

# SimuBone™ Bone Simulation Modeling Filament

EFFECTIVE DATE: 08/01/2021

**REVISION NUMBER: V1.0** 

# PRODUCT AND SUPPLIER INFORMATION

Product Identification: Product Name: SimuBone™ Chemical Name: Polylactic Acid (PLA)

Recommended Use: Additive manufacturing

Supplier Information:

3DXTECH LLC 9D4 36<sup>th</sup> Street, Suite B Grand Rapids, MI 49508 (USA) Phone (616) 970-2702 Email: INFO@3DXTECH Emergency Phone Number: (616) 214-7965

# 2 HAZARDS INDENTIFICATION

Regulation (EC) NO 1272/2008: Not classified as a dangerous product

Physical Hazards: None

OSHA Regulatory Status: This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

# 3 COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Concentration Range (%)
PLA Resin	9051-89-02	>85%
Remainder of formulation has been withheld as a trade secret.		

### 4 EMERGENCY FIRST AID

Eyes: Flush with water. Consult physician if symptoms persist.

Skin Contact: Wash with soap and water. For thermal burns from molten polymer, immediately flush with cold water. Do not attempt to remove cooled polymer from skin. Obtain medical attention.

Inhalation: Leave exposed area and seek fresh air. If irritation persists seek medical attention.

Ingestion: Not likely due to nature of product. If ingested, drink plenty of water. Do not induce vomiting. Consult a physician if symptoms persist.

### 5 FIRE AND EXPLOSION HAZARD

Extinguishing Media: Water spray, dry powder, and foam. Carbon dioxide (CO2)

Safety Precautions for Persons exposed to products of combustion should wear NIDSH approved self contained breathing apparatus and full protective equipment.

### 6 ACCIDENTAL RELEASE MEASURES

Spill or release: Clean up by vacuuming or sweeping to prevent falls. If molten, allow material to cool and place into an appropriate container for disposal.

### 7 HANDLING AND STORAGE CONDITIONS

Precautions to be taken in handling and storage: Store in a dry, sprinkler equipped warehouse. Product as shipped is not a combustible dust. Mechanical handling can cause the formation of dusts. To reduce the risk for dust explosion do not permit dust to accumulate.

Waste Disposal: Dispose in accordance with applicable federal, state and local regulations.

# 8 EXPOSURE AND PROTECTION INFORMATION

Exposure Limits: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Respitory Protection: A NIOSH approved respirator is recommended for protection against processing polymeric fumes, or from dust generated from grinding, sanding, or sawing operations.

Ventilation: Local exhaust is preferred.

Protection Gloves: : Canvas or cotton gloves are recommended.

Eye Protection: Safety glasses with side shields are recommended.

Other: No protective equipment is needed under normal use conditions.

# 9 PHYSICAL/CHEMICAL DATA

Form: Solid Appearance: Tan Filament Odor: Slight Freezing Point: N/A Solubility in Water: Insoluble Specific Gravity: >1 % Volatile: N/A Boiling Range: N/A Vapor Pressure (MM HG): Negligible Melting Point: This product does not possess a specific melting point. It softens gradually over a wide temperature range.

Note: Those physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

### 10 STABILITY AND REACTIVITY

Polymerization conditions to avoid: None

Chemical Stability: Stable under normal conditions

Conditions to avoid: Incompatible materials, including strong oxidizing agents

Hazardous decomposition byproducts: Thermal decomposition can yield intense heat, dense smoke, phenols, hydrogen cyanide, carbon dioxide, and carbon monoxide.

### 11 TOXICOLOGICAL INFORMATION

No specific toxicological information is available.

# 12 ECOLOGICAL INFORMATION

No specific ecological information is available.

13 DISPOSAL

Waste Disposal: Waste or unused product may be discarded in accordance with state, federal, and local regulations.

#### 14 TRANSPORT INFORMATION

Land Transport (DDT): Non-Regulated Sea Transport (IMDG): Non-Regulated Air Transport (ICAD/IATA): Non-Regulated

#### 15 REGULATORY INFROMATION

TSCA: Complies REACH: Complies EINECS/ELINCS: N/A DSL/NDSL: Complies PICCS: N/A ENCS: Complies IECSC: Complies AICS: Complies KECL: Complies

# 16 MISCELLANEOUS INFORMATION

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