

CADworks3D


μ MICROFLUIDICS

Material Safety Data Sheet
Master Mold for PDMS Devices
3D Printing Resin Photopolymer Resin

1. Chemical Product & Company Identification

Identification of the substance:	CCW Master Mold for PDMS Device
Use of the substance / preparation:	UV resin for 3D printer
Company / undertaking identification:	Creative CADWorks 27 Queen St. East Suite 1401 Toronto, On. M5C 2M6 Canada
Emergency telephone:	+1 416 368 7266

2. Hazardous Identification

Classification/Symbols	
Risk Phrases	R22 - Maybe harmful if swallowed R36/37/38 - Irritating to eyes, respiratory system & skin R43 - May cause sensitisation by skin contact
Safety Phrases	S7 - Keep container tightly closed S9 - Keep container in a well-ventilated place S20 - When using do not eat or drink S24/25 - Avoid contact with eyes and skin. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 - After contact with skin, wash immediately with plenty of water. S29 - Do not empty into drains S37/39 - Wear suitable gloves and eye/face protection
Hazard Statements	H315 - Causes skin irritation H317 - May cause an allergic skin reaction

Precautionary statements	<p>P202 - Do not handle until all safety precautions have been read and understood</p> <p>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking</p> <p>P233 - Keep container tightly closed</p> <p>P261 - Avoid breathing dust, fume, gas, mist, vapours, spray</p> <p>P262 - Do not get in eyes, on skin, or on clothing</p> <p>P264 - Wash thoroughly after handling</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>Hazardous polymerization may occur upon depletion of inhibitor</p>
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3. Composition/Information on Ingredients

Composition of components	Weight%	Cas No.
Methacrylated oligomer	Proprietary	Proprietary
Methacrylated monomer	Proprietary	Proprietary
Photoinitiator & Additives	Proprietary	Proprietary

4. First-aid measures

Swallowing	DO NOT INDUCE VOMITING. If vomiting occurs naturally, keep airways clear. Immediately obtain medical attention.
Inhalation	If overcome by exposure, ventilate the premises. Remove victim(s) from contaminated areas to well ventilated areas or outdoors. If needed, provide oxygen or artificial respiration. Get immediate medical attention.
Contact with skin	Immediately take off all contaminated clothing. Wash skin immediately with mild soap/water for at least 15 minutes. If resin is not completely removed use a waterless cleaner first. Seek medical advice if irritation persists.
Contact with eyes	Wash the eye and under the eyelid immediately with water for 20-40 minutes. See Medical advice if irritation, pain, tears or redness persists.

5. Fire fighting measures

Recommended extinguishers	CO2, Foam, Chemical powders, sand or earth. Use water based extinguisher media with caution
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Extinguishers not to be used	None in particular.
Risks arising from combustion	Avoid inhaling the fumes. Incomplete combustion releases toxic gases.
Protective equipment	Use protection for the airways.

6. Measures in case of accidental release

Measures for personal safety	Use a mask, gloves and protective clothing.
Environmental measures	Limit leakages with earth or sand. If the product has flown off into a watcourse, into the drainage system, or has contaminated the ground vegetation, notify the responsible authorities.
Cleaning methods	Rapidly collect the product. To do so, wear a mask and protective clothing when the product is in a liquid form, stop it from entering the drainage systeRecover the product for re-use if possible, or for elimination in compliance with waste disposal regulations in force. The product might, when appropriate, be absorbed by inert material

7. Handling and storage

Handling precautions	Avoid contact with and inhalation of vapours and/or dusts. Do not eat or drink or smoke while working.
Incompatible materials	Keep away from amines, strong bases, acids and strong oxidants.
Storage conditions	Storage temperature: between 15°C/59°C to 35°C/95°F Keep in a dry place, in original containers tightly closed, avoid heat/ignition and light sources. Prevent Contamination by foreign materials and water. For industrial use only, keep away from children.

8. Exposure control/personal protection

Precautionary measures	Provide adequate ventilation to the areas where the product is stored and/or handled
Respiratory protection	Required where ventilation/aspiration is insufficient or exposure is prolonged, or applications in which the product is sprayed or heated. Required in case of mache or applications that release dust.

Protection for hands	Use protective gloves. For an extended exposure of the product, wear nitrile/neoprene gloves.
Eye protection	Safety goggles.
Protection for skin	Use clothing that provides complete protection to the skin.

9. Physical and chemical properties

Appearance and color	Liquid: Brown, green, red or violet
Odour	Light
pH	Not available
Melting point	Not available
Boiling point	Not available
Flash point	>100° C
Explosive properties	Not available
Combustion-related properties	Not available
Specific gravity ASTM D 1475	1.10 g/cm ³ at 25° C
Viscosity Solubility in water	175-230 cps Insoluble

10. Stability & Reactivity

Conditions to avoid	Stable under normal conditions.
Substances to avoid	The product reacts exothermically with amines, Lewis acids and mercaptans.
Hazardous decomposition products	Upon incomplete combustion carbon monoxide is formed.

11. Toxicological information

There is no toxicological data available on the mixture	Acrylated
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12. Ecological Information

The experimental information related to the eco-toxicological properties of the mixture itself is not available

Toxicity	Not available
Persistence and degradability	Not available
Bio-accumulative potential	Not available
Mobility in soil	Not available
Results of PBT and vPvB assessment	Not available
Other adverse effects	Not available

13. Disposal Considerations

Recover if possible. In doing so, comply with the local and national regulations currently in force. Avoid release to the environment. Refer to special instructions/Safety data sheets. Where applicable, refer to the following regulatory provisions : 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

14. Transport information

US Department of Transportation (DOT)

Not Regulated

International Maritime Dangerous Goods Code (IMDG)

Not Regulated

IATA

Not Regulated

15. Regulatory Information

All components are in compliance with the following inventories: US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippines PICCS, Chinese IECSC REACH No. : A registration number is not available for this substance as the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. Pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986, (SARA) and 40 CFR 372 Part 372, this product does not contain chemicals at levels greater or equal to 0.1wt% subject to the reporting requirements under Section 313. California Proposition 65: This product does not contain chemicals at levels greater or equal to 0.1wt% which are known to the state of California to cause birth defects or other reproductive harm.

Information provided by	CADworks3D/Resinworks3D 27 Queen St, East Suite 1401 Toronto, Ont. M5C 2M6, Canada
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Version	1

16. Disclaimer

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific intended use.