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

### **1.1 Product identifier**

**Trade name/designation** Photopolymer PIC 100 series (included PIC 100, PIC 100 M, PIC 100G, PIC 100 G M, PIC 100G2, and PIC 100 C)

### **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  
P.O. Box:  
Telephone: +49204398750  
E-mail: [info@envisiontec.com](mailto:info@envisiontec.com)  
Information telephone: +49204398750  
[www.envisiontec.com](http://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**

#### **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.

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

### Additional information

No information available for acute dermal and inhalative toxicity

### R phrases

R43 May cause sensitisation by skin contact.

### Categories of danger

R43

## 2.2 Label elements

### Hazard components for labelling

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

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

#### Hazard pictograms



GHS07

#### 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.

#### 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

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

#### Labelling (67/548/EEC or 1999/45/EC)

### R phrases

R43 May cause sensitisation by skin contact.

### S-phrases

S2 Keep out of the reach of children.

S24 Avoid contact with skin.

S37 Wear suitable gloves.

S46 If swallowed, seek medical advice immediately and show this container or label.

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## Hazard symbols and hazard statements of dangerous substances and preparations

Xi Irritant

### 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.

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## SECTION 3: Composition / information on ingredients

### remark

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

### 3.1/3.2 Substances/Mixtures

#### Hazardous ingredients

phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide CAS 162881-26-7 EC 423-340-5 INDEX 015-189-00-5 R43; R53 Skin Sens. 1, H317 / Aquatic Chronic 4, H413	0.1 - 5 %
Methacrylated oligomer Skin Irrit. 2, H315 / Eye Irrit. 2, H319	50 - 90 %
Methacrylated monomer Skin Irrit. 2, H315 / Eye Irrit. 2, H319	5 - 40 %

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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.

#### After 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.

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#### 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

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** 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

#### Appropriate engineering controls

#### Structural measures to prevent exposure

Do not use above following temperatures:

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## 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)

### 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

#### Physical state

liquid

#### Colour

yellow  
green  
dark green

#### 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)	>100 °C		
Evaporation rate			not determined
flammability			not determined
Upper explosion limit			not determined
lower explosion limit			not determined
Vapour pressure	0.0018 mm Hg	Temperature 25 °C	
Vapour density			not determined

	parameter	Method - source - remark
Density	1.08 - 1.12 g/cm <sup>3</sup> Temperature 25 °C	
Fat solubility (g/L)		not determined
Water solubility (g/L)		not determined
Soluble (g/L) in		Isopropyl alcohol: Soluble in:
Soluble (g/L) in		Insoluble in:
Partition coefficient: n-octanol/water		not determined
Auto-ignition temperature		not determined
Decomposition temperature		not determined
Dynamic viscosity	200 - 400 mPa*s Temperature 25 °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 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

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Acute dermal toxicity

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

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

##### Effective dose

LD50:

##### Species:

Rat.

##### Acute oral toxicity

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

**Acute oral toxicity** >5000 mg/kg

##### Effective dose

LD50:

##### Species:

Rat.

##### 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** phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

**Acute (short-term) fish toxicity** >180 mg/L

##### Effective dose

LC50:

**Test durarion** 48 h

##### species

Cyprinus carpio (Common Carp)

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

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

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**Acute (short-term) toxicity to crustacea** >25 mg/L

**Effective dose**

EC50

**Test duration** 48 h

**species**

Daphnia magna (Big water flea)

**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.

**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.	not applicable	not applicable	not applicable
14.2 Proper Shipping Name			
14.3 Class(es)			
14.4 Packing group			

Land transport (ADR/RID)

Sea transport (IMDG)

Air transport (ICAO-TI / IATA-DGR)

14.5 ENVIRONMENTALLY  
HAZARDOUS

14.6 Special precautions for user

14.7 Transport in bulk according  
to Annex II of MARPOL 73/78  
and the IBC Code

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

**remark**

Not a hazardous material with respect to these transportation regulations.

#### Additional information - Sea transport (IMDG)

**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

No data available

#### 15.2 Chemical Safety Assessment

Irritant

### 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.