

## 1. Identification

**Product identifier:**

Product number: 06400401  
Product name: PENBIND(TM) 196  
modified food starch

**Other means of identification:**

Chemical family: Modified starch

**Recommended use and restrictions on use:**

Recommended use: Food products  
Restrictions on use: Not Available

**Initial supplier identifier:**

Ingredion Canada Corporation  
1600 - 90 Burnhamthorpe Road West  
Mississauga, Ontario, L5B 0H9, Canada  
(905) 281-7950 (business hours)

**Emergency telephone number and any restrictions on the use of that number, if applicable:**

MEDICAL: 1-866-374-2659 (Health & Safety Call Center - 24 hours)  
TRANSPORT: 1-800-424-9400 (CHEMTREC - 24 hours)

## 2. Hazard identification

Classification of the chemical is in accordance with Hazardous Products Regulations (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS):

**GHS Hazard Symbols:** No hazard symbols required

**Hazard Statements:** May form combustible dust concentrations in air

**Label elements:**

**GHS Classification:** Combustible Dust  
**Signal Word:** Warning  
**Precautionary Statements:** No Precautionary Statement needed.

**Physical hazards not otherwise classified:**

**Hazard Category:** None known.

**Health hazards not otherwise classified:**

**Hazard Category:** None known.

**Other hazards known to the supplier with respect to the hazardous product:** None known.

**3. Composition/information on ingredients**

Chemical Name	CAS registry number and any unique identifiers	Concentration (% by weight)
None classified as hazardous under the Workplace Hazardous Materials Information System (WHMIS).		

**4. First-aid measures**

**A description of necessary first-aid measures, subdivided according to the different routes of exposure (inhalation, ingestion, skin and eye contact):**

Inhalation: Remove to fresh air. Get medical attention if irritation persists.  
 Ingestion: None required.  
 Skin Contact: Wash skin with soap and water.  
 Eye Contact: Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. If symptoms develop, obtain medical attention.

**Most important symptoms and effects, whether acute or delayed:** Possible physical irritant from dust particles. Potential for dust explosion.

**Indication of immediate medical attention and special treatment needed, if necessary:** No further first aid information is available.

**5. Fire-fighting measures**

**Suitable and unsuitable extinguishing media:**

Suitable extinguishing media: Dry Chemical, CO2, Water Fog, Foam  
 Unsuitable extinguishing media: None known.

**Specific hazards arising from the hazardous product:** Minimum ignition temperature of dust cloud- approx. 390 C. Minimum explosive concentration- approx. 80 mg/l. Minimum energy to ignite cloud by electrical spark- approx. 0.10 joules.

Hazardous combustion products: This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.

**Special protective equipment and** No special procedures are required.

precautions for fire-fighters:

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment as required.

**Methods and materials for containment and cleaning up:**

Normal precautions for "nuisance dust" should be observed. Avoid prolonged inhalation of dust. Sweep up or vacuum up and place in suitable container for disposal.

## 7. Handling and storage

**Precautions for safe handling:**

As with all chemicals, good industrial hygiene practices should be followed when handling this material.

**Conditions for safe storage, including any incompatibilities:**

Safe storage conditions:

Keep container closed when not in use.

Sensitivity to Static Electricity:

Yes

Other precautions:

Use care to minimize dust generation in normal use conditions.

Avoid dispersing the powder in the air. Prevent buildup of powder on surfaces.

Materials to Avoid/Chemical Incompatibility:

None known

## 8. Exposure controls/personal protection

**Control parameters, including occupational exposure limit values or biological limit values and the source of those values:**

Chemical Name	OSHA PEL	ACGIH TLV-TWA	AIHA Exposure limits
No data available			

This product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

General.

**Individual protection measures, such as personal protective equipment:**

**Respiratory Protection:**

NIOSH approved dust mask.

**Eye protection:**

Safety glasses recommended.

**Skin protection:**

Skin protection may be required depending on product temperature.

**Gloves:**

Gloves are not normally required for foreseeable conditions of use.

**Other protective equipment:** Not normally required. Not applicable.  
**General hygiene conditions:** Wash before eating, drinking, or using toilet facilities.

## 9. Physical and chemical properties

### Appearance, such as physical state and colour:

Pure substance or mixture: Pure  
Physical state: Powder  
Colour: White

**Odour:** Starch

**Odour threshold:** Not available

**pH:** Not available

**pH in (1%) Solution:** Approximately 7

### Melting point and freezing point:

Melting point (°C): Not available  
Freezing point (°C): Not available

**Initial boiling point and boiling range:** Not available

**Flash point:** Not applicable

**Evaporation rate:** Not applicable

**Flammability, in the case of solids and gases:** No

### Upper and lower flammability or explosive limits:

Upper flammability or explosive limits: Not available  
Lower flammability or explosive limits: Not available

**Vapour pressure:** Not available

**Vapour density:** Not available

**Relative density:** 1.5

**Solubility:** Insoluble

**Partition coefficient - n-octanol/water:** Not available

**Auto-ignition temperature:** Not available

**Decomposition temperature:** Not available

**Viscosity:** Not applicable

**Volatiles:** None

**Volatile Organic Chemicals (VOC):** Not applicable

## 10. Stability and reactivity

**Reactivity:** Not expected to be reactive.

**Chemical stability:** Stable

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization will not occur.
<b>Conditions to avoid, including static discharge, shock or vibration:</b>	None known
<b>Incompatible materials:</b>	None known
<b>Hazardous decomposition products:</b>	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.

## 11. Toxicological information

### Description of the various toxicological (health) effects and the available data used to identify those effects:

<b>Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):</b>	Ingestion, Inhalation, Skin Contact, Eye Contact
<b>Target Organs Potentially Affected by Exposure:</b>	Not applicable.
<b>Symptoms related to the physical, chemical and toxicological characteristics:</b>	No data available
<b>Toxic effects:</b>	This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.

### Delayed and immediate effects, and chronic effects from short-term and long-term exposure:

#### Acute Toxicity:

Acute Toxicity - Oral:	Based on available data, the classification criteria are not met.
Acute Toxicity - Dermal:	Based on available data, the classification criteria are not met.
Acute Toxicity - Inhalation:	Based on available data, the classification criteria are not met.

**Skin Corrosion / Irritation:** Based on available data, the classification criteria are not met.

**Eye Damage / Irritation:** Based on available data, the classification criteria are not met.

**Respiratory Sensitization:** Based on available data, the classification criteria are not met.

**Skin Sensitization:** Based on available data, the classification criteria are not met.

**Germ Cell Mutagenicity:** Based on available data, the classification criteria are not met.

**Reproductive Toxicity:** No.

**Carcinogenicity:** None known.

**STOT - single exposure:** Based on available data, the classification criteria are not met.

**STOT - repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

**Numerical measures of toxicity including ATE's:**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
There is no known toxicity data available for the components or the product.			

**12. Ecological information**

**Ecotoxicity (aquatic and terrestrial if available):** No information available.

**Component toxicity data:**

Chemical Name	CAS registry number and any unique identifiers	Aquatic LC50 Fish	Aquatic ERC50 Algae	Aquatic EC50 Crustacea
No data available				

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** Unknown

**Other adverse effects:** None known.

**13. Disposal considerations**

**Information on safe handling for disposal and methods of disposal, including any contaminated packaging:** Disposal should be in accordance with local, provincial or national legislation.

**Empty Container Warnings:** Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

**14. Transport information**

**TDG Classification:** Not regulated

**UN number:** Not applicable

**United Nations proper shipping name as provided for in the United Nations Model Regulations:** Not regulated

**Transport hazard class as provided in the United Nations Model Regulations:** Not applicable

**Packing group as provided in the United Nations Model Regulations:** Not applicable

**Toxic Inhalation Hazard Zone:** No data available

**Environmental hazards according to the International Maritime Dangerous Goods Code and the United Nations Model Regulation:** No data available

**Transport in bulk (according to Annex II of the International Convention for the Prevention of Pollution From Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)):** No data available

**Special precautions in connection with transport or conveyance either within or outside the premises:** Consult IMO regulations before transporting in bulk by ocean.

**15. Regulatory information**

Safety, health and environmental regulations made within or outside Canada, specific to the product in question:

<b>Canada - Domestic Substances List (DSL):</b>	On Inventory
<b>Canada - Non-Domestic Substances List (NDSL):</b>	On Inventory
<b>Canada - In-Commerce List (ICL):</b>	On Inventory

**16. Other information**

**Date of SDS preparation or last revision (mm-dd-yyyy):** 08-06-2024

**For product information, contact** Ingredion Incorporated  
Customer Service: 1-800-713-0208

Ingredion Incorporated and the Ingredion group of companies does not make any warranty or representation respecting the accuracy or completeness of the data. We assume no responsibility for any liability or damages relating thereto, or for advising you regarding the protection of your employees, customers, or others. You should make your own determination regarding the applicability of such information to, or the suitability of any products for your specific use. Ingredion Incorporated and the Ingredion group of companies expressly disclaims all warranties, expressed or implied, including but not limited to, warranties of merchantability, accuracy, fitness for use or for a particular purpose, and noninfringement. The United Nations Convention on Contracts for the International Sale of Goods shall not apply



# Safety Data Sheet

PENBIND(TM) 196

---

to sales of products by Ingredion Incorporated and the Ingredion group of companies. The INGREDION mark and logo are trademarks of the Ingredion group of companies.