Slow Eco Epoxy Activator

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: Slow Eco Epoxy Activator
Product code: PME_AS2

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 (0)1539 267 171 – English speaking (UK office hours)

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.

Serious eye damage, category 1.
Skin corrosion, category 1A.
Skin sensitisation, category 1.
Acute toxicity (oral), category 4.
Chronic aquatic hazard, category 3.

Hazard-determining components of labelling:

Benzyl alcohol
Isophorondiamine
2,2,4(or 2,4,4)-trimethyl-1,6-hexanediamine

2.2. Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H302 Harmful if swallowed.
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 vapours.
P273 Avoid release to the environment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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 CENTRE/doctor.

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	Oral Acute Tox. 4; H302 Inhal. Acute Tox. 4; H332	40-50
CAS number: 2855-13-2	Isophorondiamine	Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412 Oral Acute Tox. 4; H302 Dermal Acute Tox. 4; H312	40-50
CAS number: 25513-64-8	2,2,4(or 2,4,4)-trimethyl-1,6-hexanediamine	Oral Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1; H317	7-10

Additional information: None

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.
If symptoms develop or persist, 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.
Protect uninjured eye.

After swallowing:

Immediately call a POISON CONTROL CENTRE or seek medical attention.
Rinse mouth.
Give nothing to eat or drink.
Do not induce vomiting.

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: Spray water, Carbon Dioxide (CO_2).
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

Use suitable breathing apparatus.
Move undamaged containers away from immediate hazard area if it can be done safely.
Collect contaminated fire extinguishing water separately – this must not be discharged into drains.

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.
Avoid contact with skin and eyes.
Remove contaminated clothing before entering eating areas.

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:

Not determined or not applicable.

Biological limit value:

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

Derived No Effect Level (DNEL):

Identification	Exposure Type	Professional Worker	Consumer
CAS: 100-51-6	Dermal, Short Term	47 mg/kg	28.5 mg/kg
	Dermal, Long Term	9.5 mg/kg	5.7 mg/kg
	Inhalation, Short Term	450 mg/m^3	40.55 mg/m^3
	Inhalation, Long Term	90 mg/m^3	8.11 mg/m^3
	Oral, Short Term		25 mg/kg
	Oral, Long Term		5 mg/kg
CAS: 2855-13-2	Oral, Long Term		0.526 mg/kg
CAS: 25513-64-8	Oral, Long Term		0.05 mg/kg

Predicted No Effect Concentration (PNEC):

Identification	Target	Value
CAS: 100-51-6	Fresh water	1 mg/l
	Marine water	0.1 mg/l
	Fresh water sediments	5.7 mg/kg
	Marine water sediments	0.527 mg/kg
	Plant wastewater treatment	39 mg/l
	Soil (agricultural)	0.456 mg/kg
	Intermittent / Sporadic	2.3 mg/l
CAS: 2855-13-2	Fresh water	0.06 mg/l
	Marine water	0.006 mg/l
	Fresh water sediments	5.784 mg/kg
	Marine water sediments	0.578 mg/kg
	Plant wastewater treatment	3.18 mg/l
	Soil (agricultural)	1.121 mg/kg
	Intermittent / Sporadic	0.23 mg/l
CAS: 25513-64-8	Fresh water	0.0295 mg/l
	Marine water	0.00295 mg/l
	Fresh water sediments	0.18 mg/kg
	Marine water sediments	0.018 mg/kg
	Plant wastewater treatment	72 mg/l
	Soil (agricultural)	0.019 mg/kg

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.

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 reuse.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance (physical state, colour)	Clear to light yellow liquid
Odour	Ammoniacal
Odour threshold	No data available
pH	No data available
Melting/Freezing point	No data available
Boiling point/range	227°C
Flash point (closed cup)	> 100°C
Evaporation rate	No data available
Flammability (solid, gaseous)	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
Density (typical at 25°C)	920 - 1000 kg/m³
Relative density	1.0
Solubilities	No data available
Partition coefficient (n-octanol/water)	No data available
Auto/Self-ignition temperature	365°C
Decomposition temperature	No data available
Dynamic viscosity (at 25°C)	0.06 Pa·s
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

Strong acids, strong bases, strong oxidising agents.

10.6. Hazardous decomposition products

None known.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Assessment: Acute Tox. 4, H302.
Product data:

ATEmix (Oral)	561798 mg/kg
ATEmix (Dermal)	2750 mg/kg
ATEmix (Inhalation)	3.75 mg/l

Substance data:

Identification	Route	Result
CAS: 100-51-6	Oral	LD50 – Rat – 500 mg/kg

CAS: 2855-13-2	Oral	LD50 – Rat – 1030 mg/kg
CAS: 25513-64-8	Oral	LD50 – Rat – 910 mg/kg

Skin corrosion/irritation

Assessment: Skin Corr. 1A, H314.
Product data: No data available.
Substance data: No data available.

Serious eye damage/irritation

Assessment: Eye Dam. 1, H318.
Product data: No data available.
Substance data: No data available.

Respiratory or skin sensitisation

Assessment: Skin Sens. 1, H317.
Product data: No data available.
Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

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.

12. Ecological information

12.1. Toxicity

Assessment: Aquatic Chronic 3, H412.
Product data: No data available.
Substance data:

Identification	Result
CAS: 100-51-6	LC50 – Fish – 646 mg/l – 48 h
	EC50 – Crustacean – 400 mg/l – 24 h
	EC50 – Algae – 79 mg/l – 3 h

CAS: 2855-13-2	LC50 – Fish – 110 mg/l – 96 h
	EC50 – Crustacean – 388 mg/l – 48 h
CAS: 25513-64-8	EC50 – Algae – 29.5 mg/l – 72 h

12.2. Persistence and degradability

Identification	Assessment	Duration	Result
CAS: 100-51-6	Readily biodegradable	28 days	94%
CAS: 2855-13-2	Non-readily biodegradable	28 days	8%
CAS: 25513-64-8	Not persistent and biodegradable	28 days	7%

12.3. Bioaccumulative potential

Identification	Assessment	Test
CAS: 100-51-6	Low bioaccumulative potential	Pow-Log 1.1
	Low bioaccumulative potential	BCF – Bioconcentration factor 0

12.4. Mobility in soil

Identification	Assessment	Test
CAS: 2855-13-2	Not mobile	Koc 928

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

United States Transportation of dangerous goods (49 CFR DOT)

14.1. UN number	1760
14.2. UN proper shipping name	Corrosive liquid, n.o.s. (Isophorondiamine)
14.3. UN transport hazard class(es)	8 
14.4. Packing group	II
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None

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

14.1. UN number	1760
14.2. UN proper shipping name	Corrosive liquid, n.o.s. (Isophorondiamine)
14.3. UN transport hazard class(es)	8 
14.4. Packing group	II
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None
Classification code	80
Transport category	2
Tunnel restriction code	E
Excepted quantities	30mL inner pckg; 500mL outer pckg
Limited quantity	1L

International Maritime Dangerous Goods (IMDG)

14.1. UN number	1760
14.2. UN proper shipping name	Corrosive liquid, n.o.s. (Isophorondiamine)
14.3. UN transport hazard class(es)	8 
14.4. Packing group	II
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None
EmS number	F-A, S-B
Stowage and handling	Category B SW2
Excepted quantities	30mL inner pckg; 500mL outer pckg
Limited quantity	1L

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

14.1. UN number	1760
14.2. UN proper shipping name	Corrosive liquid, n.o.s. (Isophorondiamine)
14.3. UN transport hazard class(es)	8 
14.4. Packing group	II
14.5. Environmental hazards	Marine Pollutant
14.6. Special precautions for user	None
Excepted quantities	30mL inner pckg; 500mL outer pckg
Limited quantity	1L

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

European regulations

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)

Restrictions according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
Restrictions related to the product: Restriction 3

Where applicable, refer to the following regulatory provisions:
Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1: none

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 and hazard statements in section 3:

	Classification	Hazard Statement
Oral Acute Tox. 4; H302	Acute toxicity (oral), category 4	Harmful if swallowed
Dermal Acute Tox. 4; H312	Acute toxicity (dermal), category 4	Harmful in contact with skin
Skin Corr. 1B; H314	Skin corrosion, category 1B	Causes severe skin burns and eye damage
Skin Sens. 1: H317	Skin sensitisation, category 1	May cause an allergic skin reaction
Eye Dam. 1; H318	Serious eye damage, category 1	Causes serious eye damage
Inhal. Acute Tox. 4; H332	Acute toxicity (inhalation), category 4	Harmful if inhaled
Aquatic Chronic 3; H412	Chronic aquatic hazard, category 3	Harmful 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.