Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name BioBlend® XP 24550 BioPolymer

Common Names BioBlend® XP 24550

Product Use BioPolymer Resin for blowing film, extrusion, or other

conversion processes

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 Not required

measures

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.

Health Hazards

Eye H320: Causes eye irritation. Particles may cause

mechanical irritation.

Skin Contact H316: Causes mild 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: 0 Flammability: 1 Reactivity: 0

HMIS Hazard ID Health: 1 Flammability: 1 Reactivity: 0

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name CAS # Concentration GHS Hazard Codes

Contains: Additives and stabilizers

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. If symptoms continue, get medical

attention.

Ingestion Not a probable route of exposure. However, in case of

accidental ingestion, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing Media Dry chemical; CO₂; Water fog; Foam

Unsuitable Extinguishing MediaNo 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, oxides of carbon, smoke, and fumes

Flammability Properties

Flash Point No data

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



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.

Do not discharge to streams, ponds, lakes or sewers.

Environmental Precautions

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).

Electrostatic charge may build up during handling.

Equipment should be grounded and bonded.

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.

BioBlend® XP 24550 BioPolymer Product Name:

BioBlend® XP 24550 Product No:

Revision Date: 06 Jan 2021



SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

that can be formed when handling this product

Exposure Limit Values for materials 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 is

recommended.

If contact with hot material is likely, safety glasses with **Eye Protection**

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, such as adequate ventilation

> and/or enclosures 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.

Hygiene Measures Use good personal hygiene practices: Wash hands before

eating, drinking, smoking or using toilet facilities.

Take off contaminated clothing and wash before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



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 Pressure (IIIITrig)

Vapor Density

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

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



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.

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

Dermal Toxicity

Inhalation Toxicity

Low order of toxicity

Non-hazardous

Non-hazardous

Eye Irritation Mechanical irritation is possible.

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.

Regulatory Lists Searched NTP, IARC, OSHA CARC

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity N/D **Biodegradability** N/D

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



Incinerability Incinerable

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)

Sea (IMDG)

Not regulated for Land Transport

Not regulator for Sea Transport

Not regulated for Air Transport

SECTION 15. REGULATORY INFORMATION

U.S. Regulations

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.

International Inventories

Canada DSL Inventory List The components with known CAS numbers in Section 3

are listed.

EU EINECS List The components with known CAS numbers in Section 3

are listed.

China inventory of Existing The components with known CAS numbers in Section 3

Chemical Substances list: are listed.

SECTION 16. OTHER INFORMATION

Created: 16 May 2018 Initial Version

Revision: 25 Feb 2019 Updated naming from NuPlastiQ® XP to BioBlend® XP.

Revision: 06 Jan 2021 Updated company address.

Product Name: BioBlend® XP 24550 BioPolymer

Product No: BioBlend® XP 24550

Revision Date: 06 Jan 2021



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

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

H316: Causes mild skin irritation. Only when hot.

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

This SDS covers the following BioBlend® XP BioPolymers: BioBlend® XP 24550 and BioBlend XP 24551.

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.