Laminating 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: Laminating Epoxy Activator
Product code: PEC_A3

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.
Skin corrosion, category 1A.
Skin sensitisation, category 1.
Acute toxicity (oral), category 4.
Acute toxicity (inhalation), category 4.
Specific target organ toxicity – single exposure, category 3, respiratory irritation.
Reproductive toxicity, category 2.
Chronic aquatic hazard, category 3.

Hazard-determining components of labelling:

Isophorone diamine
1,3-Cyclohexanedimethanamine
Benzyl Alcohol
4-tert-Butylphenol

2.2. Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.
H412 Harmful 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.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
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.
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 If on skin: Wash with soap and water.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P308+P313 If exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P403+P233 Store in a well ventilated place. Keep container tightly closed.
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	30-50

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	15-25
CAS number: 2579-20-6	1,3-Cyclohexanedimethanamine	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1A; H314 Aquatic Chronic 3; H412	15-25
CAS number: 98-54-4	4-tert-Butylphenol	Skin Irrit. 2; H315 Eye Dam. 1; H318 Repr. 2; H361	5-15

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

100-51-6, Benzyl Alcohol, WEEL TWA 10.0 ppm.

8.2. Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

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)	Yellow liquid
Odour	Amine
Odour threshold	No data available
pH	~ 13 (solution 100g/L at 20°C)
Melting/Freezing point	No data available
Boiling point/range	> 200°C (> 392°F)
Flash point (closed cup)	> 200°C (> 392°F)
Evaporation rate	No data available
Flammability (solid, gaseous)	No data available
Density	No data available

Explosion limit lower	No data available
Explosion limit upper	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (water = 1)	1.06 g/cm³ @ 20°C
Solubilities	No data available
Partition coefficient (n-octanol/water)	No data available
Auto/Self-ignition temperature	No data available
Decomposition temperature	No data available
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 if inhaled.

Oral:
Isophorone diamine: LD50 Rat 1,030 mg/kg.
1,3-Cyclohexanedimethanamine: LD50 Rat 880 mg/kg.
Benzyl Alcohol: LD50 Rat 1,230 mg/kg.

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

Skin corrosion/irritation

Causes severe skin burns and eye damage.
1,3-Cyclohexanedimethanamine: Corrosive to the skin.
4-tert-Butylphenol: Irritating to the skin.
Isophorone diamine: Corrosive to the skin.

Serious eye damage/irritation

Causes serious eye damage.
4-tert-Butylphenol: Corrosive to the eyes.

Respiratory or skin sensitisation

May cause an allergic skin reaction.
Isophorone diamine: Sensitisation possible through skin contact.

Carcinogenicity

IARC (International Agency for Research on Cancer): None of the ingredients are listed.
NTP (National Toxicology Program): None of the ingredients are listed.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.
4-tert-Butylphenol: Suspected human reproductive toxicant.

STOT-single and repeated exposure

May cause respiratory irritation.

Aspiration toxicity: No information available.
Additional toxicological information: No additional information.

12. Ecological information

12.1. Toxicity

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.
1,3-Cyclohexanedimethanamine	Static test EC50 – Pseudokirchneriella subcapitata (green algae) – 56.7 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: No additional information.
vPvB assessment: No additional information.

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	None
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	None
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	None
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	None
14.6. Special precautions for user	None
Excepted 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: Not determined.

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
Skin Irrit. 2; H315	Skin irritation, category 2
Eye Dam. 1; H318	Serious eye damage, category 1
Repr. 2; H361	Reproductive toxicity, category 2

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
H315	Causes skin irritation
H318	Causes serious eye damage
H361	Suspected of damaging fertility or the unborn child

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.