

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 Bronze Composite HTPLA

Product code HTPCxxxx-BRO

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 60th 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	<42.3
Tin	7440-31-5	<17.7
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.

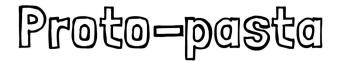
Skin contact Wash with soap and water. For thermal burns, immediately flush with cold

water. Do not attempt to remove polymer from skin. Obtain medical

attention.

Eye contact First aid not likely required. Flush with water. Consult physician is symptoms

persist.



Safety Data Sheet

Date of issue: 5-Oct-18

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 Water spray, dry powder, foam

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

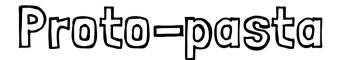
hands after handling the product.

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



Safety Data Sheet

Date of issue: 5-Oct-18

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

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

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Solid

Appearance Monofilament plastic, thin strand

Color Bronze

Odor Light, sweet odor during processing; none at room temperature

Odor threshold

pH

Not applicable

Melting point

185-215C

Freezing point

Boiling point

Flash point

Relative evaporation rate

Not applicable

Not determined

Not applicable

Flammability Combustible if heated

Explosion limits

Explosive properties

Oxidizing properties

Vapor pressure

Not applicable

Not applicable

Not determined

Relative density 2.5 g/cc

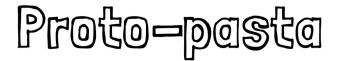
Relative vapor density at 20C Not determined

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



Safety Data Sheet

Date of issue: 5-Oct-18

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
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
STOT-single exposure
STOT-repeated exposure
Aspiration hazard
None known
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

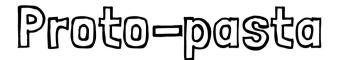
Not determined

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

No other information available



Safety Data Sheet

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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 byProtoplant IncReason for RevisionGHS complianceRevision Date10/05/2018

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