

SAFETY DATA SHEET



Product Name: BioBlend® BioPolymers: XP 24250 and XP 24251
Product No: BioBlend® XP 24250 and XP 24251
Revision Date: 26 March 2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	BioBlend® BioPolymers: XP 24250 and XP 24251
Common Names	BioBlend XP
Product Use	Resin for blowing film
Manufacturer	BiologiQ Inc. 3834 Professional Way Idaho Falls, ID 83402
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
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
Adhesive Resin	9002-88-4	-	N/A
LLDPE	9002-88-4	-	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 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.
Decomposition products	Flammable hydrocarbons, Hydrogen fluoride, Incomplete combustion products, Oxides of carbon, Smoke, Fume
Flammability Properties	

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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.
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 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.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values for materials that can be formed when handling this product	<p>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). May contain cristobalite, a form of crystalline silica, as an additive that is encapsulated in the polymer. Inhaled crystalline silica in an occupational environment is recognized as a known human carcinogen. However, the potential for release of silica to the air when this polymer is handled has been assessed and the encapsulated silica within the polymer is not expected to pose a health hazard when processed under normal conditions of use. NOTE: Limits/standards shown for guidance only. Follow applicable regulations.</p> <p>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.</p>
Engineering Controls	Adequate ventilation should be provided so that exposure is minimized during processing.
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

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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
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
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
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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. Typical combustion products may include CO, CO ₂ , C, N, H ₂ O

SECTION 11. TOXICOLOGICAL INFORMATION

Product Toxicology	
Oral Toxicity	Low order of toxicity
Dermal Toxicity	Non-hazardous
Inhalation Toxicity	Non-hazardous
Eye Irritation	Non-hazardous
Chronic (Long-Term) Effects of Exposure	
Route of Entry	Eye, skin, inhalation, ingestion
Effects of chronic exposure	None
Target Organs	N/A
Special Health Effects	None known
Other Information	
Dust	May be irritating to the eyes and respiratory tract.
Additives	Contains additives that are encapsulated in the polymer. Under normal processing conditions, the additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure.

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Regulatory Lists Searched	NTP, IARC, OSHA CARC
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SECTION 12. ECOLOGICAL INFORMATION

Biodegradability	N/D
Incinerability	Incinerable
Toxic Volatiles	None expected with complete combustion

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

SECTION 15. REGULATORY INFORMATION

U.S. Regulations	
Osha Hazard Communication Standard:	This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.
SARA 302:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
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.
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

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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 on the lists below

Chemical Name	CAS Number	List Citations
1-PROPENE, 1,1,2,3,3,3-HEXAFLUORO POLYMER WITH 1,1-DIFLUOROETHENE	9011-17-0	2
SILICA, QUARTZ	14808-60-7	3
TALC	14807-96-6	5

Regulatory Lists Searched

1 = OSHA Z	3 = CA P65	5 = NJ RTK
2 = TSCA	4 = CA RTK	

SECTION 16. OTHER INFORMATION

Created:	18 Dec 2015	Initial version
Revision:	09 Apr 2018	Updated compound name. Updated Section 3, material list. Updated Section 8, Exposure limit values for dusty conditions. Updated Section 10 Conditions to avoid. Updated Section 10 Materials to avoid. Updated Section 15 OSHA communications standard.
Revision:	09 July 2018	Fixed an error for the CAS number for Trisnonyl Phenyl Phosphite.
Revision:	08 Nov 2018	Updated Section 8. Under recommended processing conditions this material may emit glycerol mist.
Revision:	15 Aug 2019	Updated naming from NuPlastiQ® XP to BioBlend® XP.
Revision:	06 Jan 2021	Updated company address.

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

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

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H317: May cause allergic skin reaction; Skin Sensitization, Cat 1

H400: Very toxic to aquatic life: Acute Env Tox, Cat 1

H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1

This SDS covers the following BioBlend® XP BioPolymers: BioBlend® XP 24250 and BioBlend XP 24251.

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.