



Product Name: 3D-Fuel Biome3D™  
Product Code: Biome 3D™

Revision Number: 01  
Revision Date: 06/01/2015

Print Date: 06/01/2015

# Material 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 Biome3D™

**Product Code:** Biome3D

**Product Use:** A monofilament for 3D printing

**Product Description:** Biodegradable Polymer Filament

**Supplier:** 3DomFuel, 3041 ½ Main Ave, Fargo, ND, 58103 United States

**Customer Information Center:** 1-877-336-3097 [info@3D-Fuel.com](mailto:info@3D-Fuel.com)

## 2. HAZARDS IDENTIFICATION

This product is not classed as dangerous according to EEC directives 67/548/EEC and 99/45/EC, including amendments 2001/60/EC and 2006/8/EC. Safety measures used when typically processing thermoplastic melt materials should be adopted. Fumes from melt may cause eye, skin, and respiratory tract irritation. Use local exhaust ventilation. Wear protective clothing. Avoid touching molten polymer. Eye wash fountains and safety showers must be easily accessible.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization:** Compound of biodegradable polymers

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

**EINECS Number:** All ingredients are listed on the EINECS database

**EG Identification Number:** Not defined

**Dangerous Components:** None

**Form:** Filament

**Odor:** Slight/none at room temperature

## 4. FIRST AID MEASURES

**Emergency Telephone Numbers:** 1-877-336-3097

**Transportation Information Chemtrec:** 1-877-336-3097

**General Information:** The most likely hazard arise from burns by molten material. Apply copious amounts of cold water and seek medical attention.

**Inhalation:** If melt fumes are inhaled move to fresh air and seek medical attention.

**Eyes:** Treat as any foreign particulate matter, rinse open eyes thoroughly with clean water.

**Ingestion:** No information available; no toxic effects are known and no hazards are anticipated; if irritation or other symptoms occur seek medical attention.

## 5. FIRE FIGHTING MEASURES

**Auto-ignition Temperature:** > 380°C, 716°F

**Explosion Hazards:** None anticipated. Avoid powder generation from filament

**Suitable Extinguishing Media:** Water, dry chemicals, air foam.

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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.

Non-suitable Extinguishing Media: Carbon dioxide is generally not recommended as lack of cooling capacity may result in re-ignition.

**Special Exposure Hazards:** During combustion, carbon monoxide/carbon substance, its combustion products dioxide gas is created; depending on the resulting gases: conditions, substances such as tetrahydrofuran, organic acids, aldehydes, alcohols, etc. as well as irritant vapors may also develop.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** In case of dust formation use breathing apparatus. Split granule may make floors slippery – exercise care.

**Environmental Precautions:** Disposal sweep/vacuum filament into suitable container for disposal, avoiding generating dust. Observe local authority regulations.

## 7. HANDLING AND STORAGE

**Handling:** General protection and hygiene rules, keep away from open fire. Minimize dust formation.

**Storage:** Store product dry and sealed indoors at room temperature. Avoid extremes of temperature and humidity, and sources of ignition including static charge.

**Storage Class:** Not applicable.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limit Values:** None

**Exposure Controls:** Personal protective equipment

**Occupational Exposure Controls:** Not necessary during appropriate use

**Environmental Exposure Controls:** Not necessary during appropriate use

**Advice for Engineering Controls:** Avoid electrostatic charge. Where available use exhaust ventilation to prevent the build-up of fumes and/or dust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**General Information:** Pigmented or unpigmented solid material (usually granules/filament)

**Change of State:** Softening at approx. 65°C

**Flash Point:** Not applicable

**Flammability (solid, gaseous):** n/a

**Auto Ignition Point:** >380°C/716°F

**Explosiveness:** Not applicable (but avoid dust generation)

**Explosive Limit:** Not applicable

**Melting Range:** 120-150°C/248-302°F

**Vapor Pressure at 20°C:** Not applicable

**Density at 20°C:** 1.3 g/cm<sup>3</sup>

**Bulk Density:** 910 kg/m<sup>3</sup>

**Solubility in Water:** Non-soluble

**pH:** Not applicable

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions

**Conditions to Avoid:** Temperatures above 220°C/428°F

**Material to Avoid:** Strong acids, bases and oxidizing agents may react with acids with formation of CO<sub>2</sub>

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## 11. TOXICOLOGICAL INFORMATION

No Adverse effects are expected if handled under appropriate use conditions, with precautions mentioned above and below.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Product is completely biodegradable, and degradation products have been tested to verify they are non-ecotoxic

**Mobility:** No data available

**Persistence, Degradability:** Product is completely biodegradable according to DIN EN 13432

**Bioaccumulation:** Does not bioaccumulate.

## 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with national, state, and local regulations.

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

## 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, no 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.

This product is not hazardous according to 67/548/EEC and 99/45/EC, and subsequent amendments.

The substances used in this product comply with the inventory listing of the US Toxic Substances Control Act (TSCA), and are registered according to the European REACH regulations. No substances of very high concern are included.

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## 16. OTHER INFORMATION

**Label Information:** 3D-Fuel Biome3D™

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**Reason for Revisions:** Not applicable

**Revision Date:** 6-1-2015

**Print Date:** 6-1-2015

**Recommended Restrictions:** None

**Prepared by:** 3DomFuel™

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