Safety Data Sheet (SDS)

1. Identification

Product Name: 3D Printing Granular Cartridges – PCL/HA
Chemical Composition: Polycaprolactone (PCL) and Hydroxyapatite (HA)
CAS Numbers: 29005-54-3
Intended Use: For research applications in tissue engineering and regenerative medicine.
Manufacturer Information:

Name: Tissuerex
Address: Hermann-Löns-Straße, Baiersdorf, 91083, Deutschland
Email: tissurex@gmail.com

2. Hazard Identification

Classification: Non-hazardous material under normal conditions of use.
Signal Word: Not applicable.
Hazards:

- Not classified as dangerous for human health or the environment.

Precautionary Statements:

- Avoid inhalation of fine particles during processing.
- Not for oral consumption.

3. Composition/Information on Ingredients

Polycaprolactone (PCL): Biocompatible polymer.
Hydroxyapatite (HA): Osteoconductive bioceramic.

4. First-Aid Measures

Inhalation: If inhaled as fine particles, remove to fresh air. Seek medical attention if symptoms persist.
Skin Contact: Wash with soap and water. Seek medical attention if irritation occurs.
Eye Contact: Rinse eyes thoroughly with water. Seek medical advice if irritation persists.
Ingestion: Do not ingest. If swallowed, seek medical advice immediately.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water spray, foam, dry chemical, or CO_2.
Special Hazards: Combustion may produce carbon monoxide (CO) and carbon dioxide (CO_2).
Protective Equipment: Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions: Avoid dust formation. Use proper ventilation.
Cleanup Methods: Sweep or vacuum spilled material and place in a suitable disposal container.

7. Handling and Storage

Handling:

- Use in a well-ventilated area.
- Avoid inhalation of dust and contact with eyes or skin.
- Do not ingest.

Storage:

- Store in a cool, dry place away from direct sunlight.
- Keep container tightly closed.

8. Exposure Controls/Personal Protection

Exposure Limits: Not applicable.

Personal Protective Equipment (PPE):

- Eye Protection: Safety glasses.
- Skin Protection: Protective gloves.
- Respiratory Protection: Dust mask during processing.

9. Physical and Chemical Properties

Appearance: Solid, white spherical granules.

Odor: Odorless.

pH: Neutral.

Melting Point: ~60°C (PCL).

Solubility: Insoluble in water.

10. Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Excessive heat, open flames, and moisture.

Incompatible Materials: Strong oxidizing agents.

11. Toxicological Information

Acute Toxicity: Non-toxic under normal conditions.

Skin Irritation: Not expected to cause irritation.

Eye Irritation: Not expected to cause irritation.

12. Ecological Information

Environmental Impact: Biodegradable under natural conditions.

Aquatic Toxicity: Not expected to pose significant hazards.

13. Disposal Considerations

Dispose of waste material in accordance with local, regional, and national regulations.

14. Transport Information

UN Number: Not applicable.

Transport Hazard Class: Not classified as hazardous for transport.

15. Regulatory Information

Compliant with local and international regulations for non-hazardous materials.

16. Other Information

Revision Number: 1.0

Disclaimer: The information provided is based on current knowledge and is intended to describe the product for health, safety, and environmental purposes only.