

Product Name: Product No: Revision Date: BioBlend<sup>®</sup> XD 26152 BioPolymer BioBlend<sup>®</sup> XD 26152 2 December 2021

SECTION 1. PRODUCT AND CON	
Product Name	BioBlend <sup>®</sup> XD 26152 BioPolymer
Common Names	BioBlend <sup>®</sup> XD
Product Use	Resin for extrusion
Manufacturer	<i>Headquarters</i> BiologiQ HK Room 401B, Energy Plaza, 92 Granville Road, Tsim Sha Tsui East, Kowloon, Hong Kong
	<i>Manufacturing</i> Block F, Phase 2, Early Light Int. Group, No. 26 Muxi Ave., Xilian Town, Wujiang Dist., Shaoguan City, Guangdong Province, China
Emergency Number	86-751-8828888 ext 2545
SECTION 2 UNZADDE IDENTIEL	
GHS Classification and Label Ele	ements
GHS Classification and Label Ele Category Label Content Pictogram	ements Combustible Dust (OSHA Defined) Not required
GHS Classification and Label Ele Category Label Content Pictogram Signal word	ements Combustible Dust (OSHA Defined) Not required WARNING
GHS Classification and Label Ele Category Label Content Pictogram Signal word Hazardous warnings	ements Combustible Dust (OSHA Defined) Not required WARNING May form combustible dust concentrations in air.
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Category Label Content Pictogram Signal word Hazardous warnings Hazardous prevention measures Other Hazards	ements Combustible Dust (OSHA Defined) Not required WARNING May form combustible dust concentrations in air.



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Health Hazards			
Health Hazard Comp	expected to be a	omposition: This product is not hazard. However, the residual e in IARC list is a 2B-class specification: genic.	
Eye	H320: Causes ey mechanical irritat	ye irritation. Particles may cause tion.	
Skin Contact	H316: May cause	e skin irritation when hot.	
Inhalation	Low order of toxic	city.	
Ingestion	No hazard in nor	No hazard in normal industrial use.	
<b>Environmental Hazards</b>	No significant ha	zard	
NFPA Hazard ID Healt	h: 1 Flammability: 1	Reactivity: 0	
HMIS Hazard ID Healt	h: 1 Flammability: 1	Reactivity: 0	

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS			
Name	CAS #	Concentration	GHS Hazard Codes
NuPlastiQ <sup>®</sup> GP BioPolymer		-	N/A
Styrene, 1,3-butadiene copolymer	9003-55-8	-	N/A
Additives		< 1.5%	N/A
Residual styrene monomer	00100-42-5	< 0.03%	N/A
Adhesive Resin		< 15%	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.



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	Cover with clean cotton sheeting or gauze and get prompt medical attention.
Inhalation	Remove 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 <sub>2</sub> ; 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.	
Decomposition products	Flammable hydrocarbons, incomplete combustion products, water vapor, carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), aldehydes, ketones, styrene, toluene, alcohols, smoke, and other toxic fumes are possible.	
Flammability Properties		
Flash Point	No data	
Flammability Limits	LEL: N/D UEL: N/D	
Autoignition 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.
	Spilled material is a slipping hazard on hard surfaces.
Spill Clean	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.
<b>Environmental Precautions</b>	Do not discharge to streams, ponds, lakes or sewers.
Disposal Method	In accordance with existing local/state/federal regulations.

#### SECTION 7. HANDLING AND STORAGE



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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 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. Do not store near heating source.
Storage Temperature	[Ambient]
Storage Pressure	[Ambient]
Suitable Containers/Packing	Bulk Containers, Bags. Store sealed to prevent moisture absorption and decomposition.

#### **SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Limit Values for materials that can be formed when handling this product	When hot processing this material, use local and/or general exhaust ventilation to maintain the concentration of vapors and fumes below exposure limits. Local exhaust ventilation is preferred. Use static controls. Static charges can cause explosions in solvent and dust laden atmospheres. Follow processing recommendations on the product data sheet.
	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



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	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 insure that adequate ventilation is provided to control and minimize exposure. Dust control equipment, exhaust ventilation, and material transport systems involved in handling of this product should be designed and maintained to minimize dust generation and accumulation.
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 is 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	
Туре	Mixture	
Color	Opaque, off-white to tan	
Odor	N/D	
Odor Threshold	No data available	
Important Health, Safety, and Environmental Information		
Relative Density	N/A	
pH as is	N/A	
pH in 1% Solution	N/A	



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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 oxidizers	
Hazardous Decomposition Products	This product does not undergo spontaneous decomposition.	
	Exposure to high temperatures may cause decomposition. Possible decomposition products include: Carbon monoxide, Organic acids, Aldehydes, Alcohols, Acrolein, zinc oxides, Acetic acid, Maleic anhydride, Formaldehyde, acetaldehydes, Vinyl acetate	



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SECTION 11. TOXICOLOGICAL INFORMATION		
Single dose oral LD50 has not been determined.		
N/D		
N/D		
Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.		
Chronic (Long-Term) Effects of Exposure		
Eye, skin, inhalation, ingestion		
N/D		
N/D		
N/D		
May be irritating to the eyes and respiratory tract.		
Additives are encapsulated in the product and are not expected to be released under normal processing conditions of foreseeable emergency.		

#### **SECTION 12. ECOLOGICAL INFORMATION**

#### Toxicity

Data for Component: Styrene, 1,3- butadiene copolymer (9003-55-8)	Not expected to be acutely toxic.
Persistence and Biodegradability	N/D
Bioaccumulative Potential	N/D
Mobility In Soil	N/D

#### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal Recommendations** 



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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 regulator for Sea Transport
Air (IATA)	Not regulated for Air Transport

#### **SECTION 15. REGULATORY INFORMATION**

#### U.S. Regulations

0.5. Regulations		
TSCA	In compliance with TSCA Inventory requirements for commercial purposes.	
SARA (311/312) Reportable GHS Hazard Classes:	Combustible Dust	
SARA 313 Regulated Chemical(s)	Vinyl Acetate	
CWA / OPA:	Plastic pellets are defined by the US EPA under the Clean Water Act (40CFR122.26) as a "significant material" which requires any industrial plant that may expose pellets to storm water to secure a storm water permit. Violations of the rule carry the same penalties as other Clean Water Act violations. Pellets found in storm water runoff are subject to EPA regulations with the potential for substantial fines and penalties.	
The following ingredients are cited o	n the lists below	
Chemical Name	CAS Number	List Citations
Styrene, 1,3-butadiene copolymer	9003-55-8	2, 5, 6, 7
Styrene** <= 300 PPM	100-42-5	1, 2, 3, 4, 5, 6, 7, 8
Vinyl Acetate	108-05-4	2, 4, 5, 6, 7, 8, 9

Styrene, 1,3-butadiene copolymer	9003-55-8	2, 5, 6, 7
Styrene** <= 300 PPM	100-42-5	1, 2, 3, 4, 5, 6, 7, 8
/inyl Acetate	108-05-4	2, 4, 5, 6, 7, 8, 9
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Regulatory Lists Searched		
1 = OSHA Z	2 = TSCA	3 = CA P65
4 = CA RTK	5 = Canadian DSL	6 = Japanese ENCS
7 = IECSC	8 = PA Right to Know Act and/or Hazardous Substance List	
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\*In April 2016, the Office of Environmental Health Hazard Assessment's (OEHHA) Proposition 65 Department proposed an NSRL of 27  $\mu$ g/day for styrene.

#### **SECTION 16. OTHER INFORMATION**

Created: 2 Dec 2021 Original.

N/D = Not determined, N/A = Not applicable

Key to the H-Codes contained in Section 2 or 3 of this document (for information only)

H316: Causes mild skin irritation

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

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.