

Laminating Epoxy Resin



**Professional
EPOXY COATINGS**

Safety Data Sheet

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

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

1.1. Product identifier

Material Name: Laminating Epoxy Resin
Product code: PEC_R2

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 thermoset resin for composite manufacture

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, 29CFR1910/1200 and GHS Rev. 3 and amendments.

Eye irritation, category 2A.
Skin irritation, category 2.
Skin sensitisation, category 1.
Acute aquatic hazard, category 2.
Chronic aquatic hazard, category 2.

Hazard-determining components of labelling:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran
Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.
Ethyl 4-[[[(methylphenylamino)methylene]amino]benzoate
Benzyl Alcohol

2.2. Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H401 Toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash skin thoroughly after handling.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 If on skin: Wash with soap and water.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P391 Collect spillage.
 P501 Dispose of contents and container as instructed in Section 13.

2.3. Other hazards

None known

Information concerning particular hazards for humans and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

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	<4
CAS number: 57834-33-0	Ethyl 4- [[[(methylphenylamino)methyl]amino]benzoate	Acute Tox. 4; H302	<2
CAS number: 25068-38-6	Phenol, 4,4'-(1-	Skin Sens. 1; H317	85-95

	methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	
CAS number: 68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Skin Sens. 1; H317 Skin Irrit. 2; H315	5-10

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:

Loosen clothing as necessary and position individual in a comfortable position.
Maintain an unobstructed airway.
Get medical advice/attention if you feel unwell.

After skin contact:

Wash affected area with soap and water.
Seek medical attention if symptoms develop or persist.

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.
Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth and then drink plenty of water.
Do not induce vomiting.
Get medical advice/attention if you feel unwell.

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: Do not use water as an extinguisher.

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.

5.4. Additional information

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

Occupational Exposure limit values:

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

Biological limit value:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Not determined or not applicable.

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.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.
Select glove material based on rates of diffusion and degradation.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

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)	Clear/pale yellow liquid
Odour	Slight
Odour threshold	No data available
pH	No data available
Melting/Freezing point	No data available
Boiling point/range	No data available
Flash point (closed cup)	> 200°C (> 392°F)
Evaporation rate	No data available
Flammability (solid, gaseous)	No data available
Density	1100 - 1200 kg/m ³ @ 25°C

Explosion limit lower	No data available
Explosion limit upper	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubilities	Negligible.
Partition coefficient (n-octanol/water)	No data available
Auto/Self-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity	8 - 13 Pa·s @ 25°C
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**

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

Product data: No data available.

Substance data:

Name	Route	Result
Benzyl Alcohol	oral	LD50 - Rat - 1,230 mg/kg
	inhalation	LD50 - Rat - > 4,173 mg/m ³

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Irritating to the skin.
Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Irritating to the skin.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Irritating effect on the eyes.

Respiratory or skin sensitisation

Assessment: May cause an allergic skin reaction

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Sensitisation possible through skin contact.
Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Sensitisation possible through skin contact.

Carcinogenicity

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

Product data: No data available.

Substance data: No data available.

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

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

Germ cell mutagenicity

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

Product data: No data available.

Substance data: No data available.

Reproductive Toxicity

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

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

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

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

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

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

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

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

12. Ecological information**12.1. Toxicity****Acute (short-term) toxicity**

Assessment: Toxic to aquatic life

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	EC50 - Scenedesmus capricornutum - 9 mg/L - 48 h

Chronic (long-term) toxicity

Assessment: Toxic to aquatic life with long lasting effects.

Product data: No data available.

Substance data: No data available.

12.2. Persistence and degradability

Product data: No data available.

Substance data: No data available.

12.3. Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

12.4. Mobility in soil

Product data: No data available.

Substance data: No data available.

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 data available.



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**United States Transportation of dangerous goods (49 CFR DOT)**

14.1. UN number	3082
14.2. UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
14.3. UN transport hazard class(es)	9  
14.4. Packing group	III
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	The DOT regulations above apply to Non-Bulk shipments only. Product is not regulated for air, rail and motor vehicle packages less than 119 gal (450 L). Product is regulated by vessel. 49 CFR / Highway, Rail & US Air Transport: Not Regulated per 49 CFR Regulation 171.4 Paragraph C and 172.101 Appendix B.



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

14.1. UN number	3082
14.2. UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
14.3. UN transport hazard class(es)	9  
14.4. Packing group	III
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None
Classification code	90
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	3082
14.2. UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
14.3. UN transport hazard class(es)	9  
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	3082
14.2. UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
14.3. UN transport hazard class(es)	9  
14.4. Packing group	III
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None
EmS number	F-A, S-F
Excepted quantities	30mL inner pckg; 1L outer pckg
Limited quantity	5L

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

14.1. UN number	3082
14.2. UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
14.3. UN transport hazard class(es)	9  
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	30 kg G

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

Bulk Name	None
Ship type	None
Pollution category	None

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

United States regulations

Inventory listing (TSCA):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[[(methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Significant New Use Rule (TSCA Section 5): Not listed

Export notification under TSCA Section 12(b): Not listed

SARA Section 311/312 (Specific toxic chemical listings):

Acute	Chronic	Fire	Pressure	Reactive
Yes	No	No	No	No

SARA Section 302 extremely hazardous substances: Not listed

SARA Section 313 (specific toxic chemical listings): Not listed

CERCLA: Not listed

RCRA: Not listed

Section 112(r) of the Clean Air Act (CAA): Not listed

Massachusetts Right to Know: Not listed

New Jersey Right to Know: Not listed

New York Right to Know: Not listed

Pennsylvania Right to Know: Not listed

California Proposition 65: Not listed

European regulations

Inventory listing (EINECS): Not determined.

REACH SVHC candidate list: Not listed

REACH SVHC Authorisations: Not listed

REACH Restriction: Not listed

Water hazard class (WGK): Not determined.

Canada regulations

Domestic substances list (DSL):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[[(methylphenylamino)methylene]amino]benzoate	Not Listed
100-51-6	Benzyl Alcohol	Listed

Non-domestic substances list (NDSL): Not listed

China regulations

Inventory of Existing Chemical Substances in China (IECSC):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[[(methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Inventory of Prohibited Chemicals: Not listed

Catalog of Hazardous Chemicals: Not listed

List of Toxic Chemicals Restricted to be Imported and Export in China: Not listed

List of Hazardous Chemicals for Priority Management - SAWS: Not listed

The Catalog of Priority Hazardous Chemicals for Environment Management (PHCs)-MEP: Not listed

Australia regulations

Australian Inventory of Chemical Substances (AICS):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Japan regulations

Existing and New Chemical Substances (ENCS):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Industrial Safety and Health Law (ISHL): Not determined.

Korea regulations

Korea Existing Chemicals List (KECL):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

New Zealand regulations

New Zealand Inventory of Chemicals (NZIoC):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Philippine regulations

Philippine Inventory of Chemicals and Chemical Substances (PICCS):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

Taiwan regulations

Taiwan Chemical Substance Inventory (TCSI):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
100-51-6	Benzyl Alcohol	Listed

15.2. Chemical Safety Assessment

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

16. Other information

Indication of changes: Not applicable.

Abbreviations and Acronyms: None

Summary of classification in section 3:

Acute Tox. 4: H302	Acute toxicity (oral), category 4
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Acute Tox. 4; H332	Acute toxicity (inhalation), category 4
Skin Sens. 1; H317	Skin sensitisation, category 1
Skin Irrit. 2; H315	Skin irritation, category 2
Eye Irrit. 2; H319	Eye irritation, category 2A
Aquatic Chronic 2; H411	Chronic aquatic hazard, category 2

Summary of hazard statements in section 3:

H302	Harmful if swallowed
H332	Harmful if inhaled
H317	May cause an allergic skin reaction
H315	Causes skin irritation
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects

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.