# SAFETY DATA SHEET

**3D printer resin – DLP High Tensile**



**Compilation date:** 27/02/2012

**Revision No:** 2

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

### 1.1. Product identifier

**Product name:** **3D printer resin**
**Product code:** **Ultra Violet Light Curing DLP High Tensile**

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

**Use of substance / mixture:** Use in DLP 3D printers.

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

**Company name:** Photocentric Ltd
Cambridge
House
Oxney Road
Peterborough
Cambridgeshire
PE1 5YW
England

**Tel:** +44 (0) 1733 349937

**Email:** info@photocentric.co.uk

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 1733 349937 (office hrs only)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CHIP:** Xi: R37; Sens.: R43; -: R52/53
**Classification under CLP:** Aquatic Chronic 3: H412; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1A: H317
**Most important adverse effects:** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

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### 2.2. Label elements

**Label elements under CLP:**

**Hazard statements:** H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H412: Harmful to aquatic life with long lasting effects.

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**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark

[cont...]

**Precautionary statements:** P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection. P302+352: IF ON SKIN: Wash with plenty of water/.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see instructions on this label).

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

**Hazardous ingredients:**

ACRYLATE OLIGOMER

| EINECS | CAS | PBT / WEL | CLP Classification | Percent |
|---|---|---|---|---|
| PROPRIETARY | PROPRIETARY | - | Eye Irrit. 2: H319; Skin Sens. 1: H317 | 30-50% |

ACRYLATE MONOMER

| | | | | |
|---|---|---|---|---|
| - | PROPRIETARY | - | Skin Irrit. 2: H315; Eye Irrit. 2: H319 | 10-30% |

METHACRYLATE MONOMER

| | | | | |
|---|---|---|---|---|
| PROPRIETARY | PROPRIETARY | - | Skin Irrit. 2: H315; Eye Irrit. 2: H319 | 10-30% |

ACRYLATE MONOMER

| | | | | |
|---|---|---|---|---|
| PROPRIETARY | PROPRIETARY | - | Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 | 3-10% |

PHOTOINITIATOR

| | | | | |
|---|---|---|---|---|
| - | PROPRIETARY | - | Eye Irrit. 2: H319; Skin Sens. 1A: H317; Aquatic Chronic 2: H411 | 1.5-3% |

PHOTOINITIATOR

| | | | | |
|---|---|---|---|---|
| PROPRIETARY | PROPRIETARY | - | Skin Sens. 1: H317; Repr. 2: H361f; Aquatic Chronic 2: H411 | 0.1-1% |

ACRYLATE MONOMER

| | | | | |
|---|---|---|---|---|
| PROPRIETARY | PROPRIETARY | - | Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 | 0.1-1% |

[cont...]

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

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

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

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

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Various

**Odour:** Characteristic odour

**Evaporation rate:** Negligible.

**Oxidising:** No data available.

**Solubility in water:** Slightly soluble

**Also soluble in:** Most organic solvents.

**Viscosity**: L o w

**Boiling point/range°C:** >35

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** >93

[cont...]

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** Not applicable.

**VOC g/l:** Not applicable.

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**Hazardous ingredients:**
**Acrylate monomer**

| | | | | |
|---|---|---|---|---|
| IPR | RAT | LD50 | 55 | mg/kg |
| ORL | RAT | LD50 | 5190 | µl/kg |

**Acrylate monomer**

| | | | | |
|---|---|---|---|---|
| IPR | RAT | LD50 | 760 | mg/kg |
| ORL | RAT | LD50 | 5 | gm/kg |

[cont...]

**Relevant hazards for substance:**

| Hazard | Route | Basis |
|---|---|---|
| Skin corrosion/irritation | DRM | Hazardous: calculated |
| Serious eye damage/irritation | OPT | Hazardous: calculated |

**Symptoms / routes of exposure**

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** Readily absorbed into soil.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

**12.6. Other adverse effects**

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**14.1. UN number**

**UN number:** Not applicable.

[cont...]

### 14.2. UN proper shipping name

**Shipping name:** Not applicable.

### 14.3. Transport hazard class(es)

**Transport class:** Not applicable.

### 14.4. Packing group

**Packing group:** Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous:** Not applicable. **Marine pollutant:** No

### 14.6. Special precautions for user

**Special precautions:** No special precautions.

## Section 15: Regulatory information

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

**Specific regulations:** Not applicable.

### 15.2. Chemical Safety Assessment

## Section 16: Other information

**Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H228: Flammable solid.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H361f: Suspected of damaging fertility.

H373: May cause damage to organs through prolonged or repeated exposure.

H412: Harmful to aquatic life with long lasting effects.

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**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.