

1. Product description

Product name: Greemas® 90401. A PLA-based blend composite.

2. Composition/Information on ingredients

Chemical Name	CAS#	Content
Polylactide	9051-89-2	> 85%
Poly(butylenes adipate-co-terephthalate)	55231-08-8	< 10%
Styrene-Ethylene/Butylene-Styrene Block Copolymer	66070-58-4	> 5%

3. Possible hazards(Potential Health effects)

Eye contact	Contact with eyes may cause irritation.
Skin contact	Exposure to molten resin may cause thermal burns.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Inhalation	Dust and process vapors may cause respiratory tract irritation. Low hazard for usual industrial or commercial handling.

4. First aid measures

Eye contact	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open. Get medical attention.
Skin contact	If molten material comes in contact with skin, cool under cold water or a running stream of water for at least 15 minutes. DO NOT attempt to remove the material from the skin. Removal could result in severe tissue damage. Get medical attention.
Ingestion	Drink water as a precaution. Get medical attention.
Inhalation	Move to fresh air and summon medical help if respiratory irritation develops or if breathing becomes difficult.

5. Accidental release measures

Flash point	None.
Flammable limits	Not applicable.
Extinguishing media	Use foam, carbon dioxide, or water spray when fighting fires involving this material.
Hazardous decomposition products	Burning produces obnoxious and toxic fumes, aldehydes, carbon monoxide and carbon dioxide.
Fire fighting procedures-special	Use self-contained breathing apparatus.

6. Accidental release measures

Methods for cleaning up	Vacuum or sweep up material and place in a disposal container.
Personal precautions	Pellets or powder remained on ground may cause slipping.
Environmental precautions	Keep pellets out of waterways.

7. Handling and storage

General Procedures	Keep away from heat, sparks and flame.
Handling	Prevent from fire around handling area. Maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipments as air transferring pipes, bag filters and hoppers.
Storage	Store in cool and dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area. No special restrictions on storage with other products.

8. Exposure controls and Personal protection

Engineering controls	Provide adequate local exhaust ventilation to exclude dust, fumes and gases.
Personal protective equipment	
✓ Eye protection	Wear safety glasses with side shields (or goggles).
✓ Skin and hand protection	When handling or processing resins at elevated temperatures or in a molten state, wear protective clothing over the skin to prevent contact. Wear suitable gloves.
✓ Respiratory protection	Respirator must be worn if exposed to dust or cleaning molding machine. For emergencies or instances when the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

9. Physical and chemical properties

Appearance	White opaque pellets.
Physical state	Solid
Odor	Sweet
Melting point	Softening above 150 °C
Specific gravity	1.20 ~ 1.30
Water solubility	Insoluble

10. Stability and reactivity

Stability	Stable and non-reactive under normal handling and storage conditions.
Condition to avoid	Keep away from heat, Sparks and flame.
Polymerization	Product will not undergo polymerization.
Hazardous decomposition products	Burning produces obnoxious and toxic fumes, aldehydes, carbon monoxide and carbon dioxide.

11. Toxicological information

Irritation	Product dust and fumes or vapors generated from decomposing resin may be irritant to eyes, skin and respiratory tract.
Acute toxicity	There were no target organ effects noted following ingestion or dermal exposure in animal studies.
Long term toxicity	Did not cause skin allergic reactions in skin sensitization studies using guinea pigs.
Mutagenic effects	Not determined.
Additional information	
✓ Skin	LD50/dermal/rabbit > 2000 mg/Kg
✓ Ingestion	LD50/oral/rat > 5000 mg/Kg

12. Ecological information

Mobility	Not determined.
Bioaccumulation	Does not bioaccumulate. Inherently biodegradable.
Ecotoxicity effects	EC50/72hr/algae > 1100 mg/L

13. Disposal considerations

Controlled incineration or landfill according to local, state or national laws and regulations concerning health and pollution. Do not contaminate ditches, ponds or waterways with chemicals or used container.

14. Transport information

DOT proper shipping name	None.
Hazard class	Not regulated.
DOT class	None.
DOT number	None.
IATA	Not regulated.
IMDG	Not regulated.

15. Regulatory information

RCRA status	Not a hazardous waste under RCRA (40 CFR 261).
CERCLA status	Not listed.
SARA/TITLE III - TOXIC CHEMICALS LIST	This product does not contain a toxic chemical for routine annual toxic chemical release reporting under sec. 313 (40 CFR 372).

16. Other information

Label information	Greemas® Bio Plastics.
Last revision date	2012/4/13