



SAFETY DATA SHEET

3D printer resin – DLP Tough

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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 Tough**

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.

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.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark



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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%
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METHACRYLATE MONOMER

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

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

-	PROPRIETARY	-	Eye Irrit. 2: H319; Skin Sens. 1A: H317; Aquatic Chronic 2: H411	1.5-3%
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PROPRIETARY	PROPRIETARY	-	Skin Sens. 1: H317; Repr. 2: H361f; Aquatic Chronic 2: H411	0.1-1%
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ACRYLATE MONOMER

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

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...]

Autoflammability°C: No data available.

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

Relative density: No data available.

Vapour pressure: No data available.

VOC g/l: Not applicable.

pH: 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

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.

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.

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.