

Safety Data Sheet

In accordance with 29 CFR 1910.1200, ANSI Z400.1-2004, and ISO 11014-1: 1994.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: 3D-Fuel™ Glass Filled PLA **Product Code:** Glass Filled PLA
Product Use: A monofilament designed for 3D printing

Supplier: 3DomFuel Inc., 2222 7th Ave N, Fargo, ND, 58102 United States
Customer Information Center: (844) 333-3616 / sales@3dfuel.com

Emergency Telephone Numbers (24 hours a day): (844) 333-3616

2. HAZARDS IDENTIFICATION

Emergency Overview

CAUTION! May cause eye/skin irritation. Burning produces obnoxious and toxic fumes. Avoid contact with skin and eyes. Avoid formation of dust and aerosols

Appearance: Green, rough monofilament in its natural state.
Color: Minty Green
Physical State: Solid
Solid Odor: None

Potential health effects:

Eye contact: Contact with eyes may cause irritation.

Skin Contact: Substance may cause slight skin irritation.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Inhalation: Inhalation of dust may cause shortness of breath, tightness of the chest, and a sore throat and cough. Low hazard for usual industrial or commercial handling.

Target Organ Effects: There were no target organ effects noted following ingestion or dermal exposure in animal studies.

Sensitization: Did not cause sensitization on laboratory animals

Specific Hazards: No information available

Flammability: Do not let dust collect

Environmental Precautions: Not determined

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization: Compound of biodegradable polymers

CAS Number: Not applicable (proprietary blend of non-hazardous chemicals)

EINECS Number: Not defined

EG Identification Number: Not defined

Dangerous Components: None

Form: Filament

Odor: None at room temperature

4. FIRST AID MEASURES

The information herein is given in good faith, but no warranty, express or implied, is made. Consult the company for further information.

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NOTICE REGARDING MEDICAL APPLICATION RESTRICTIONS: The company does not recommend any of its products, including samples, for use: (A) in any application which is intended for any internal contact with human body fluids or body tissues (B) as a critical component in any medical device that supports or sustains human life; and (C) specifically pregnant women or in any applications designed specifically to promote or interfere with human reproduction.



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

Skin Contact: Rinse immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer.

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.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Special Firefighting Procedures: Dry chemical and CO2 are not generally recommended for large fires due to their lack of cooling capacity which may allow re-ignition. Do not use water jet. Persons exposed to products of combustion should wear an approved self-contained breathing apparatus and full protective equipment.

Unusual Fire and Explosion Hazards: Product, as shipped, is not a combustible dust. Mechanical handling can cause the formation of dusts. Toxic and irritating fumes may be given off during burning. To reduce the risk for dust explosion, do not permit dust to accumulate.

Extinguishing Media: Dry chemical, water fog, carbon dioxide, alcohol foam

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. See Section 8. Remove all sources of ignition. 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.

Methods for Cleaning up: Shovel into suitable container for disposal.

7. HANDLING AND STORAGE

Safe Handling Advice: Product, as shipped, is not combustible dust. Mechanical handling can cause the formation of dusts. To reduce the risk for dust explosion do not permit dust to accumulate. If permitted to accumulate, these fines or dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent suspension, concentration or accumulation of fines or dusts in, or around, material handling systems. Ground all material handling and transfer equipment to dissipate build-up of static electricity. Proper purging and shut down procedures should be followed to avoid overheating of this compound.

Storage: Store in cool place. Keep at temperatures below 122F (50C). No special restrictions on storage with other products.

Precautions: No special precautions required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures: Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide appropriate exhaust ventilation at places where dust is formed.

Control Parameters: None

Personal Protective Equipment:

Eye Protection: Safety glasses with side-shields, goggles.

Skin and Body Protection: Impervious clothing

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Respiratory Protection: Respirator must be worn if exposed to dust. Wear respirator with dust filter. Respiratory protection is needed if any of the exposure limits in Section 2 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. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Hand Protection: Preventative skin protection.

Hygiene Measures: Avoid contact with skin, eyes, and clothing

Exposure Limits: See Section 2

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green, rough

Color: Green

Physical State: Solid

pH: Not applicable

Vapor Pressure: Not determined

Vapor Density: Not determined

Evaporation Rate: Not determined

Density: 1.40g/cc

Boiling Point/Range: Not applicable

Decomposition Temperature: Not applicable

Melting Point/Range: Not determined

Water Solubility: Insoluble

Solubility in other Solvents: None known

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions

Conditions to Avoid: Temperatures above 446F (230C)

Material to Avoid: Oxidizing agents. Strong bases.

Hazardous Decomposition Products: Burning obnoxious and toxic fumes. Aldehydes. Carbon monoxide (CO). Carbon dioxide (CO₂)

Polymerization: Not applicable

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Acute Toxicity: There were no target organ effects noted following ingestion or dermal exposure in animal studies.

Local Effects: May cause eye/skin irritation. Product dust may be irritating to eyes, skin, and respiratory system. Caused mild to moderate conjunctival irritation in eye irritation studies using rabbits. Caused very mild redness in dermal irritation studies using rabbits (slightly irritating). Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Long Term Toxicity: Did not cause skin allergic reactions in skin sensitization studies using guinea pigs.

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.

Mutagenic Effects: Not mutagenic in AMES Tests

Reproductive Toxicity: No data is available on the product itself

Carcinogenic Effects: No data is available on the product itself

Target Organ Effects: There were no target organ effects noted following ingestion or dermal exposure in animal studies.

12. ECOLOGICAL INFORMATION

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Mobility: No data available
Bioaccumulation: No Information
Ecotoxicity Effects: No data available

13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products: In accordance with local and national regulations. Do not contaminate ponds, waterways, or ditches with chemical or used containers. Contact manufacturer.

THE COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information on Ingredients).

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.

14. TRANSPORT INFORMATION

U.S. Department of Transportation (DOT):

Proper shipping name: Not regulated as a hazardous material

IMDG:

Proper Shipping Name: None Hazard Class: Not regulated

UN/Id No.: None packing group: None

ICAO/IATA:

Proper Shipping Name: None Hazard Class: Not regulated.

Packing Group: None

15. REGULATORY INFORMATION

(Not meant to be all inclusive – selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the print date shown above. However, now warranty, express, or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. FEDERAL REGULATIONS

TSCA Inventory: All ingredients are listed or exempt from listing on the TSCA 8b inventory

CERCLA - SARA Hazard Category: Under the provisions of Title III, Sections 311/312 of Superfund Amendments and Reauthorizations Act (SARA) this product is classified into the hazards listed: None Known

SARA Section 313: This product contains the following substances subject to the reporting requirements of section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372: No Sara 313 components exist in this product.

TSCA 12b: No TSCA 12b components exist in this product

California Proposition 65 Carcinogens: No Proposition 65 Carcinogens exist in this product

INTERNATIONAL REGULATIONS

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Canadian WHMIS: No information

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16. OTHER INFORMATION

Label Information: 3D-Fuel Glass Filled PLA
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Reason for Revisions: Not applicable

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Recommended Restrictions: None
Prepared by: 3DomFuel Inc.

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