## School of Engineering COSHH assessment form

This form must be completed **before** any work with substances hazardous to health is begun, so that a suitable and sufficient assessment of the health risks is made.

NOTE FROM STUDENT: THIS GDP DOES NOT USE ANY HAZARDOUS SUBSTANCES AND THE SUBMISSION OF THIS COSHH FORM IS TO INFORM OF THE BENIGN SUBSTANCE THAT WILL BE USED FOR 3D PRINTING. A SUBSTANCE DATA-SHEET FOR PLA IS PROVIDED AS A SEPARATE FILE WITHIN THIS SUBMISSION DESPITE THE SUBSTANCE NOT BEING HAZARDOUS; JUST TO SHOW THAT THIS ASPECT OF THE PROJECT HAS BEEN CONSIDERED AND ADDRESSED.

Procedure being carried out	3D Printing with PLA filament			
Location where the substance will be used What supervision or training will the person carrying out the procedure receive?	Building 13, room 1015 N/A		Review date <sup>1</sup>	30/10/2024
, , ,	Name	Signature	Review date	Date
Person performing the work	Alejandro Parra Pintado	*		30/10/2024
Supervisor/grant holder	Ara Khodavirdi			
Divisional Safety Officer or other designated person				

This assessment should be reviewed immediately if there is any reason to consider that the original assessment is no longer valid, e.g. due to significant changes in the work activity.

### **Attachments**

The following documents must be attached:

- Risk assessment identifying the need for the COSHH assessment and clearly indicating the persons potentially at risk (e.g. staff, students, visitors etc.)
- Full description of the procedure.
- MSDS for all substances in 1 a) or b) below
- Any health and safety information provided by supplier in 1 c) below

### 1 Nature of the hazard and risks identified

# a) Chemicals with Health hazards H phrases H300, H301, H302, H304, H310, H311, H314, H318, H330, H331, H334, H340, H341, H350, H351, H360, H361, H370, H371, H372, H373, EUH029, EUH031, EUH032

Name of substance	Hazard phrases	Possible	Risk from single	Risks from	Duration of	Effects could be
	(Refer to MSDS	exposure route	acute exposure	repeated low	adverse effect	hazardous to human
	- must be	(see key		exposure		reproductive systems
	attached)	below) <sup>2</sup>				
Polylactic Acid (PLA)	N/A	1,2, 3, 4	Not serious	Not serious	Short term	No
Filament						

<sup>&</sup>lt;sup>2</sup>(1) Contact skin and/or eyes, (2) Inhalation, (3) Injection and/or sharps, (4) Ingestion

# b) Substances with Physical hazards H phrases H200, H201, H202, H203, H204, H205, H220, H221, H222, H223, H224, H225, H226, H228, H240, H241, H242, H250, H251, H252, H260, H261, H270, H271, H272, H280, H281, EUH001, EUH006, EUH014, EUH018, EUH019, EUH044

Name of substance	Hazard phrases (Refer to MSDS - must be attached)	What are the storage requirements for this material? How will they be met?	Quantity used in procedure	Quantity likely to be held in storage	Risk in planned use (delete as applicable)	Risk in uncontrolled release from storage (delete as applicable)

## c) Substances without a CAS No and no associated H phrases

Name of substance	Nature of the hazard e.g. biological, flammable, explosive, corrosive	Any other information relating to risks arising from this hazard
n/a		

### 2 Use of substance and control of risks

## a) Control measures

Polylactic Acid (PLA)	Because substance does not feature any special risks or hazards and does not possess a hazard	N/A
Filament	rating there are no additional control measures that should be put into effect during the work conducted with PLA.	

<sup>&</sup>lt;sup>3</sup> For the majority of work, atmospheric monitoring should not be necessary for protecting health, providing sufficient thought has gone into ensuring the adequacy of control measures in relation to risks, and the control measures are properly used and maintained

b) Emergency measures

Polylactic Acid (PLA)	Although substance is not inherently hazardous and is extruded in very small quantities, PLA is	N/A
Filament	heated to temperatures of up to 200°C when extruded from the printer nozzle. If any substance at	
	that temperature was to touch a person's skin the person should immediately use the nearest sink	
	in B13 to rinse the superficial burn with cold water.	

c) Disposal of substance or product resulting from its use.

Polylactic Acid (PLA)	PLA is a bioplastic derived from corn and can be safely disposed of without the use of special	N/A
Filament	hazardous material disposal procedures.	