



# MATERIAL SAFETY DATA SHEET

PROTO-PASTA CARBON REINFORCED PLA

PRINT DATE: 7/22/2014

DOC VERSION: 1

REV DATE:

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** Proto-pasta Carbon Reinforced PLA  
**SYNONYMS:** Proto-pasta CFPLA  
**PRODUCT CODES:**

**MANUFACTURER:** Proto Plant  
**ADDRESS:** 5601 East 18Th Street #102  
Vancouver, WA 98661

**EMERGENCY PHONE:** 503-877-5268  
**OTHER CALLS:** 503-877-5268  
**HOME PAGE:** www.protoplant.com

**CONTACTS:** Dustin Cram – Chief Engineer                      dustin@protoplant.com  
Sara Shepherd – MSDS Coordinator                      info@protoplant.com

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## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENTS	CAS NO.	% WT	SARA 313 REPORTABLE
Poly lactide resin	9051-89-2		None
Carbon Fiber (derived from polyacrylonitrile)	7440-44-0		None

**SECTION 2 NOTES:** All components of this product are either listed on or exempt from listing on the TSCA Inventory. All ingredients in quantities > 1.0% (0.1% for carcinogens) that are potentially hazardous per OSHA definitions.

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## SECTION 3: HAZARDS IDENTIFICATION

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### EMERGENCY OVERVIEW:

This is a polymeric compound. All ingredients are encapsulated by the polymer and present no likelihood of exposure under normal conditions of processing and handling.

### POTENTIAL HEALTH EFFECTS

**EYES:** Solid/dust may cause irritation due to mechanical action.  
Processing fumes may cause irritation.

**SKIN:** Excessive handling may result in slight skin irritation caused by fiber abrasion.  
Contact with molten material may cause thermal burns.  
Processing fumes may cause irritation.

**INGESTION:** Not a probable route of exposure. Obtain immediate medical attention.

**INHALATION:** Processing fumes may cause irritation to the respiratory tract.

**CHRONIC HEALTH HAZARDS:** None known for this compound.

**SECTION 3 NOTES:** Low hazard for usual industrial or commercial handling.



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### SECTION 4: FIRST AID MEASURES

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**EYES:** Flush with water. Consult physician if symptoms persist.

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

**INGESTION:** Obtain immediate medical attention. For a poison emergency in the U.S. call 1-800-222-1222.

**INHALATION:** Leave exposed area and seek fresh air. If irritation persists, seek medical attention.

**NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** Treat symptomatically.

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### SECTION 5: FIRE-FIGHTING MEASURES

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**FLAMMABILITY CLASS:** 1      **FLASH POINT:** None      **LEL:** None      **UEL:** None

**EXTINGUISHING MEDIA:**

Foam. Water. Carbon Dioxide (CO<sub>2</sub>). Dry Chemical. Alcohol resistant foams are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

**SPECIAL FIREFIGHTING PROCEDURES:**

Persons exposed to products of combustion should wear NIOSH approved self contained breathing apparatus and full protective equipment.

**UNUSUAL FIRE & EXPLOSION HAZARDS:**

This compound has no unusual fire or explosion hazards.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

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**PERSONAL PRECAUTIONS:**

Avoid dust formation. Avoid contact with skin and eyes. Sweep up to prevent slipping hazard.

**ENVIRONMENTAL PRECAUTIONS:**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

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### SECTION 7: HANDLING AND STORAGE

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**HANDLING AND STORAGE:**

Store in a cool, dry place. 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. **--CONTINUED--**

**OTHER PRECAUTIONS:**

Proper purging and shut down procedures should be followed to avoid overheating of this compound. Product as shipped is not a combustible dust.



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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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**ENGINEERING CONTROLS:** Ensure adequate ventilation on workstation. Avoid dust build up.

**VENTILATION:** Local exhaust is preferred.

**RESPIRATORY PROTECTION:** NIOSH approved respirator is recommended for protection against processing fumes, or from dust generated from grinding, sanding, or sawing operations.

**EYE PROTECTION:** Safety glasses with side shields are recommended.

**SKIN PROTECTION:** Impervious clothing. For prolonged handling, canvas or cotton gloves are recommended.

**WORK HYGIENIC PRACTICES:** Wash hands and dry hands thoroughly before and after handling product.

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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Solid, black, textured, filament strand

**ODOR:** No odor.

**PHYSICAL STATE:** Solid

**VOLATILES:** volume %: N/AP      weight %: N/AP

**PH:** Not applicable

**DENSITY:** 1.24 g/cc

**DECOMPOSITION TEMPERATURE:** 482F (250C)

**MELTING POINT/RANGE:** Not determined

**WATER SOLUBILITY:** Insoluble

**SOLUBILITY IN OTHER SOLVENTS:** None known

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### SECTION 10: STABILITY AND REACTIVITY

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**STABLE**  
X

**UNSTABLE**

**STABILITY:** Stable under recommended storage conditions

**CONDITIONS TO AVOID:** Temperatures above 446F (230 °C).

**MATERIALS TO AVOID:** Oxidizing agents. Strong bases.

**Hazardous decomposition products:** Burning produces obnoxious and toxic fumes. Aldehydes. Carbon monoxide (CO). carbon dioxide (CO<sub>2</sub>). Nitrogen oxide (Nox).

**Polymerization:** Not applicable



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### SECTION 11: TOXICOLOGICAL INFORMATION

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**TOXICOLOGICAL INFORMATION:** No specific toxicological information is available.

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### SECTION 12: ECOLOGICAL INFORMATION

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**ECOLOGICAL INFORMATION:** Ecological data not available.

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### SECTION 13: DISPOSAL CONSIDERATIONS

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**WASTE DISPOSAL METHOD:** In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. For recycling, contact local waste disposal centers.

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### SECTION 14: TRANSPORT INFORMATION

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**SECTION 14 NOTES:** Not regulated under the US Department of Transportation.

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### SECTION 15: REGULATORY INFORMATION

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**This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right To Know Act of 1986 and of 40 CFR 372: NONE**

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### SECTION 16: OTHER INFORMATION

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