

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

### 1.1 Product identifier

**Trade name/designation** Photopolymer EC 500 (included EC500, EC500M)

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

#### Relevant identified uses

##### Sector of uses [SU]

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

Telephone: +49204398750

E-mail: info@envisiontec.com

Information telephone: +49204398750

www.envisiontec.com

### 1.4 Emergency telephone number

This number is serviced during office hours.

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## 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

#### Additional information

No information available for acute dermal and inhalative toxicity

#### 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

Eye Irrit. 2

##### hazard statements for health hazards

H319 Causes serious eye irritation.

##### health hazards

Skin Sens. 1

##### hazard statements for health hazards

H317 May cause an allergic skin reaction.

##### Environmental hazards

Aquatic Acute 3

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## hazard statements for environmental hazards

H412 Harmful to aquatic life with long lasting effects.

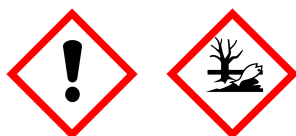
## 2.2 Label elements

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

#### Hazard components for labelling

Phosphine oxide

#### 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

H412 Harmful 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.

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

##### Disposal:

P501 Dispose of contents/container to industrial incineration plant.

#### Product identifiers

Phosphine oxide

## 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. Process vapours can irritate airways, skin and eyes.

## SECTION 3: Composition / information on ingredients

### Additional information

Full text of H- and EUH-statements: see section 16.

### 3.1/3.2 Substances/Mixtures

#### Hazardous ingredients

Methacrylated oligomer

50 - 90 %

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

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Methacrylated monomer Skin Irrit. 2, H315 / Eye Irrit. 2, H319	5 - 40 %
Wax Skin Irrit. 2, H315 / Eye Irrit. 2, H319	5 - 30 %
Phosphine oxide Skin Sens. 1, H317 / Aquatic Chronic 4, H413	1 - 2 %

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## 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

Wash immediately with:

Water and soap

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### Following ingestion

If swallowed, immediately drink:

Water. Induce vomiting when the affected person is not unconscious.

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

#### Symptoms

No symptoms known up to now.

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

No data available

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## SECTION 5: Firefighting measures

### Additional information

The product itself is not combustible. In case of fire and/or explosion do not breathe fumes.

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>)

Dry extinguishing powder.

Foam

Water spray

### 5.2 Special hazards arising from the substance or mixture

No data available

### 5.3 Advice for firefighters

#### Special protective equipment for firefighters

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

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

##### Personal precautions

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 empty into drains or the aquatic environment.

### 6.3 Methods and material for containment and cleaning up

#### For containment

##### Suitable material for taking up

Absorbing material, organic

Sand

#### For cleaning up

##### Suitable material for diluting or neutralizing

Water

### 6.4 Reference to other sections

No data available

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## 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. 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

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.

##### Environmental precautions

See section 8.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Hints on joint storage

##### Materials to avoid

Materials to avoid

Oxidising agent

Strong alkali

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Alcohols  
Reducing agent

**Storage class**

No storage class

**Further information on storage conditions**

Keep only in the original container in a cool, well-ventilated place. Protect containers against damage.

Protect against:

UV-radiation/sunlight.

**storage temperature**

**Value** 10 - 40 °C

**7.3 Specific end use(s)**

No data available

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**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

No data available

**8.2 Exposure controls**

**Personal protection equipment**

**Eyeface protection**

**Suitable eye protection**

Eye glasses with side protection

goggles

**Skin protection**

**Suitable gloves type**

Disposable gloves

**Suitable material**

NBR (Nitrile rubber)

**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.

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Physical state**

liquid

**Colour**

dark yellow

**Odour**

Acrylate

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parameter	Method - source - remark
Evaporation rate	not determined
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range >100 °C	
flammability	not determined
Upper explosion limit	not determined
lower explosion limit	not determined
Flash point (°C) >100 °C	
Auto-ignition temperature	not determined
Decomposition temperature	not determined
pH 6.8 - 7.2	Temperature 25 °C
Soluble (g/L) in	Isopropyl alcohol: Soluble in:
Soluble (g/L) in	Insoluble in:
Fat solubility	not determined
Water solubility	not determined
Partition coefficient: n-octanol/water	not determined
Vapour pressure 0.0015 mm Hg	Temperature 25 °C
Vapour density	not determined
Relative density 1.06 - 1.1 g/cm <sup>3</sup>	Temperature 25 °C
particle characteristics	not determined
Dynamic viscosity 300 - 600 mPa*s	Temperature 25 °C
flow time	not determined
Kinematic viscosity	not determined

## 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

No information available.

## 10.4 Conditions to avoid

In case of light influence:

Danger of polymerisation

## 10.5 Incompatible materials

### Materials to avoid

Reacts with :

Oxidizing agents. Reducing agents. Peroxides.

Radical former

## 10.6 Hazardous decomposition products

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

Carbon dioxide

Carbon monoxide

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Acute dermal toxicity

**ingredient** Phosphine oxide

**Acute dermal toxicity** >2000 mg/kg

##### Effective dose

LD50:

##### Species:

Rat

##### Method

OECD 402

##### Acute oral toxicity

**ingredient** Phosphine oxide

**Acute oral toxicity** >2000 mg/kg

##### Effective dose

LD50:

##### Species:

Rat

##### Method

OECD 401

#### Serious eye damage/irritation

##### In vitro eye test

slightly irritant

##### Species:

Rabbit.

#### Respiratory or skin sensitisation

##### Skin sensitisation

##### Assessment/classification

May cause sensitization by inhalation and skin contact.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

##### Acute (short-term) fish toxicity

**ingredient** Phosphine oxide

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

##### Effective dose

LC50:

**Test duration** 96 h

##### species

Danio rerio (zebrafish)

##### Method

OECD 203

##### Acute (short-term) toxicity to crustacea

**ingredient** 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 algae and cyanobacteria

**ingredient** Phosphine oxide

**Acute (short-term) toxicity to algae and cyanobacteria** >=260 mg/L

##### Effective dose

EC50

**Test duration** 72 h

##### species

Desmodesmus subspicatus

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

#### Assessment/classification

not readily biodegradable (according to OECD criteria)

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Other adverse effects

No information available.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Directive 2008/98/EC (Waste Framework Directive)

##### Before intended use

##### Appropriate disposal / Package

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

**Waste code product** 070208

**hazardous waste** Yes.

##### Waste name

other still bottoms and reaction residues

##### After intended use

##### Appropriate disposal / Product

Waste disposal according to official state regulations.

**Waste code packaging** 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.	not applicable	not applicable	not applicable
14.2 Proper Shipping Name	not applicable	not applicable	not applicable
14.3 Class(es)	not applicable	not applicable	not applicable
14.4 Packing group	not applicable	not applicable	not applicable
14.5 ENVIRONMENTALLY HAZARDOUS	not applicable	not applicable	not applicable
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

### Additional information - Land transport (ADR/RID)

#### remark

Not a hazardous material with respect to these transportation regulations.

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

#### remark

Not a hazardous material with respect to these transportation regulations.

## SECTION 15: Regulatory information

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

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## 15.2 Chemical Safety Assessment

Irritant

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### 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)

H317 May cause an allergic skin reaction.

H413 May cause long lasting harmful effects to aquatic life.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### 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.