

HTPCxxxx-BRA Safety Data Sheet Date of issue: 5-Oct-18

# Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier Product form Filament Trade name Brass Composite HTPLA Product code HTPCxxxx-BRA

**1.2 Relevant identified uses of the substance or mixture and uses advised against** For use in 3D printers at recommended temperatures

## 1.3 Details of the supplier of the safety data sheet

Proto Plant 12001 NE 60<sup>th</sup> Way, B-2 Vancouver, WA 98682 www.proto-pasta.com

Emergency telephone number: 503-877-5268

# Section 2: Hazards identification

## 2.1 Classification of the substance or mixture No classified

2.2 Label elements

No labeling applicable

- 2.3 Other hazards No additional information applicable
- 2.4 Unknown acute toxicity (GHS US) Not applicable

# Section 3: Composition/Information on ingredients

#### 3.1 Substances/Mixtures

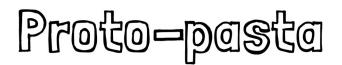
Chemical Name	CAS No	Weight %	
Copper	7440-50-8	<44.1	
Zinc	7440-66-6	<15.9	
Polyactide resin	9051-89-2	>37.4	
Polymer	n/a	<2.6	

## Section 4: First-aid measures

#### 4.1 Description of first-aid measures

#### First-aid measures after

Inhalation	Most to fresh air. If irritation persists, seek medical attention.
Skin contact	Wash with soap and water. For thermal burns, immediately flush with cold water. Do not attempt to remove polymer from skin. Obtain medical attention.
Eve contact	First aid not likely required. Flush with water. Consult physician is symptoms
,	persist.



Ingestion

Obtain immediate medical attention. For poison emergency in the US, call 1-800-222-1222

- **4.2 Most important symptoms and effects, both acute and delayed** No additional information available
- **4.3 Indication of any immediate medical attention and special treatment needed** Treat symptomatically

## Section 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing data Unsuitable extinguishing data Water spray, dry powder, foam None known

**5.2 Special hazards arising from the substance or mixture** Burning produces obnoxious and toxic fumes

### 5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear

## Section 6: Accidental release measures

## 6.1 Personal precautions, protective equipment, and emergency procedures

#### 6.1.1 For non-emergency personnel

Sweep up to prevent slipping hazard

6.1.2 For emergency responders Wear protective gear

#### 6.2 Environmental precautions

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

## 6.3 Methods and material for containment and cleaning up

Clean up promptly with scoop or vacuum. Sweep up and shovel into suitable containers for disposal.

**6.4 Reference to other sections** No additional information available

# Section 7: Handling and Storage

## 7.1 Precautions for safe handling

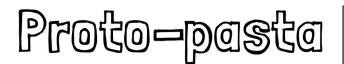
Precautions for safe handling	Ensure good ventilation of the work station. Wear personal
	protective equipment.
Hygiene measures	Do not eat, drink, or smoke when using this product. Always wash
	hands after handling the product.

#### 7.2 Conditions for safe storage, including any incompatibles

Store in a well-ventilated place. Keep cool.

#### 7.3 Specific end use(s)

No additional information available



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# Section 8: Exposure controls/personal protection

#### 8.1 Control parameters

Where reasonably practicable, use local exhaust ventilation and good general extraction. Provide appropriate exhaust ventilation in places where dust is formed.

#### 8.2 Exposure controls

Appropriate engineering controls	Ensure good ventilation of the work station
Hand protection	Protective gloves
Eye protection	Safety glasses
Skin and body protection	Impervious clothing
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment
Environmental exposure controls	Avoid release into the environment

## Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

AppearanceMonofilament plastic, thin strandColorBrassOdorLight, sweet odor during processing; none at room temperatureOdor thresholdNot applicable
OdorLight, sweet odor during processing; none at room temperatureOdor thresholdNot applicable
Odor threshold Not applicable
pH Not applicable
Melting point 185-215C
Freezing point Not applicable
Boiling point Not applicable
Flash point Not determined
Relative evaporation rate Not applicable
Flammability Combustible if heated
Explosion limits Not applicable
Explosive properties Not applicable
Oxidizing properties Not applicable
Vapor pressure Not determined
Relative density 2.5 g/cc
Relative vapor density at 20C Not determined
Solubility Insoluble
Log Pow Not determined
Log Kow Not determined
Auto-ignition temperature 300-400C
Decomposition temperature 250C
Viscosity Not applicable
Viscosity, kinematic Not applicable
Viscosity, dynamic Not applicable

# Proto-pasta

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#### 9.2 Other information

No other information available

# Section 10: Stability and reactivity

## 10.1 Reactivity

Stable when stored as recommended

10.2 Chemical Stability
Stable when stored/used as recommended
10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

Temperatures above 230C

10.5 Incompatible materials

Oxidizing agents, strong acids, strong bases.

## 10.6 Hazardous decomposition products

Burning produces obnoxious and toxic fumes. Aldehydes, carbon monoxide, carbon dioxide

# Section 11: Toxicological information

## 11.1 Information on toxicological effects

Acute toxicity	None known
Skin corrosion/irritation	Contact with molten material may cause thermal burns
Serious eye damage/irritation	Contact with dust/fumes may cause irritation
Respiratory or skin sensitization	None known
Germ cell mutagenicity	Not determined
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not determined
STOT-repeated exposure	Not determined
Aspiration hazard	None known

# Section 12: Ecological information

# 12.1 Toxicity

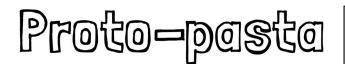
Not determined

- 12.2 Persistence and degradability Not determined
- **12.3 Bioaccumulative potential** Not determined

#### **12.4 Mobility in soil** Not determined

- **12.5** Results of PBT and vPvB assessment Not applicable
- **12.6** Other adverse effects

No other information available



## Section 13: Disposal considerations

#### 13.1 Waste treatment methods

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

Not regulated under the US Department of Transportation

## Section 15: Regulatory information

15.1 US Federal regulations

SARA 313: None

# IARC: None

**15.2** International regulations

Components are in compliance and/or are listed

15.3 US State regulations Prop 65: None Right to Know Hazardous Substance List-New Jersey: None

## Section 16: Other information

Prepared by	Protoplant Inc
<b>Reason for Revision</b>	GHS compliance
<b>Revision Date</b>	10/05/2018

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