

SAFETY DATA SHEET

Product Name: BioBlend® XD 22620 BioPolymer
Product No: BioBlend® XD 22620
Date: 12 July 2019



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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	BioBlend® XD 22620 BioPolymer
Common Names	BioBlend® XD 22620
Product Use	BioPolymer resin for blow molding
Manufacturer	BiologiQ Inc. 835 NE Main St. Blackfoot, ID 83221
Emergency Number	1-208-357-9650

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification and Label Elements

Category	Combustible Dust (OSHA Defined)
Label Content	
Pictogram	Not required
Signal word	WARNING
Hazardous warnings	May form combustible dust concentrations in air.
Hazardous prevention measures	Not required

Other Hazards

Physical / Chemical Hazards

Combustible Dust	If small particles are generated during further processing, handling, or by other means, may form combustible dust concentrations in air.
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Health Hazards

Eye	H320: Causes eye irritation. Particles may cause mechanical irritation.
Skin Contact	H316: Causes skin irritation. Only when hot.
Inhalation	Low order of toxicity.
Ingestion	No hazard in normal industrial use.

Environmental Hazards

No significant hazard

NFPA Hazard ID	Health: 1	Flammability: 1	Reactivity: 0
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HMIS Hazard ID	Health: 1	Flammability: 1	Reactivity: 0
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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	Concentration	GHS Hazard Codes
NuPlastiQ® GP BioPolymer		-	N/A
Ethylene/hexene-1 copolymer		-	N/A
Adhesive Resin		-	N/A

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provision of paragraph (i).

SECTION 4. FIRST-AID MEASURES

Eye Contact	Flush eyes with large amounts of water until irritation stops. Seek medical attention if irritation persists.
Skin Contact	Wash with soap and water. For hot product: immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.
Inhalation	Remove individual to fresh air.
Ingestion	Not a probable route of exposure. However, in case of accidental ingestion, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing Media	Dry chemical; CO ₂ ; Water fog; Foam
Unsuitable Extinguishing Media	No applicable data available.
Specific Hazards	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Do not permit dust to accumulate.
Protective Equipment	Self-contained breathing apparatus.
Potentially Hazardous Combustion Products	Flammable hydrocarbons, organic acids, aldehydes, alcohols, acrolein, maleic anhydride, formaldehyde, acetaldehydes, incomplete combustion products, oxides of carbon, smoke, fumes
Flammability Properties	
Flash Point	No data

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Flammability Limits	LEL: N/D	UEL: N/D
Auto-ignition Temperature	N/A	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Safeguards	Avoid the generation or accumulation of dust in the air. Good housekeeping practices should be used to avoid dust build up.
Spill Clean	Spilled material is a slipping hazard on hard surfaces. Sweep or scoop up pellets and remove. Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.
Environmental Precautions	Do not discharge to streams, ponds, lakes, or sewers.
Disposal Method	In accordance with existing local/state/federal regulations.

SECTION 7. HANDLING AND STORAGE

Handling	Minimize dust generation and accumulation. Institute routine housecleaning to ensure dust does not accumulate on surfaces. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Avoid significant deposits of material which may become airborne and form combustible dust clouds. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Handling and processing operations should be conducted in accordance with best practices (e.g. NFPA-654).
Loading/Unloading Temperature	[Ambient]
Transport Temperature	[Ambient]
Transport Pressure	[Ambient]
Storage	Store in cool dry place with adequate ventilation.
Storage Temperature	[Ambient]
Storage Pressure	[Ambient]
Suitable Containers/Packing	Bulk containers, bags. Store sealed to prevent moisture absorption and decomposition.
Incompatible Materials	Strong acids and oxidizing agents.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values for materials that can be formed when handling this product

For dusty conditions, OSHA recommends for particulates not otherwise regulated, an 8-hour TWA of 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction); ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m³ (inhalable particles), 3 mg/m³ (respirable particles).
NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Under recommended processing conditions, this material has been shown to emit elevated concentrations of glycerol mist (CAS 56-81-5). This may cause smoke and possible odor during processing. OSHA does not list glycerol mist as a hazardous material with specific exposure limits.

Engineering Controls

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Processors of this product should assure that adequate ventilation or other controls are used to control exposure.

Personal Protection

Hand Protection

If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, a long sleeve shirt or gauntlet-style gloves are recommended.

Eye Protection

If contact with hot material is likely, safety glasses with side shields are recommended.

Skin and Body Protection

If there is a potential for contact with hot product, thermally protective clothing and footwear is recommended.

Respiratory Protection

If engineering controls do not maintain acceptable airborne contaminate levels, an approved respirator may be appropriate. Typical type: Particulate air-purifying respirator approved for dust / oil mist is recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

General Information / Appearance

Physical State	Solid
Form	Resin Pellets
Type	Mixture
Color	Opaque, off-white to tan

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Odor	N/D
Odor Threshold	N/D
Important Health, Safety, and Environmental Information	
Relative Density	N/A
pH as is	N/A
pH in 1% Solution	N/A
Boiling Point	N/A
Partition Coefficient	N/A
Specific Gravity	N/D
Evaporation Rate	N/A
Vapor Pressure (mm Hg)	N/A
Vapor Density	N/A
Volatiles	N/A
Volatile Organic Compounds	N/A
Auto-ignition Temperature	N/A
Flammability (solid, gas)	May form combustible dust concentrations in air.
Flash Point	N/D
Upper Explosion Limit	N/D
Lower Explosion Limit	N/D
Decomposition Temperature	N/D
Oxidizing Properties	N/A
Viscosity	N/A
Other Information	
Freezing Point	N/A
Melting Temperature	N/A
Molecular Weight	>10,000
Solubility in Water	Low

SECTION 10. STABILITY AND REACTIVITY

Reactivity	0 = Insignificant
Stability	Material is stable under normal conditions.
Conditions to Avoid	Avoid elevated temperatures for prolonged periods of time.
Materials to Avoid	Strong acids and oxidizing agents

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Hazardous Decomposition Products This product does not undergo spontaneous decomposition.

Hazardous decomposition products may include but are not limited to: Carbon dioxide (CO₂), Carbon monoxide, Organic acids, Aldehydes, Alcohols, Acrolein, Formaldehyde, Acetaldehydes.

SECTION 11. TOXICOLOGICAL INFORMATION

Product Toxicology

Oral Toxicity	Low order of toxicity
	Single dose oral LD50 has not been determined.
	Typical for this family of materials.
Dermal Toxicity	LD50, Rat, > 5,000 mg/kg Estimated.
	No adverse effects anticipated by skin absorption.
	The dermal LD50 has not been determined.
	Typical for this family of materials.
Inhalation Toxicity	LD50, Rabbit, > 2,000 mg/kg Estimated.
	No adverse effects are anticipated from single exposure to dust. The LC50 has not been determined.
Eye Irritation	Mechanical irritation is possible.

Chronic (Long-Term) Effects of Exposure

Route of Entry	Eye, skin, inhalation, ingestion
Effects of chronic exposure	N/D
Target Organs	N/A
Special Health Effects	N/D

Other Information

Dust	May be irritating to the eyes and respiratory tract.
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Regulatory Lists Searched	NTP, IARC, OSHA CARC
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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	N/D
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Biodegradability	N/D
Bioaccumulative potential	N/D
Mobility in soil	N/D

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Recommendations	
Waste Disposal Methods:	In accordance with existing federal/state/local environmental regulations.
Empty Containers:	Empty container may contain product residue; follow SDS and label warnings even after containers have been emptied.

SECTION 14. TRANSPORT INFORMATION

Land (DOT)	Not regulated for land transport
Sea (IMDG)	Not regulated for sea transport
Air (IATA)	Not regulated for air transport

SECTION 15. REGULATORY INFORMATION

U.S. Regulations	
SARA (311/312) Reportable GHS Hazard Classes:	Combustible Dust
SARA 313 title III	This material contains no chemicals with known CAS numbers that exceed the threshold levels required for reporting.
TSCA Inventory List	The components listed in section 3 are in compliance with TSCA Inventory requirements for commercial purposes
State Regulations	
California Prop. 65	This product contains no known listed substances.

SECTION 16. OTHER INFORMATION

Created:	12 July 2019
N/D = Not determined, N/A = Not applicable	

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Key to The H-Codes Contained In Section 2 Of This Document (for information only):

H316: Causes skin irritation - only when hot.

H320: Causes eye irritation. Particles may cause mechanical irritation.

This SDS covers the following BioBlend® XD BioPolymers: BioBlend® XD 22620 and BioBlend® XD 22621.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance to safe handling, use, processing storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.