



MATERIAL SAFETY DATA SHEET

PROTO-PASTA HIGH TEMPERATURE PLA

DOC VERSION: 1

PRINT DATE: 03/01/2016

REV DATE:

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Proto-pasta High Temperature PLA
SYNONYMS: Proto-pasta HTPLA
PRODUCT CODES: HTP2XXXX-XXX

RECOMMENDED USE: For use in 3D printers at recommended temperatures

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

SECTION 2: HAZARDS IDENTIFICATION

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.

GHS-US CLASSIFICATION

This product is not classified under GHS

SIGNAL WORD: NONE
HAZARD STATEMENT: NONE
PRECAUTIONARY STATEMENT: NONE

HAZARDS THAT DO NOT RESULT IN CLASSIFICATION

EYES: Solid/dust may cause irritation due to mechanical action. Dust will not be generated under normal use conditions.

SKIN: Filament is not likely to cause irritation.
Contact with molten material may cause thermal burns.

BURNS: Molten material will cause thermal burns, avoid contact.

INHALATION: Processing fumes may cause irritation to the respiratory tract, use in well ventilated areas only.

CHRONIC HEALTH HAZARDS: None known for this compound.



MATERIAL SAFETY DATA SHEET

PROTO-PASTA HIGH TEMPERATURE PLA

DOC VERSION: 1

PRINT DATE: 03/01/2016

REV DATE:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NO.	% WT
Poly lactide resin	9051-89-2	>98
Colorant	N/A	<2

SECTION 4: FIRST AID MEASURES

EYES:

First Aid not likely required. 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.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABILITY CLASS: 1

EXTINGUISHING MEDIA:

Foam. Water. Carbon Dioxide (CO₂). Dry Chemical. Alcohol resistant foams are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

UNSUITABLE EXTINGUISHING MEDIA:

None Known

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Sweep up scrap and store material neatly to prevent slipping hazard.



MATERIAL SAFETY DATA SHEET

PROTO-PASTA HIGH TEMPERATURE PLA

DOC VERSION: 1

PRINT DATE: 03/01/2016

REV DATE:

ENVIRONMENTAL PRECAUTIONS:

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

METHODS FOR CLEANING UP:

Cut filament into short pieces to prevent tripping. Dispose of in suitable containers.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS:

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

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Ensure adequate ventilation on workstation. Avoid dust build up.

VENTILATION:

Local exhaust is preferred.

RESPIRATORY PROTECTION:

A 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Smooth, thin strand

ODOR: Light sweet odor during processing, no odor at room temperature

ODOR THRESHOLD: Not determined

pH: Not Applicable

MELTING RANGE: 150C-180C

BOILING POINT/RANGE: Not applicable



MATERIAL SAFETY DATA SHEET

PROTO-PASTA HIGH TEMPERATURE PLA

DOC VERSION: 1

PRINT DATE: 03/01/2016

REV DATE:

FLASH POINT: Not Determined

EVAPORATION RATE: Not determined

FLAMMABILITY: Combustible if heated

UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not Determined

VAPOR PRESSURE: Not Determined

VAPOR DENSITY: Not Determined

DENSITY: 1.24 g/cc

WATER SOLUBILITY: Insoluble

SOLUBILITY IN OTHER SOLVENTS: Not determined

PARTITION COEFFICIENT: N-OCTANOL/WATER: Not Determined

AUTO-IGNITION TEMPERATURE: 300C-400C

DECOMPOSITION TEMPERATURE: 482F (250C)

VISCOSITY: Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Stable when stored as recommended

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 (CO₂).

Polymerization: Not applicable

SECTION 11: TOXICOLOGICAL INFORMATION

PRINCIPLE ROUTES OF EXPOSURE: Eye contact, Skin contact, Inhalation, Ingestion.

ACCUTE TOXICITY: None Known

SKIN CORROSION/IRRITATION: Contact with dust/fumes may cause irritation

SERIOUS EYE DAMAGE/IRRITATION: Contact with dust/fumes may cause irritation

RESPIRATORY OR SKIN SENSITIZATION: None Known



MATERIAL SAFETY DATA SHEET

PROTO-PASTA HIGH TEMPERATURE PLA

DOC VERSION: 1

PRINT DATE: 03/01/2016

REV DATE:

GERM CELL MUTAGENICITY: Not Determined

CARCINOGENICITY: None Known

REPRODUCTIVE TOXICITY: Not Determined

STOT-SINGLE EXPOSURE: Not Determined

STOT-SINGLE EXPOSURE: Not Determined

ASPITIATION HAZARD: None Known

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY EFFECTS: Not Determined

DEGRADABILITY AND PERSISTENCE: Not Determined

BIOACCUMULATIVE POTENTIAL: Not Determined

MOBILITY IN SOIL: Not Determined

SECTION 13: DISPOSAL CONSIDERATIONS

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.

SECTION 14: TRANSPORT INFORMATION

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

SECTION 15: REGULATORY INFORMATION

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

SECTION 16: OTHER INFORMATION

DISCLAIMER: ProtoPlant believes that the information contained herein is accurate as of the date hereof. HOWEVER, NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREIN AS TO THE INFORMATION PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. The health and safety precautions contained herein may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. Nothing contained herein shall be construed as a license for the use of any product in a manner that would infringe existing patents.