



Safety Data Sheet Template

18 Sep 2024 / Carolina Amin Ferril /
BENREE (TM)

Complete

Score	0 / 0 (0%)	Flagged items	0	Actions	0
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Conducted on

18.09.2024 12:34 CDT

Prepared by

Carolina Amin Ferril

Name of Chemical

BENREE (TM)

Location

Houston, TX

Inspection

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Form

Pellets

Product Name

Benree (TM)

Synonyms

1.2 Intended Use of the Product

Use of the substance/mixture

Plastic articles
Injection Molding
Extrusion
Thermoforming

1.3 Name, Address, and Telephone of the Responsible Party/Company

Rheom Materials, Inc
6501 Navigation Blvd. Houston. TX. 77011
(+1) 281-309-8360

Emergency Telephone Number

(+1) 281-309-8360

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS-US Classification)

Flammability GHS Category 4-Slight hazard
Not considered hazardous according to OSHA

2.2 Label Elements (GHS-US Labeling)

Hazard Pictograms (GHS-US)

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

Signal Word (GHS-US)

No labelling applicable

Hazard Statements (GHS-US)

Flammability GHS Category 4 Slight hazard
Not considered a hazards substance or mixture

Precautionary Statements (GHS-US)

Will not ignite by friction
Slightly flammable if subjected to open flame

2.3 Other Hazards

Other hazards which do not result in classification: None under normal conditions.

2.4 Unknown Acute Toxicity (GHS-US)

Eye: May cause eye irritation
Skin: May cause skin irritation. Under normal processing conditions at elevated temperature, contact with molten material can cause thermal burns
Ingestion: May be harmful if swallowed
Inhalation: Dust from processing may cause irritation of the respiratory system

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Biopolymers blend with sustainable fillers

3.2 Mixture (Include percentage of components)

Polyhydroxyalkanoate mixture: 80-90%
Mineral Filler: 5-15%
lubricant: 0.1-1%
Algae Pigment: 0.1-0.5%

Component (include percentage & GHS-US classification)

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of First-aid Measures

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Wash off with soap and water.
Ingestion: Get medical aid immediately. Do not induce vomiting without medical advice.
Inhalation: Heating resin above the recommended processing range, or 220 °C (392°F) will produce toxic fumes. Remove the victim from exposure area to fresh air immediately. Give oxygen if breathing is difficult. Get medical aid. Give artificial respiration if not breathing.
Notes to Physician: Treat symptomatically and supportively.
Treat symptomatically and supportively.

4.2 Most Important Symptoms and Effects Both Acute and Delayed

Eyes: None under normal conditions.
Skin: None under normal conditions. Contact with product at elevated temperatures can result in thermal

burns.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Extinguishing media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not determined.

Auto-ignition Temp.: Not determined.

Hazardous Combustion Product

5.2 Special Hazards Arising From the Substance or Mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released.

Hazardous Combustion Products Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO₂).

Wear a self-contained breathing apparatus in pressure if fire.

5.3 Advice for Firefighters

Precautionary measures fire: Eliminate all ignition sources if safe to do so. Evacuate area.

Firefighting instructions: Do not enter fire area without proper protective equipment, including respiratory protection.

Evacuate area. Fight fire with normal precautions from a reasonable distance.

Protection during firefighting: Do not attempt to take action without suitable protective equipment.

Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use protective equipment. Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

When using, do not eat, drink or smoke.

Personal Protective Equipment.

Eye/face Protection. Safety glasses with side-shields. If splashes are likely to occur, wear goggles.

Skin and Body Protection Chemical resistant gloves made of butyl rubber or nitrile rubber.

Respiratory Protection: No needed

6.1.1 For Non-Emergency Personnel

6.1.2 For Emergency Personnel

Protective equipment: Do not attempt to take action without suitable protective equipment.

6.2 Environmental Precautions

Avoid release to the environment.

6.3 Methods and Materials for Containment and Cleaning Up

Methods for cleaning up: Mechanically recover the product.

Other information: Dispose of materials or solid residues at an authorized site.

6.4 Reference to Other Sections

None

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Good industrial practices in housekeeping and personal hygiene should be followed. Minimize dust. Maintain operating temperature within the recommended processing range. Avoid contact with molten material and provide adequate ventilation during processing. When mechanical energy is used to process, or transfer, the materials, fines or dust can be generated. Systems and procedures should be designed to minimize the generation and accumulation of dust from the handling and processing this resin.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

This resin has good storage stability, but extremes of temperature and humidity should be avoided to prevent property deterioration. The recommended maximum shelf life is two years. Resin should be stored in original shipping package. Keep the resin dry and sealed to exclude moisture. Store below 27 (80 °F) to maximize product shelf.

7.3 Specific End Use(s)

Injection Molding
Extrusion
Thermoforming

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

No OSHA Vacated PELs are listed for this chemical.

8.2 Exposure Controls

8.2.1 Appropriate Engineering Controls

Provided good general ventilation with additional local ventilation where the hot polymer may reside for long periods (leak areas, above the nozzle or die, in screen changers, in vent ports, etc.). Heating resin above recommended processing conditions or 200 °C (392 °F) will produce toxic fumes.

8.2.2 Personal Protective Equipment (PPE)

Eye Protective equipment: safety glasses.
Skin protection: lab coat, gloves.
Hot polymers can cause thermal burns. Wear impervious clothing and insulated gloves where exposure to molten polymer is possible.

Include photos or pictograms of PPEs

8.2.3 Materials for Protective Clothing

N/A.

8.2.4 Environmental Exposure Controls

Avoid release to the environment.

8.2.5 Other Information

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State

Solid. Pellets.

Upper/lower flammability or explosive limits: 160 g/m³
Decomposition Temperature: above 200 °C (392 °F)

Appearance

Black solid pellets

Odor

Mild

pH

N/A

Evaporation Rate

Not determined.

Melting Point

140-150 °C

Freezing Point

Not determined.

Boiling Point

N.A.

Flash Point

Not determined.

9.2 Other Information

Density: 1.1-1.3 g/cm³

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Not known to be reactive.

10.2 Chemical Stability

Stable under normal conditions (<200C)

10.3 Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4 Conditions to Avoid

Incompatible materials, excess heat, flames, ignition sources.

10.5 Incompatible Materials

Strong oxidizing agents, strong acids.

10.6 Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, crotonic acid.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

No information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2 Persistence and Degradability

No additional information available.

Main raw material meets the following certifications for biodegradability: ASTM6400, OK Biodegradable Water, OK Biodegradable Soil, OK Compost (Vincotte-certified)

12.3 Bioaccumulative Potential

No additional information available.

12.4 Mobility in Soil

No additional information available.

12.5 Other Adverse Effects

No additional information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

There are no special requirements. Observe all environmental regulations. Non-hazardous, biobased and biodegradable biopolymer resin is not designed to biodegrade in conventional landfills and is not part of the

conventional plastics recycling stream.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name

Not regulated

Hazard Class

Not regulated.

Identification Number

Label Codes

Packing Group

Not regulated.

ERG Number

14.2 In Accordance with IMDG

Proper Shipping Name

Not regulated.

Hazard Class

Not regulated.

Subsidiary Risk(s)

Identification Number

Packing Group

Not regulated.

Label Codes

EmS-No. (Fire)

Not regulated.

EmS-No. (Spillage) S-C

Not regulated.

MFAG Number

14.3 In Accordance with IATA

Proper Shipping Name

Not regulated.

Packing Group

Not regulated.

Identification Number

Hazard Class

Not regulated.

Label Codes

Subsidiary Risk(s)

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule

Section 12b

None of the chemicals are listed under TSCA Section 12b

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA

CERCLA Hazardous Substance and Corresponding RQs

Not available

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ

Section 313

No chemicals are reportable under Section 313

Clean Air Act:

This material does not contain any hazardous air pollutants

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substance under the CWA

None of the chemicals in this product are listed as Priority Pollutants under the CWA

None of the chemicals in this product are listed as Toxic Pollutants under the CWA

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

EUROPEAN UNION

Not considered hazardous according to EC Directives 67/548/EEC or 1999/45/EC and their valid adaptations and derived national regulations

European labeling in Accordance with EC Directives

15.2 US State Regulations

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Other Information

SDS Original Creation Date: 07/24/2024
HMIS Classification (estimated)
Health hazard: 0
Physical hazards: 0
NFPA Rating (estimated)
Health hazard: 0
Fire: 1
Reactivity: 0

GHS Full Text Phrases

Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.