SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
MAIZE STARCH

1.2. Relevant identified uses of the substance or mixture and uses advised against
food starch

1.3. Details of the supplier of the safety data sheet
The relevant Ingredion EMEA Company which invoices for the Product – please see Section 16
E-Mail Address
elizabeth.fawkes@ingredion.com

1.4. Emergency telephone number
EMERGENCY TELEPHONE: +32 3 575 5555

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
This product is not classified as hazardous according to (EC) No. 1272/2008

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard Statements
Not Applicable

Supplemental Hazard information (EU)
No Supplemental Hazard Information available

2.3. Other hazards
DUST
Nuisance dust with a possibility of dust explosion.

EYE
Particulates may scratch eye surfaces and cause mechanical irritation.

SKIN CONTACT
Low order of toxicity.

INHALATION
This product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m3.

INGESTION
No hazard in normal industrial use.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not Applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Percentage (%)</th>
<th>CAS number</th>
<th>Reach Registration No.</th>
<th>Classified in accordance with (EC) No. 1272/2008</th>
</tr>
</thead>
</table>
This product is not classified as hazardous

See Section 16 for full text of hazard statements.

SECTION 4: First aid measures

4.1. Description of first aid measures

**Inhalation**
Remove patient from exposure.

**Eye contact**
Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. If symptoms develop, obtain medical attention.

**Skin contact**
Wash skin with soap and water.

**Ingestion**
None required.

**Self-protection of the first aider**
Not available

4.2. Most important symptoms and effects, both acute and delayed

**Symptom**
Possible physical irritant from dust particles.

4.3. Indication of any immediate medical attention and special treatment needed

**Notes to the physician**
No further first aid information is available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

**Suitable extinguishing media**
CO2 Dry Chemical Foam Water Fog

**Unsuitable Extinguishing Media**
None known.

5.2. Special hazards arising from the substance or mixture

**Fire and/or Explosion Hazards**
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**
Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

5.3. Advice for firefighters

**Fire Fighting Methods and Protection**
No special procedures are required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**
Non-emergency personnel should be kept clear of the area.
SAFETY DATA SHEET

MAIZE STARCH

For emergency responders

Use personal protective equipment as required.

6.2. Environmental precautions

Not available

6.3. Methods and material 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. Prohibit smoking and open flames. Avoid sparks or other sources of static electricity.

6.4. Reference to other sections

See Section 8 for appropriate personal protective equipment. See Sections 2 and 7 for additional information on hazards and precautionary measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Store in a clean, dry, well ventilated warehouse away from odorous materials.

7.2. Conditions for safe storage, including any incompatibilities

Ambient. Store in a clean, dry, well ventilated warehouse away from odorous materials.

Special Sensitivity:

No special sensitivity.

Sensitivity to Mechanical Impact:

No

Sensitivity to Static Electricity:

Yes

Other precautions:

Use care to minimise dust generation in normal use conditions. Avoid dispersing the powder in the air. Prevent build-up of powder on surfaces. Mechanical handling of the powder on inadequately grounded equipment can result in static electrical discharges.

Materials to avoid:

None known.

7.3. Specific end use(s)

food starch

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits (TWA)

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>EXPOSURE LIMITS</th>
<th>EC INDICATIVE OCCUPATIONAL EXPOSURE LIMIT VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starch</td>
<td>10 mg/m3 TWA (total inhalable) 4 mg/m3 TWA (respirable)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate Engineering controls

General.
Personal protective equipment

- **Eye protection:** Wear safety glasses. Personal eye protection should conform to EN 166.
- **Skin protection:**
  - **Hand protection:** Gloves are recommended due to possible irritation. Gloves should conform to EN 374.
  - Other skin protection: Uniforms, coveralls, or a lab coat should be worn.
- **Respiratory Protection:** Use approved dust mask.
- **Other Protective Equipment:** Wash before eating, drinking, or using toilet facilities.
- **General Hygiene Conditions:** Not available
- **Thermal hazards** Not available

Environmental exposure controls Not available

---

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Powder</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>Starch odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point / Freezing point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No</td>
</tr>
<tr>
<td>Upper Flammable/Explosive Limit, % in air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Flammable/Explosive Limit, % in air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure at 50°C (kPa)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density at 20°C</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble Hot Water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Auto-ignition temperature  
Decomposition temperature  
Viscosity  
Explosive Properties  
Oxidising Properties

9.2. Other information

Solids  
Volatile Organic Compounds

SECTION 10: Stability and reactivity

10.1. Reactivity  
10.2. Chemical stability  
10.3. Possibility of hazardous reactions  
10.4. Conditions to avoid  
10.5. Incompatible materials  
10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects  
Acute toxicity;  
Skin corrosion/irritation;  
Serious eye damage/irritation;  
Respiratory or skin sensitization;  
Germ cell mutagenicity;  
Carcinogenicity;
Reproductive toxicity; Not available

STOT-single exposure; Not available

STOT-repeated exposure; Not available

Aspiration hazard; Not available

SECTION 12: Ecological information

12.1. Toxicity Low, but has a BOD contribution.
12.2. Persistence and degradability Readily biodegradable.
12.3. Bioaccumulative potential Low (degrades too rapidly)
12.4. Mobility in soil Unknown.
12.5. Results of PBT and vPvB assessment Not available
12.6. Other adverse effects Contributes to effluent BOD.
12.7. Additional Information Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste Disposal Methods: Waste disposal should be in accordance with existing Community, National and local regulations.
Empty Container Warnings: Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

SECTION 14: Transport information

IATA CLASSIFICATION Not classified as dangerous.
14.1. UN number Not Applicable
14.2. UN proper shipping name Not Applicable
14.3. Transport hazard class(es) Not Applicable
14.4. Packing group Not Applicable
IMDG CLASSIFICATION

14.1. UN number
Not Applicable

14.2. UN proper shipping name
Not Applicable

14.3. Transport hazard class(es)
Not Applicable

14.4. Packing group
Not Applicable

ADR/RID

14.1. UN number
Not Applicable

14.2. UN proper shipping name
Not Applicable

14.3. Transport hazard class(es)
Not Applicable

14.4. Packing group
Not Applicable

14.5. Environmental hazards
Not available

14.6. Special precautions for user
Not available

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EINECS
Unknown.

SPECIFIC PROVISIONS
Not available

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Abbreviations and acronyms
No data available

Key literature references and sources for data
No data available

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

<table>
<thead>
<tr>
<th>Classification according to Regulation (EC) Nr. 1272/2008</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Section 3 H Phrase(s)  Not available

For regulatory information, Contact:  elizabeth.fawkes@ingredion.com

EMERGENCY TELEPHONE: +32 3 575 5555

Changes since previous issue  Section 1 Section 16

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This document is issued on behalf of the Ingredion EMEA Company which is the Supplier invoicing for the Product. The respective details of each of the relevant Supplier companies are as follows:

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Ingredion Middle East Branch; Office 03B, Dubai, Dubai Biotechnology and Research Park, Dubai, United Arab Emirates; P: +971 44 53 4288

Rafhan Maize Products Co. Ltd. Rakh Canal East Road PO Box 62, Faisalabad 38060, Punjab, PAKISTAN T: 92-41-854-0121 F: 92-41-871-1016