and eye damage
H412	Harmful to aquatic life with long lasting effects
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361	Suspected of damaging fertility or the unborn child
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H341	Suspected of causing genetic defects
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H335	May cause respiratory irritation
H226	Flammable liquid and vapour

The information and recommendations contained herein are based upon data believed to be correct. However, as much of the information has been received from sources outside our company, we cannot guarantee its accuracy or completeness. Health and safety precautions contained within this data sheet may not be adequate for all individuals and /or situations. It is the user's obligation to evaluate and use this data in order to comply with all applicable laws and regulations. Additionally, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.