

MATERIAL SAFETY DATA SHEET



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Cardia Compostable B-F resin

Product Name(s): Cardia Compostable B-F, Cardia Compostable B-F02, Cardia Compostable B-F03HC, Cardia Compostable B-F04, Cardia Compostable B-F07, Cardia Compostable B-F08, Cardia Compostable B-F09, Cardia Compostable xB-F11, Cardia Compostable xB-F12, Cardia Compostable B-F0x GR, Cardia Compostable B-F0x BL, Cardia Compostable B-F0x WH, Cardia Compostable B-F AB, Cardia Compostable B-F PU, Cardia Compostable B-F BR, Cardia Compostable B-F-SA, Cardia Compostable B-F MC

1. Substance/preparation and company identification

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2. Composition/information on ingredients

Blend of thermoplastic starch (TPS), biodegradable polyesters (PBAT) and natural plasticizers (glycerol and sorbitol).

Ingredient	CAS No.
Starch	9005-25-8
Glycerol	56-81-5
Sorbitol	50-70-4
PBAT	55231-08-8
Pigments and Additives, proprietary	

3. Hazard identification

Emergency overview

CAUTION: CAN CAUSE THERMAL BURNS.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Contact with molten product may cause thermal burns. The resin in pellet form poses a low hazard.

Irritation:

Frequent and prolonged contact can lead to skin irritation.

Sensitization:

No data available concerning sensitizing effects

Repeated dose toxicity:

No data available concerning repeated dose toxicity.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

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Potential environmental effects

Terrestrial toxicity:

No data to indicate terrestrial toxicity.

4. First-aid measures

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If difficulties occur: Seek medical attention.

If on skin:

Areas affected by molten material should be quickly placed under cold running water. Burns caused by molten material require hospital treatment. Seek medical assistance for removal of adhering material.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed:

No hazards anticipated. Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention.

Note to physician

Treatment: Treat according to the symptoms under clinical conditions.

5. Fire-fighting measures

Flash point: > 550 °F or 288°C (ASTM D1929)

Auto ignition: 878 °F or 470 °C (ASTM D1929)

Suitable extinguishing media:

Water, foam, dry extinguishing media

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

When large quantities of solid substance/product are involved, melting may occur, in which condition, application of water may cause extensive scattering of molten material.

6. Accidental release measures

Personal precautions:

Avoid inhalation. Avoid contact with the skin, eyes and clothing. Sources of ignition should be kept well clear.

Cleanup:

Avoid raising dust. Ensure adequate ventilation. After decontamination, spill area can be washed with water.

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up. Vacuum up spilled product.

Further information:

High risk of slipping due to leakage/spillage of product.

7. Handling and storage

Handling

Protection against fire and explosion:

Avoid dust formation. Provide exhaust ventilation. Dust can form an explosive mixture with air.

Storage

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General advice:

Keep container tightly closed and dry; store in a cool place. Avoid extreme heat. Avoid direct sunlight. Avoid all sources of ignition: heat, sparks, and open flame.

Storage incompatibility:

General: Segregate from strong oxidizing agents.

Storage stability:

Avoid prolonged storage at high temperatures.

8. Exposure controls and personal protection

Advice on system design:

Provide exhaust ventilation at sources when processing molten product. Provide local exhaust ventilation to control dusts/vapours.

Personal protective equipment

Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Wear respiratory protection if ventilation is inadequate.

Hand protection:

Chemical resistant protective gloves, Use additional heat protection gloves when handling hot molten masses (e.g. of textile or leather).

Eye protection:

Safety glasses with side-shields. Wear splash goggles to protect from hot molten substance/product.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Avoid contact of molten material with skin. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form:	Pellets
Odour:	Slight starchy odour
pH value:	7
Melting range:	65 - 100 °C
Solubility in water:	Insoluble

10. Stability and reactivity

Conditions to avoid:

Avoid extreme heat. Avoid all sources of ignition: heat, sparks, and open flame.

Substances to avoid:

Strong oxidizing agents, chlorinated hydrocarbons, aromatic solvents

Decomposition products:

Possible thermal decomposition products: gases/vapours, monomers, oxides, hydrocarbons

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information

Chronic toxicity

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Other information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. Ecological information

Environmental toxicity

At the present state of knowledge, no negative ecological effects are known or expected. Material is fully compostable and biodegradable and leaves no persistent ecotoxic residues.

13. Disposal considerations

Waste disposal of substance:

This product is not regulated by RCRA.

This product is not regulated by CERCLA ('Superfund').

Dispose of in accordance with national, state and local regulations.

Do not discharge into waterways or sewer systems without proper authorization.

Contaminated packaging:

Dispose of in accordance with national, state and local regulations. Uncontaminated packaging can be recycled.

14. Transport information

Not regulated as hazardous material or dangerous good for transportation

15. Other information

HMIS III rating

Health: 1

Flammability: 0

Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

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