

# SAFETY DATA SHEET

According to regulation (EC) No. 1907/2006



Smart Solutions For A Sustainable World

Product Name: NuPlastiQ® CG 2031 BioPolymer

Product No: NuPlastiQ® CG 2031

Revision Date: 11 July 2024

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name	NuPlastiQ® CG 2031 BioPolymer
1.2 Product Use	Compounding, extrusion, injection, forming, film blowing
1.3 Manufacturer	<b>Headquarters</b> BiologiQ HK Room 401B, Energy Plaza, 92 Granville Road, Tsim Sha Tsui East, Kowloon, Hong Kong  <b>Manufacturing</b> Block F, Phase 2, Early Light Int. Group, No. 26 Muxi Ave., Xilian Town, Wujiang Dist., Shaoguan City, Guangdong Province, China
Contact Email:	info@biologiq.com
1.4 Emergency Number	86-751-8828888 ext 2545

## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
According to regulation (EC) Nr. 1272/2008	Not Classified
According to directive 1999/45/EC:	None
2.2 Label Elements	None
2.3 Other Hazards	If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Chemical Characterization

Mixture of thermoplastic starch

Chemical Name	CAS #	%*	Classification
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			67/548/EC	(EC) Mo. 1272/2008
Hydrolyzed Starch	68412-29-3	-	-	-
Naturally Sourced Glycerin	56-81-5	-	-	-

\*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

<b>4.1 Description of first aid measures</b>	Flush eyes with large amounts of water until irritation stops. Seek medical attention if irritation persists
<b>Skin Contact</b>	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.
<b>Inhalation of Dust</b>	Remove to fresh air.
<b>Eye Contact</b>	Flush eyes with water. In case of constant irritation consult a physician.
<b>Ingestion</b>	No adverse effects to ingestion are expected.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	None observed.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	None observed.

## SECTION 5. FIREFIGHTING MEASURES

<b>5.1 Extinguishing Media</b>	
<b>Suitable Extinguishing Media</b>	Dry chemical; CO2; Water fog; Foam

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## 5.2 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. Slip hazard when wet.

## 5.3 Advice for firefighters

Wear self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment, and emergency producers

Avoid the generation or accumulation of dust in the air. Good housekeeping practices should be used to avoid dust build up. Provide adequate ventilation. Wear personal protective equipment.

### 6.2 Environmental precautions

Handle according to existing federal/state/local environmental regulations. Do not enter into drains, surface water, or groundwater.

### 6.3 Spill Clean

Spilled material is a slipping hazard on hard surfaces. 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.

### 6.4 Reference to other sections

See protective sections under section 8 and disposal under section 13.

## SECTION 7. HANDLING AND STORAGE

### 7.1 Safe 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]

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<b>Transport Pressure</b>	[Ambient]
<b>7.2 Conditions for Safe Storage</b>	Store in cool dry place with adequate ventilation.
<b>Storage Temperature</b>	[Ambient]
<b>Storage Pressure</b>	[Ambient]
<b>Suitable Containers/Packing</b>	Bulk Containers, Bags. Store sealed to prevent moisture absorption and decomposition.
<b>7.3 Specific End Use</b>	Thermoplastic starch for blending with other plastic resin.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>8.1 Control Parameters</b>	None
<b>DNEL-value (Derived no effect level)</b>	None
<b>8.2 Exposure Control</b>	
<b>General Protection</b>	Adequate ventilation should be provided so that exposure is minimized during processing. Protective clothing should be selected for the workplace.
<b>Respiratory Protection</b>	If engineering controls do not maintain acceptable airborne contamination levels, an approved respirator may be appropriate. Typical type: Particulate air-purifying respirator approved for dust / oil mist is recommended.
<b>Hand Protection</b>	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.
<b>Eye Protection</b>	If contact with hot material is likely, safety glasses with side shields are recommended.
<b>Skin and Body Protection</b>	If there is a potential for contact with hot product, thermally protective clothing and footwear is recommended.
<b>Environment Exposure</b>	Handle according to existing federal/state/local environmental regulations. Do not allow material to enter into drains, surface water, or groundwater.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information / Basic Properties

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<b>Physical State</b>	Solid
<b>Form</b>	Resin Pellets
<b>Type</b>	Mixture
<b>Color</b>	Translucent, Tan
<b>Odor</b>	Mild cereal odor
<b>Odor Threshold</b>	No data available
<b>Relative Density</b>	N/A
<b>pH as is</b>	N/A
<b>pH in 1% Solution</b>	N/A
<b>Boiling Point</b>	N/A
<b>Partition Coefficient</b>	N/A
<b>Specific Gravity</b>	1.4 +/- 0.03 gm/cc
<b>Evaporation Rate</b>	N/A
<b>Vapor Pressure (mm Hg)</b>	N/A
<b>Vapor Density</b>	N/A
<b>Volatiles</b>	None
<b>Volatile Organic Compounds</b>	N/A
<b>Auto ignition Temperature</b>	N/A
<b>Flammability (solid, gas)</b>	The product itself is not explosive. However, it may form combustible dust concentrations in air.
<b>Flash Point</b>	N/D
<b>Upper Explosion Limit</b>	N/D
<b>Lower Explosion Limit</b>	N/D
<b>Decomposition Temperature</b>	N/D
<b>Oxidizing Properties</b>	N/A
<b>Viscosity</b>	N/A
<b>Freezing Point</b>	N/A
<b>Melting Temperature</b>	N/D
<b>Molecular Weight</b>	>10,000
<b>Solubility in Water</b>	Low

## SECTION 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	No hazardous reactions known if used as recommended.
<b>10.2 Stability</b>	Material is stable under normal conditions.

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<b>10.3 Possibility of Hazardous Reactions</b>	The product itself is not explosive. However, it may form combustible dust concentrations in air.
<b>10.4 Conditions to Avoid</b>	None
<b>10.5 Materials to Avoid</b>	None
<b>10.6 Hazardous Decomposition Process</b>	This product does not undergo spontaneous decomposition. Typical combustion products are CO, CO <sub>2</sub> , C, N, H <sub>2</sub> O

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Product Toxicology

<b>LD<sub>50</sub> Values</b>	None.
<b>Irritant and Corrosive Effects</b>	None known.
<b>Sensitization</b>	No sensitization expected.
<b>Carcinogenicity</b>	None known.
<b>Mutagenicity</b>	None known.
<b>Reproductive Toxicity</b>	None known.
<b>Other Information</b>	The mixture was classified based on the calculation procedure of the CLP- Regulation (EC) 1272/2008 Annex I and of the preparation directive (1999/45/EC).

## SECTION 12. ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	Non-toxic. The mixture was classified on the basis of the calculation procedure of the CLP-Regulation (EC) 1272/2008 and of the preparation directive (1999/45/EC)
<b>12.2 Persistence and Degradability</b>	Expected to biodegrade. Compostable as verified by testing to ASTM D6400 and EN13432.
<b>12.3 Bio-accumulative potential</b>	Bio-accumulation is not expected.
<b>12.4 Mobility in soil</b>	No data.
<b>12.5 Results of PBT and vPvB assessment</b>	No data.

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## 12.6 Other Adverse Effects

Handle according to existing federal/state/local environmental regulations. Do not allow material to enter drains, surface water, or groundwater.

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment 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

### 14.1 UN Number

Not applicable.

### 14.2 UN Proper Shipping Name

Not applicable.

### 14.3 Transport Hazard Classes

Not applicable.

### 14.4 Packing Group

Not applicable.

### 14.5 Environmental Hazards

Not applicable.

### 14.6 Special Precautions for User

Not applicable.

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not applicable.

## SECTION 15. REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Safety Data Sheet according to REACH – Regulation (EC) No. 1907/2006. The mixture was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008 (Annex 1) and of the preparation directive (1999/45/EC).

#### Registration of Hydrolyzed Starch

Hydrolyzed starch as a polymer is exempt from registration according to REACH Regulation (EC) No. 1907/2006 article 2(9).

### 15.2 Chemical Safety Assessment

Not available.

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## SECTION 16. OTHER INFORMATION

Created: 24 June 2024

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

This SDS covers the following NuPlastiQ® CG BioPolymers: NuPlastiQ® CG 2031.

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.

The mixture was classified on the basis of the calculation procedure of the CLP- Regulation (EC) 1272/2008 (Annex 1) and of the preparation directive (1999/45/EC). The classifications of ingredients are based on CLP Regulation Annex VI and manufacturer's data and additional information of hazardous substances database and the European Chemical Agency.