

SAFETY DATA SHEET



Smart Solutions For A Sustainable World

Product Name: BioBlend® BC 27134 BioPolymer
Product No: BioBlend® BC 27134
Revision Date: 17 November 2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|-------------------------|-----------------------------------------------------------------|
| Product Names | BioBlend® BC 27134 BioPolymer, BioBlend® BC 27154 BioPolymer |
| Common Names | BC 27134, BC 27154 |
| Product Use | Plastic pellets for industrial use – to create 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. |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------|

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

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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Name | CAS # | Concentration | GHS Hazard Codes |
|--------------------------|------------|---------------|------------------------------------|
| NuPlastiQ® GP BioPolymer | - | - | May form a combustible dust in air |
| Biodegradable Polyester | 55231-08-8 | - | Non hazardous |

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 difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention. |
| Ingestion | No adverse effects to ingestion are expected. |
| Hazards | No hazard is expected under intended use and appropriate handling. |

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 | Decomposition products will depend on fire conditions. CO, CO ₂ , tetrahydrofuran, fumes/smoke, carbon black, harmful vapors, and other hydrocarbons are possible. |

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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. |
| 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. Processing equipment must be fitted with local exhaust ventilation. 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). Wash thoroughly after handling. |
| Loading/Unloading Temperature | [Ambient] |
| Transport Temperature | [Ambient] |
| Transport Pressure | [Ambient] |
| Storage | Store in cool dry place with adequate ventilation. |
| Conditions | Protect against moisture. Avoid extreme heat and sources of ignition: heat, sparks, open flame. |
| Storage Temperature | [Ambient] |

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| | |
|-----------------------------|---------------------------------------------------------------------------------------|
| 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 | For dusty conditions, OSHA recommends for particulates not otherwise regulated an 8-hour TWA of 15 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction); ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m ³ (inhalable particles), 3 mg/m ³ (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. |
| 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

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| | |
|----------------|-------------------------------|
| Physical State | Solid |
| Form | Resin Pellets |
| Type | Mixture |
| Color | Translucent, off-white to tan |
| Odor | Mild Cereal odor |
| 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 | 1.4 +/- 0.03 gm/cc |
| Evaporation Rate | N/A |
| Vapor Pressure (mm Hg) | N/A |
| Vapor Density | N/A |
| Volatiles | None |
| Volatile Organic Compounds | N/A |
| Auto ignition Temperature | N/A |
| Flammability (solid, gas) | Not flammable, but 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 | Approx. 160°C |
| Molecular Weight | >10,000 |
| Solubility in Water | Low |

SECTION 10. STABILITY AND REACTIVITY

Reactivity 0 = Insignificant (NFPA Hazard Class)

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|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stability | Material is stable under normal conditions. |
| Conditions to Avoid | Avoid extreme heat |
| Materials to Avoid | Strong oxidizing agents |
| Hazardous Decomposition Products | This product does not undergo spontaneous decomposition at ambient temperatures. At prolonged and/or strong thermal stressing above the decomposition temperature, hazardous decomposition products may be formed. |

SECTION 11. TOXICOLOGICAL INFORMATION

Product Toxicology

| | |
|---------------------|-------------------------------------------------------------------------------|
| Oral Toxicity | Low order of toxicity. LD50 rat (oral): > 4,000 mg/kg (OECD Guide 423) |
| Dermal Toxicity | No specific data available. |
| Inhalation Toxicity | No specific data available. |
| Eye Irritation | No specific data available. |

Chronic (Long-Term) Effects of Exposure

| | |
|-----------------------------|----------------------------------|
| Route of Entry | Eye, skin, inhalation, ingestion |
| Effects of chronic exposure | No specific data available. |
| Target Organs | N/D |
| Special Health Effects | None known |

Other information

| | |
|------|------------------------------------------------------|
| Dust | May be irritating to the eyes and respiratory tract. |
|------|------------------------------------------------------|

SECTION 12. ECOLOGICAL INFORMATION

| | |
|-------------------------------------------|-----------------------------|
| Toxicity | No specific data available. |
| Persistence and degradability | No specific data available. |
| Bioaccumulative potential | No specific data available. |
| Mobility in soil | No specific data available |
| Results of PBT and vPvB assessment | No specific data available |

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| | |
|-------------------------------|---------------------------------------------------------------------------------|
| Additional Information | At the present state of knowledge, no negative ecological effects are expected. |
|-------------------------------|---------------------------------------------------------------------------------|

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

| | |
|-------------------------------------------------------|----------------------------------------------------------------|
| CAS Registry Nos. | Listed components only: 55231-08-8 |
| U.S. Regulations | |
| SARA 313 title III | Not listed |
| TSCA Inventory List | Not listed |
| State Regulations | |
| Proposition 65 listed material | Not listed |
| International Inventories | |
| Canada DSL Inventory List | Not listed. |
| EU EINECS List | The components of this product listed in Section 3 are listed |
| China inventory of Existing Chemical Substances list: | The components of this product listed in Section 3 are listed. |
| China Catalog of Hazardous Chemicals (2015) | Not listed |

SECTION 16. OTHER INFORMATION

| | | |
|----------|-------------|----------|
| Created: | 25 May 2021 | Original |
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Revision: 17 November 2021 Updated Product Number and formatting.

Key to The H-Codes Contained In Section 2 and 3 Of This Document (for information only):

H316: Causes skin irritation. Only when hot.

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

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

This SDS covers a range of BioBlend® BC BioPolymer Mulch Resins manufactured by BiologiQ, Inc. These include resins with the following designations: BC27134, BC27154

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.