

Risk Assessment Form

Risk Assessment Form										
Location: 3D Lab			Date Assessed: 8/02/2024			Assessed by: Paige Tynan				
Task/Activity: Photopolymer Printing			Review Date: Feb 2025			Reference Number:				
Activity/ Task	Hazard/Risk	Persons at risk	Risk rating before implementing control measures			Controls in place	Risk rating after implementing control measures			Additional controls required
			Severity (1-5)	Likelihood (1-5)	Risk/Priority		Severity (1-5)	Likelihood (1-5)	Risk/Priority	
Operating the 3D printers	Fumes can result in dizziness, headaches, and throat and skin irritation. UV Lamp can cause eye irritation and blindness.	Lab users	1	2	2	When the printer is in operation the room will be well-ventilated. The printers are equipped with a carbon filter which reduces the fumes whilst printing. Safety glasses and gloves should be worn when pouring resin and removing prints from the print bed. A mask must be worn by occupants of the room whilst the printer is in operation. The printers are equipped with UV covers to protect the user from exposure to the UV rays. The machines will not operate if the cover is not closed properly.	1	1	1	
Pouring/Disposing of excess resin	Fumes can result in dizziness, headaches, and throat and skin irritation. Resin can cause skin irritation.	Lab users	1	2	2	When disposing of excess resin safety glasses and gloves should be worn to avoid skin eye and skin irritation of the resin. Before disposing of the excess resin in normal refuse the resin must be made safe. This can	1	1	1	

						be done by curing the excess liquid resin with a UV lamp. Once the resin is cured, it no longer poses risks to health or the environment.			
Post-processing	<p>Fumes can result in dizziness, headaches, and throat and skin irritation.</p> <p>Uncured resin can cause skin irritation and long term exposure can cause health issues.</p> <p>UV Lamp can cause eye irritation and blindness.</p>	Lab users	3	2	6	<p>The use of water-washable resin reduces the risks associated with handling isopropanol alcohol which is commonly used to clean photopolymer prints.</p> <p>Gloves and safety glasses should be worn when transferring the 3D print into the wash and cure machine. If the resin gets on the skin, it should be washed immediately.</p> <p>The wash and cure machine has a UV cover to protect the user from exposure to the UV rays. The machine will not operate if the cover is not closed properly.</p>	2	1	2

Risk/Priority Indicator Key

Severity (Consequence)
1. Negligible (delay only)
2. Slight (minor injury / damage / interruption)
3. Moderate (lost time injury, illness, damage, lost business)
4. High (major injury / damage, lost time business interruption, disablement)
5. Very High (fatality / business closure)

Likelihood

RISK / PRIORITY INICATOR MATRIX						
LIK ELI HO OD	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		SEVERITY (CONSEQUENCE)				

1. Improbable / very unlikely
2. Unlikely
3. Even chance / may happen
4. Likely
5. Almost certain / imminent

Summary		Suggested Timeframe
12-25	High	As soon as possible
6-11	Medium	Within next 3-6 months
1-5	Low	Whenever viable to do so

Action Plan

Action	Responsible Person	Proposed Completion Date	Date Completed