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

#### 1.1. Product identifier

e3D.C01

UFI: 976X-69PP-N00H-4JXC

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

#### Use of the substance/mixture

Light curing one component resin for generative manufacturing of casts for the production of earmoulds made from silicone.

#### 1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor: egger Otoplastik+Labortechnik GmbH

Street/POB-No.: Aybühlweg 59

Postal code/city/country: 87439 Kempten/Germany

Telephone: +49 831 58113-60 Telefax: +49 831 58113-14 Internet: www.egger.online E-mail: sales@egger.online

#### 1.4. Emergency telephone number: +49 89 19240

Emergency number: Munich, Germany, toxicological dep. of the II. Med. Hospital)

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory or skin sensitisation: Skin Sens. 1

Reproductive toxicity: Repr. 2

Specific target organ toxicity - single exposure: STOT SE 3 Hazardous to the aquatic environment: Aquatic Chronic 2

#### **Hazard Statements:**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

May cause respiratory irritation.

Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

Regulation (EC) No. 1272/2008

## Hazardous components which must be listed on the label

isopropylidenediphenol peg-2 dimethacrylate

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate tetrahydrofurfuryl methacrylate THFMA purified grade

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 $\ diphenyl (2,4,6-trimethylbenzoyl) phosphine \ oxide$ 

Signal word Warning



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## **Pictograms**







#### **Hazard statements**

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H361 Suspected of damaging fertility or the unborn child.
- H411 Toxic to aquatic life with long lasting effects.

#### **Precautionary statements**

- 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/hearing protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P391 Collect spillage.
- P501 Dispose of contents/ container in accordance with local and national regulations.

## 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### **Chemical characterization**

Mixture of acrylic/ methacrylic resins with auxilliary matters.

## **Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification		*	
41637-38-1	isopropylidenediphenol peg-2	2 dimethacrylate		20 - < 60 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1A, STOT SE 3; H315 H319 H317 H335			
144086-02-2	2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid			
	604-394-0			
	Eye Irrit. 2, Aquatic Chronic 2; F	H319 H411		
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dio	oxo-3,14-dioxa-5,12-diazahexadecan	e-1,16-diyl bismethacrylate	20 - < 25 %
	276-957-5		01-2120751202-68	
	Skin Sens. 1B, Aquatic Chronic	2; H317 H411		



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2455-24-5	tetrahydrofurfuryl methacrylate THFMA purified grade			1 - < 25 %	
	Repr. 2, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H361 H315 H319 H317 H335				
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 0.1 - < 5 %			0.1 - < 5 %	
	278-355-8	015-203-00-X			
	Repr. 2, Skin Sens. 1B, Aquatic Chronic 2; H361f H317 H411				

Full text of H and EUH phrases: see section 16.

### **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

## After ingestion

Rinse mouth immediately and drink plenty of water.

Seek immediately medical advice. Do not induce vomiting. In case of spontaneous vomiting take care of an unhindered flow out of the vomit (danger of suffocation).

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

No information available.

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

Treat symptomatically.

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

## 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.



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### **SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

## 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

## Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

## Advice on protection against fire and explosion

No special fire protection measures are necessary.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

#### Hints on joint storage

Keep away from spontaneous flammable or combustible substances.

#### Further information on storage conditions

Keep only in the original container in a cool, dry and well-ventilated place, away from foodstuffs. Keep away from all kind of ligth. An inert gas blanket should not be applied, because the stability of the product depends on the presence of oxygen (air).

#### 7.3. Specific end use(s)

Light curing one component resin for generative manufacturing of casts for the production of earmoulds made from silicone. For use by trained specialist staff.

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

# 8.1. Control parameters

### 8.2. Exposure controls

#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.



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# Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Eye/face protection

Suitable eye protection: goggles.

## Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Suitable are gloves of the following material: Butyl caoutchouc (butyl rubber).

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state: liquid

Colour: several - transparent
Odour: faintly like esters

		Test method
pH-Value:	not determined	
Changes in the physical state		
Melting point:	not determined	
Initial boiling point and boiling range:	not determined	
Flash point:	>100 °C	DIN 51755
Flammability		
Solid:	not determined	
Gas:	not applicable	
Lower explosion limits:	not determined	
Upper explosion limits:	not determined	
Auto-ignition temperature		
Solid:	not determined	
Gas:	not applicable	
Decomposition temperature:	>=190 °C	
Oxidizing properties	Not oxidizing.	
Vapour pressure (at 20 °C):	<1 hPa	
Density (at 20 °C):	1.09 g/cm³	DIN 51757
Water solubility:	practically insoluble	



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Solubility in other solvents	not determined	
Partition coefficient:	not determined	
Vapour density:	not determined	
Evaporation rate:	not determined	

#### 9.2. Other information

Solid content: Not determined.

## **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

Reacts with: Strong oxidising agents, strong alcaline or acidic materials.

## 10.4. Conditions to avoid

Oxidising agents, radicals forming substances or heavy metal ions. Ultra-violet ligth and dayligth initiate polymerisation of the product. Therefore keep only in tigthly closed containers away from any sources of ligth at 15 °C - 28 °C / 59 °F - 82 °F.

## 10.5. Incompatible materials

No information available.

## 10.6. Hazardous decomposition products

In case of fire, acrid acrylic fumes may occur.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

## **Acute toxicity**

Based on available data, the classification criteria are not met. For the product itself no toxicological data are available. In products with a comparable composition, a LD50 (orally, species rat) of > 5000 mg/kg has been found.

CAS No	Chemical name					
	Exposure routes	Dose		Species	Source	Method
144086-02-2	2,2-bis(hydroxymethyl)-1,3-propar	pandiol, ethoxylated and propoxylated, ester with acrylic acid				c acid
	oral	LD50	>5000 mg/kg	Rat	OECD 401	
72869-86-4	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo	3-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate			crylate	
	oral	LD50	>5000mg/kg	Rat	OECD401	
	dermal	LD50	>2000 mg/kg	Rat	OECD402	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide					
	oral	LD50	>5000 mg/kg	Rat		
	dermal	LD50	>2000 mg/kg	Rat		



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#### Irritation and corrosivity

Causes skin irritation. Causes serious eye irritation.

#### Sensitising effects

May cause an allergic skin reaction. (isopropylidenediphenol peg-2 dimethacrylate; 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate; tetrahydrofurfuryl methacrylate THFMA purified grade; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide).

## Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility or the unborn child. (tetrahydrofurfuryl methacrylate THFMA purified grade; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

### STOT-single exposure

May cause respiratory irritation. (isopropylidenediphenol peg-2 dimethacrylate)

#### STOT-repeated exposure

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

#### **Aspiration hazard**

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

### Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

## **SECTION 12: Ecological information**

### 12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
144086-02-2	2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid						
	Acute fish toxicity	LC50	7.9 mg/l	96 h	Brachydanio rerio (zebra-fish)	OECD 203	
	Acute crustacea toxicity	EC50	90.94 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
72869-86-4	7,7,9(or 7,9,9)-trimethy	l-4,13-di	ioxo-3,14-dio	xa-5,12-0	diazahexadecane-1,16-diyl bisme	ethacrylate	,
	Acute crustacea toxicity	EC50	>1.2 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
2455-24-5	tetrahydrofurfuryl met	hacrylat	e THFMA pu	rified gra	de		
	Acute fish toxicity	LC50	34.7 mg/l	96 h		GESTIS	
75980-60-8	diphenyl(2,4,6-trimethy	ylbenzoy	yl)phosphine	oxide			
	Acute algae toxicity	ErC50	>2.01 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	3.53 mg/l	48 h	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(>1000	mg/l)	3 h	Activated sludge		



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## 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
144086-02-2	2-2 2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid				
	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	27 %	28		
	Not readily biodegradable (according to OECD criteria).				
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
		0-10 %	28		
	Not readily biodegradable (according to OECD criteria).				

### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	
144086-02-2	2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid	2.17-2.61
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3.1

### **BCF**

CAS No	Chemical name	BCF	Species	Source
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	47-55	Cyprinus carpio (Common Carp)	

## 12.4. Mobility in soil

The product has not been tested.

## 12.5. Results of PBT and vPvB assessment

Not identivied as PBT/vPvB substances.

## 12.6. Other adverse effects

No information available.

## **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

#### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

## Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.



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## **SECTION 14: Transport information**

# Land transport (ADR/RID)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains: 2,2-bis(hydroxymehtyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Classification code: M6 Limited quantity: 5 L / 30 kg Transport category: 3

Hazard No: 90

Tunnel restriction code: E

#### Other applicable information (land transport)

Contains: 2,2-bis(hydroxymehtyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid.

### Marine transport (IMDG)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains: 2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid.

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Limited quantity: 5 L/3 0 kg Excepted quantity: E1

EmS: F-A, S-F

## Other applicable information (marine transport)

Contains: 2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid.

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

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains: 2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid.

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Limited quantity Passenger: 30 kg G

Passenger LQ: Y964 Excepted quantity: E1

IATA-packing instructions - Passenger: 964 IATA-max. quantity - Passenger: 450 L IATA-packing instructions - Cargo: 964 IATA-max. quantity - Cargo: 450 L

### Other applicable information (air transport)

Contains: 2,2-bis(hydroxymethyl)-1,3-propandiol, ethoxylated and propoxylated, ester with acrylic acid.

## 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



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### 14.6. Special precautions for user

No information available.

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

## **SECTION 15: Regulatory information**

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

## National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the ,juvenile work protection

quideline (94/33/EC). Observe employment restrictions under the Maternity Protection

Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 3 - strongly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

## **SECTION 16: Other information**

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50 %

LD50: Lethal dose, 50 %

## Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Repr. 2; H361	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Chronic 2; H411	Calculation method

## Relevant H- and EUH-phrases (Number and full text)

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.



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H361 Suspected of damaging fertility or the unborn child. H361f Suspected of damaging fertility. H411 Toxic to aquatic life with long lasting effects.

#### **Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)