

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Identification on the label/Trade name

label designation/Name of product

Photopolymer E-Poxy Part A

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

Relevant identified uses

remark

Light curing resin for EnvisionTec's family Computer Aided Modeling Devices

1.3 Details of the supplier of the safety data sheet

Importer/Only Representative

Envisiontec GmbH

Brusseler str., 51

Germany-D 45968 Gladbeck

P.O. Box:

Telephone: +49204398750

Telefax: +492043987599

E-mail: info@envisiontec.com

Information telephone: +49204398750

www.envisiontec.com

1.4 Emergency telephone number

This number is serviced during office hours.

SECTION 2: Hazards identification

Hazards description

Hazard designation:

This article doesn't contain dangerous substances or preparations intended to be released under normal or reasonably foreseeable conditions of use.

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

Skin Irrit. 2

hazard statements for health hazards

H315 Causes skin irritation.

health hazards

Skin Sens. 1

hazard statements for health hazards

H317 May cause an allergic skin reaction.

health hazards

Eye Irrit. 2

hazard statements for health hazards

H319 Causes serious eye irritation.

Environmental hazards

Aquatic Chronic 2

hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or 1999/45/EC

Additional information

No information available for acute dermal and inhalative toxicity

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



GHS07

GHS09

Signal word

Warning

Hazard statements

hazard statements for health hazards

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Hazard statements for environmental hazards:

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

General:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of 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.

Disposal:

P501 Dispose of contents/container to .

2.3 Other hazards

Other adverse effects

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Hazardous ingredients

7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol dimethacrylate 10 - 45 %

CAS 72869-86-4

Skin Irrit. 2, H315 / Eye Irrit. 2, H319

Acrylated oligomer 15 - 35 %

CAS Proprietary

Skin Sens. 1, H317 / Aquatic Chronic 3, H412

Epoxy resin 15 - 30 %

CAS 25068-38-6

Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Eye Irrit. 2, H319 /
Aquatic Chronic 2, H411

Methacrylated oligomer 15 - 20 %

CAS Proprietary

Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Eye Irrit. 2, H319

Acrylic resin 10 - 15 %

CAS Proprietary

Eye Irrit. 2, H319 / Aquatic Chronic 2, H411

Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide 0.1 - 2 %

CAS 162881-26-7

EC 423-340-5

Skin Sens. 1, H317 / Aquatic Chronic 4, H413

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change contaminated, saturated clothing.

Following inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. If breathing is irregular or stopped, administer artificial respiration.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap.

After eye contact

In case of contact with eyes, rinse immediately thoroughly with plenty of water and consult an ophthalmologist.

After ingestion

Do not induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

No known symptoms to date.

4.3 Indication of any immediate medical attention and special treatment needed

Special treatment

Treat symptomatically.

SECTION 5: Firefighting measures

Additional information

The product itself is not combustible. In case of fire and/or explosion do not breathe fumes. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂)

Dry extinguishing powder

Foam.

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Can be released in case of fire:

Carbon monoxide

Carbon dioxide (CO₂).

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

Additional information

Eliminate leaks immediately. Clear spills immediately.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions

Provide adequate ventilation. Wear personal protection equipment. Remove all sources of ignition.

For emergency responders

Personal protection equipment

Use appropriate respiratory protection.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up

Absorbing material, organic

Sand

Chemical binding agents, containing acids

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work.

Provide eye shower and label its location conspicuously

Protective measures

Advices on safe handling

Do not breathe gas/fumes/vapour/spray.

Avoid:

Skin contact

Eye contact

Always close containers tightly after the removal of product.

Measures to prevent fire

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Take precautionary measures against static discharges. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Materials to avoid

Oxidising agent

Reducing agent

Strong alkali

Alcohols.

Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place. Protect containers against damage. UV-radiation/sunlight.

7.3 Specific end use(s)

Recommendation

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No data available

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Suitable eye protection

Eye glasses with side protection

Goggles.

Skin protection

Suitable gloves type

Disposable gloves

Suitable material

NBR (Nitrile rubber)
Butyl rubber.

Unsuitable material

NR (natural rubber, natural latex)

Body protection

Suitable protective clothing

Lab apron. Lab coat.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:
insufficient ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state

liquid

Colour

transparent
yellow

Odour

Acrylate.

		parameter	Method - source - remark
pH	6.8 - 7.2	Temperature 25 °C	
Melting point/freezing point			not determined
Initial boiling point and boiling range	>100 °C		
Flash point (°C)	>150 °C		
Evaporation rate			not determined
flammability			not determined
Upper explosion limit			not determined
lower explosion limit			not determined
Vapour pressure			not determined
Vapour density			not determined
Density	1.05 - 1.12 g/cm ³	Temperature 25 °C	
Fat solubility (g/L)			not determined
Water solubility (g/L)			insoluble
Soluble (g/L) in			Isopropanol
Partition coefficient: n-octanol/water			not determined

parameter	Method - source - remark
Auto-ignition temperature	not determined
Decomposition temperature	not determined
Dynamic viscosity	1000 - 1500 mPa*s Temperature 30 °C
flow time	not determined
Kinematic viscosity	not determined

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3 Possibility of hazardous reactions

Danger of polymerisation

with heat evolution in presence of radical forming substances, reducing agents, and/or heavy metals ions.

10.4 Conditions to avoid

In case of light influence:

Danger of polymerisation

Can polymerize with intensive heat release.

10.5 Incompatible materials

Materials to avoid

Oxidising agent

Reducing agent

Radical former

Peroxides

Acid

Alkali (lye)

Heavy metals.

10.6 Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

Carbon dioxide

Carbon monoxide

SECTION 11: Toxicological information

Additional information

Product has not been tested. The statement is derived from properties of the components.

11.1 Information on toxicological effects

Acute toxicity

Acute dermal toxicity

ingredient 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol dimethacrylate

Acute dermal toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rabbit

Method

OECD 402

ingredient Acrylated oligomer

Acute dermal toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rabbit

Method

OECD 402

ingredient Acrylic resin

Acute dermal toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rabbit

Method

OECD 402

ingredient Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Acute dermal toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rat

Method

OECD 402

Acute oral toxicity

ingredient 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecan-1,16-diol dimethacrylate

Acute oral toxicity >5000 mg/kg

Effective dose

LD50:

Species:

Rat

Method

OECD 401

ingredient Acrylated oligomer

Acute oral toxicity >5000 mg/kg

Effective dose

LD50:

Species:

Rat

Method

OECD 401

ingredient Epoxy resin

Acute oral toxicity 13800 mg/kg

Effective dose

LD50:

Species:

Rat

ingredient Acrylic resin

Acute oral toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rat

ingredient Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Acute oral toxicity >2000 mg/kg

Effective dose

LD50:

Species:

Rat

Method

OECD 401

Respiratory or skin sensitisation

Sensitisation to the respiratory tract

Assessment/classification

May cause sensitization by inhalation and skin contact.

Skin sensitisation

Assessment/classification

May cause sensitisation by skin contact.

SECTION 12: Ecological information

Additional information

Do not allow uncontrolled discharge of product into environment. Do not allow to enter into surface water or drains. The product has not been tested. The statement is derived from the properties of the components.

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

ingredient 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate

Acute (short-term) fish toxicity 10.1 mg/L

Effective dose

LC50:

Test duration 96 h

species

Brachydanio rerio (zebra-fish)

Method

OECD 203

ingredient Acrylated oligomer

Acute (short-term) fish toxicity 100 mg/L

Effective dose

LC50:

Test duration 96 h

species

Brachydanio rerio (zebra-fish)

Method

OECD 203

ingredient Acrylic resin

Acute (short-term) fish toxicity 5.62 mg/L

Effective dose

LC50:

Test duration 96 h

species

Brachydanio rerio (zebra-fish)

ingredient Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Acute (short-term) fish toxicity 90 mg/L

Effective dose

LC50:

Test duration 96 h

species

Brachydanio rerio (zebra-fish)

Method

OECD 203

ingredient Epoxy resin

Acute (short-term) fish toxicity 1.5 mg/L

Effective dose

LC50:

Test duration 96 h

species

Salmo trutta fario (L) (Freshwater trout)

Acute (short-term) toxicity to crustacea

ingredient Epoxy resin

Acute (short-term) toxicity to crustacea 2.7 mg/L

Effective dose

EC50

Test duration 48 h

species

Daphnia magna (Big water flea)

ingredient Acrylic resin

Test duration 48 h

species

Daphnia magna (Big water flea)

Result / evaluation

No toxicity was observed

ingredient Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Acute (short-term) toxicity to crustacea 1175 mg/L

Effective dose

EC50

Test duration 48 h

species

Daphnia magna (Big water flea)

Method

OECD 202

Acute (short-term) toxicity to aquatic algae and cyanobacteria

ingredient Acrylic resin

Acute (short-term) toxicity to aquatic algae and cyanobacteria 12 mg/L

Effective dose

IC50:

Test duration 72 h

species

Scenedesmus subspicatus

Method

OECD 201

12.2 Persistence and degradability

Biodegradation

ingredient 7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate

Degradation rate (%): 22 %

Method

OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D

ingredient Acrylated oligomer

parameter

This material is not readily biodegradable.

12.3 Bioaccumulative potential

Assessment/classification

The product has not been tested.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The product has not been tested.

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Waste disposal according to official state regulations.

Appropriate disposal / Package

Handle contaminated packaging in the same way as the substance itself.

Waste code packaging 070208

hazardous waste Yes.

Waste name

other still bottoms and reaction residues

Waste code product 070208

hazardous waste Yes.

Waste name

other still bottoms and reaction residues

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN-No.	3082	3082	3082
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A - Epichlorohydrin polymer)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A - Epichlorohydrin polymer)	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer)
14.3 Class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 ENVIRONMENTALLY HAZARDOUS	Yes.	Yes.	Yes.
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not applicable	not applicable	not applicable

Additional information - Land transport (ADR/RID)

Hazard label(s) 9
Limited quantity (LQ) 5 L
Hazard identification number (Kemler No.) 90
tunnel restriction code -
transport category 3

Additional information - Sea transport (IMDG)

Marine pollutant Yes.

Additional information - Air transport (ICAO-TI / IATA-DGR)

Limited quantity (LQ) 30

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Further details

Follow national regulation for work with chemical agents.

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Additional information

Observe labels and safety data sheets for chemicals used in processing. Notice the directions for use on the label.

Relevant R-, H- and EUH-phrases (Number and full text)

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.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Key literature references and sources for data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.