



SAFETY DATA SHEET - MatterHackers PRO Series Breakaway Support Material

Section 1: Identification

1.1 Product Identifiers

Product Name: **PRO Series Breakaway Support Material**

1.2 Relevant Identified Uses

3D printing filament. Material for FDM/FFF additive manufacturing.

1.3 Supplier Information

MatterHackers, Inc.
20321 Valencia Circle
Lake Forest, CA 92630
Email: support@matterhackers.com
Phone: +1 (949) 613-5838

Section 2: Hazard(s) Identification

2.1 Classification of the substance or mixture

This product is not considered hazardous by either the US 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Materials Information System (WHMIS 2015).

2.2 Label elements

Signal word: None. Hazard Statements: None. Precautionary Statements: None.

2.3 Other hazards

May form combustible dust concentrations in air if small particles are generated during further processing, handling, or by other means.

Section 3: Composition / Information on Ingredients

3.1 Substance

Poly(lactide (PLA) resin, CAS No. 9051-89-2, Concentration: 90-100%

Magnesium Silicate, CAS No. 14807-96-6, Concentration: 0-10%

Section 4: First Aid Measures

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Skin contact:

Adverse human health effects are not expected. Wash immediately with plenty of water. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot/molten polymer. Do not try to remove solidified material from the skin. Do not remove clothing if it is adhering to skin. Call a physician immediately.

Inhalation:

Move to fresh air. Call a physician immediately.

Ingestion:

Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, water, carbon dioxide (CO₂), dry chemical. Preferably extinguish with alcohol-resistant foam; if alcohol-resistant foam is not available, use normal foam.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Under fire conditions: Cool containers/tanks with water spray. Water mist may be used to cool closed containers. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (e.g., clearing dust surfaces with compressed air).

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Remove all sources of ignition. Sweep up to prevent slipping hazard.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Eliminate all ignition sources. Use explosion-proof equipment. Dust can be a fire or explosion hazard. Vacuum or sweep material and place in a disposal container. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Use personal protective equipment as required. Avoid contact with skin and eyes. Low hazard for usual industrial or commercial handling. After contact with molten product, cool the skin area rapidly with cold water. Do not try to remove solidified material from the skin. Do not remove clothing if it is adhering to skin. Avoid dust formation. May form combustible dust concentrations in air if small particles are generated during further processing, handling, or by other means.

7.2 Conditions for safe storage, including any incompatibilities

Store at temperatures not exceeding 50°C / 122°F. Keep cool. No special restrictions on storage with other products.

Precautions:

No special precautions required.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters

Magnesium Silicate (CAS 14807-96-6): OSHA PEL/TWA 20 mppcf (million particles per cubic foot, for material containing no asbestos and less than 1% quartz). ACGIH TLV/TWA 2 mg/m³, respirable fraction (for particulate matter containing no asbestos and less than 1% quartz).

This material can also generate Particulates Not Otherwise Classifiable (PNOC). The OSHA PEL/TWA for PNOC is 15 mg/m³ for total dust and 5 mg/m³ for the respirable fraction. The ACGIH TLV/TWA for PNOC is 10 mg/m³ for inhalable particulates and 3 mg/m³ for respirable particulates.

8.2 Exposure controls

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

Eye protection:

Safety glasses with side-shields; goggles.

Skin and body protection:

Impervious clothing.

Hand protection:

Preventive skin protection.

Hygiene measures:

Avoid contact with skin, eyes, and clothing.

Respiratory protection: A respirator must be worn if exposed to dust. Wear a respirator with a dust filter. Respiratory protection is needed if any of the exposure limits above are exceeded. Consult an industrial hygiene professional prior to respirator selection and use. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Special hazard:

Workers should be protected from the possibility of contact with molten material during fabrication. Contact with molten substance may cause severe burns to skin and eyes.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

- Physical state: Solid
 - Appearance: Pellets
 - Color: Off-white
 - Odor: Sweet
 - pH: Not applicable
 - Vapor pressure: Not determined
 - Vapor density: Not determined
 - Evaporation rate: Not determined
 - Partition Coefficient (n-octanol/water): Not determined
 - Density: 1.32 g/cc @ 20°C, 101.3 kPa
 - Decomposition temperature: 482°F / 250°C @ 101.3 kPa
 - Boiling point / boiling range: Not applicable
 - Melting point / melting range: Tg (Glass Transition Temperature) 131-140°F / 55-60°C @ 101.3 kPa
 - Autoignition temperature: Not determined
 - Flash point: Not determined
 - Flammability: Fine dust dispersed in air may ignite
 - Flammability Limits in Air: No information available
 - Water solubility: Insoluble
 - Solubility in other solvents: Not determined
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Section 10: Stability and Reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Conditions to avoid

Temperatures above 446°F (230°C). Avoid keeping resin molten for excessive periods at temperatures above 230°C. Prolonged exposure above 230°C will cause polymer degradation.

10.4 Materials to avoid

Oxidizing agents, strong bases.

10.5 Hazardous decomposition products

Burning produces obnoxious and toxic fumes: aldehydes, carbon monoxide (CO), carbon dioxide (CO₂).

10.6 Possibility of hazardous reactions

None under normal use conditions.

10.7 Polymerization

Not applicable.

Section 11: Toxicological Information

Principal routes of exposure:

Eye contact, skin contact, inhalation, ingestion.

Acute toxicity, skin, ingestion:

No data is available on the product itself.

Target organ effects:

Not determined.

Local effects:

Product dust may be irritating to eyes, skin, and the respiratory system. Resin particles, like other inert materials, are mechanically irritating to eyes. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Specific effects:

May cause skin irritation and/or dermatitis. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat, and cough. Burning produces irritant fumes.

Long term toxicity:

No data available.

Mutagenic effects, Reproductive toxicity:

No data is available on the product itself.

Carcinogenic effects:

Component(s) of this product are listed as suspected carcinogens by IARC, NTP, or OSHA. Magnesium Silicate (CAS 14807-96-6) – IARC group: inhaled talc not containing asbestos or asbestiform fibers is Group 3 (not classifiable as to carcinogenicity in humans); talc-based body powder for perineal dusting is Group 2B (possibly carcinogenic to humans). National Toxicology Program (NTP): not listed by NTP, ACGIH, OSHA, or NIOSH.

Further information:

No information available.

Section 12: Ecological Information**Ecotoxicity effects:**

No data is available on the product itself.

Persistence and degradability:

No data is available on the product itself.

Bioaccumulation:

Not likely to bioaccumulate.

Mobility:

No data available.

Section 13: Disposal Considerations

Waste from residues / unused products:

Dispose of in accordance with local and national regulations. Should not be released into the environment. Do not contaminate ponds, waterways, or ditches with chemical or used container. Contact manufacturer.

Contaminated packaging:

Empty remaining contents. Do not re-use empty containers. Empty containers should be transported/delivered using a registered waste carrier to local recyclers for disposal.

Section 14: Transport Information

Land transport (DOT): Non-Regulated

Sea transport (IMDG): Non-Regulated

Air transport (ICAO/IATA): Non-Regulated

Section 15: Regulatory Information

U.S. TSCA Inventory listing:

The components of this product listed in Section 3 are listed on the TSCA inventory. All naturally occurring components of this product are automatically included on the USEPA TSCA inventory per 40 CFR 710.4(b).

SARA Title III Rules:

Not Listed.

State Regulations:

MA, NJ, PA – component(s) of this product are listed.

California Proposition 65:

WARNING – This product can expose you to chemicals including Quartz, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Section 16: Other Information

Prepared for:

MatterHackers, Inc.

Contact: support@matterhackers.com

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