

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



SAFETY DATA SHEET (MSDS / SDS)

POLYLACTIC ACID (PLA) - CRYOGENICALLY GROUND POWDER

1. Identification of the Substance and of the Company

Item	Details
Product Name	Polylactic Acid (PLA) - Cryogenically Ground Powder
Chemical Name	Polylactic Acid / Polylactide
CAS No.	9051-89-2
Recommended Use	Fine polymer powder for industrial processing and application evaluation
Uses Advised Against	Food, cosmetic, pharmaceutical, medical or other regulated use unless the base resin and finished powder are specifically approved
Supplier	Polymer Add (Thailand) Co., Ltd.
Office Address	106 Chalermprakiat R.9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok 10250, Thailand
Factory Address	188/3 Moo 8, Bangpu Mai, Mueang Samut Prakan, Samut Prakan 10280, Thailand
Telephone	+66 2 328 3023 / +66 80 453 1391
Email	contact@polymeradd.co.th
Emergency Contact	Contact local emergency services and the company telephone listed above

2. Hazards Identification

Item	Description
GHS Classification	Based on available information, the product is not classified as hazardous
Signal Word	None
Hazard Statements	None required under GHS classification
Other Hazards	Fine combustible organic powder. Airborne dust may form an explosive mixture with air. Dust may cause mechanical irritation to eyes and respiratory tract. Molten polymer can cause severe thermal burns.

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
Polylactic Acid / Polylactide resin	9051-89-2	Approximately 100%; base-resin formulation may be grade-dependent

4. First Aid Measures

Exposure Route	Measures
Inhalation	Move the person to fresh air. Obtain medical attention if coughing, irritation or breathing discomfort persists.
Skin Contact	Wash with soap and water. For contact with molten polymer, cool immediately with water; do not remove adhered material. Obtain medical attention.
Eye Contact	Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if easy to do. Seek medical advice if irritation persists.

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Ingestion	Rinse mouth. Do not induce vomiting. Obtain medical advice if symptoms occur.
Most Important Effects	Dust irritation; thermal burns from molten material.

5. Firefighting Measures

Item	Description
Suitable Extinguishing Media	Water spray or fog, foam, dry chemical or carbon dioxide.
Specific Hazards	Combustible solid. Fine dust dispersed in air may create a dust-explosion hazard. Avoid generating or dispersing dust.
Hazardous Combustion Products	Carbon monoxide, carbon dioxide, smoke and irritating organic decomposition products.
Firefighter Protection	Wear self-contained breathing apparatus and full protective clothing. Cool exposed containers with water spray.

6. Accidental Release Measures

Item	Description
Personal Precautions	Eliminate ignition sources. Avoid breathing dust and prevent dust clouds. Wear suitable personal protective equipment.
Environmental Precautions	Prevent release to drains, waterways and the environment. Collect spilled material for reuse or disposal.
Cleanup Methods	Use an explosion-protected industrial vacuum where appropriate, or carefully sweep without raising dust. Place in a labelled container.

7. Handling and Storage

Item	Recommendation
Handling	Use adequate ventilation. Avoid dust formation, inhalation and contact with ignition sources. Ground and bond equipment where combustible dust could accumulate.
Storage	Keep tightly closed in a cool, dry and well-ventilated area. Protect from moisture, heat, sparks, flames and direct sunlight.
Processing	Thermal processing can produce fumes. Avoid overheating and provide local exhaust ventilation.

8. Exposure Controls / Personal Protection

Control	Recommendation
Occupational Exposure	No product-specific exposure limit established. Observe applicable local limits for nuisance or particulates not otherwise classified.
Engineering Controls	Provide general and local exhaust ventilation. Control dust accumulation and electrostatic discharge.
Eye Protection	Safety glasses with side shields; use goggles where dust levels are high.

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Skin Protection	Protective gloves and normal work clothing. Use heat-resistant gloves when handling hot or molten material.
Respiratory Protection	Use an approved particulate respirator when ventilation is inadequate or dust exposure may exceed applicable limits.
Hygiene	Wash hands after handling. Do not eat, drink or smoke in processing areas.

9. Physical and Chemical Properties

Property	Typical Value / Description
Physical State	Solid powder
Appearance	White to off-white
Odour	Characteristic / practically odourless
pH	Not applicable
Melting Range	Approximately 145-180 deg C; grade-dependent
Glass-transition Temperature	Approximately 55-65 deg C; grade-dependent
Density	Approximately 1.20-1.30 g/cm ³
Water Solubility	Insoluble
Flammability	Combustible solid; finely divided powder can present a dust-explosion hazard
Flash Point / Auto-ignition	Not determined for this powder
Particle Size	Grade- and process-dependent; refer to the current TDS/COA

10. Stability and Reactivity

Item	Description
Reactivity / Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Excessive heat, open flames, sparks, electrostatic discharge, moisture during thermal processing and airborne dust clouds.
Incompatible Materials	Strong oxidising agents and strong acids or bases.
Hazardous Decomposition	Thermal decomposition or combustion may generate carbon oxides, smoke and irritating organic vapours.
Hazardous Polymerisation	Not expected under normal conditions.

11. Toxicological Information

Item	Information
Likely Routes of Exposure	Inhalation of dust and eye or skin contact.
Acute Effects	Low acute toxicity expected. Dust may cause temporary mechanical irritation.
Sensitisation	No information indicating classification.
Chronic Effects	No information indicating classification for carcinogenicity, mutagenicity or reproductive toxicity.
Molten Material	May cause severe thermal burns.

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12. Ecological Information

Item	Information
Ecotoxicity	No product-specific data available; not expected to be acutely toxic in solid form.
Persistence / Degradability	PLA degradation depends strongly on temperature, moisture, microorganisms and disposal conditions. Industrial compostability must not be assumed without grade-specific certification.
Bioaccumulation / Mobility	No product-specific data available. Insoluble solid particles may persist in the environment if released.

13. Disposal Considerations

Recover or recycle clean material where practical. Dispose of product and contaminated packaging through an authorised facility in accordance with national and local regulations. Do not discharge powder to drains or waterways. Do not make compostability claims without certification for the applicable grade and disposal system.

14. Transport Information

Mode / Item	Classification
UN Number	Not assigned
ADR / RID	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
IATA	Not regulated as dangerous goods
Transport Precaution	Keep dry and protect packaging from damage and ignition sources.

15. Regulatory Information

The finished powder is not classified as hazardous based on available information. Regulatory, inventory, food-contact, cosmetic, pharmaceutical, medical and compostability status depends on the specific base PLA resin and intended market. Customers must obtain and review the base-resin supplier's current regulatory documentation.

16. Other Information

Item	Details
SDS Version	1.0
Date of Issue	September 2026
Review Date	September 2028
Abbreviations	GHS: Globally Harmonized System; ADR/RID: European road/rail transport; IMDG: Maritime transport; IATA: Air transport

Disclaimer: This document is based on available information for generic PLA resin and the additional physical hazards created by fine powder handling. It is provided in good faith as safety guidance and does not replace the current SDS and regulatory documents of the selected base-resin manufacturer. Users are responsible for determining suitability and compliance under their actual conditions of use.