

# Material Safety Data Sheet

## Maize Starch

### 1. Product Identification

Synonyms: Starch, Corn Starch

Molecular Weight: It is polymer of Glucose (Approximate: More Than 4000)

Chemical Formula: Can be written as  $(C_6H_{10}O_5)_n$

CAS Number : CAS # 9005-25-8

Product Code: 010, 011, 012, 013, and 016

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### 2. Composition/Information on Ingredients

<u>Ingredient</u>	<u>Percent</u>	<u>Hazardous</u>
Carbohydrates (as $C_6H_{12}O_6$ )	99.0	Not found

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### 3. Hazards Identification

#### Emergency Overview

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As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

#### Rated on the 1 to 10 scale as

**Health rating:** 0 – None

**Flammability rating:** 2 – Slight.

**Explosive Hazards:** Starch dust forms an explosive mixture with air.

Minimum explosive limit  $40\text{gms/m}^3$ , no defined  
Maximum limit.

**Reactivity rating:** 0 – None

**Contact rating:** 0 – None

**Lab protective equipment's:** Goggles, Lab Coat

**Storage colour code:** Orange (General Storage)

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#### Potential Health Effect

- **Inhalation :** No adverse health effect expected from inhalation
  - **Ingestion:** No adverse health effect expected from ingestion
  - **Skin contact:** No adverse health effect expected
  - **Eye contact:** No adverse health effect expected
  - **Chronic exposure:** Breathing dust may cause irritation to respiratory track.  
Prolonged or repeated exposure may cause skin and eye  
Irritation.
  - **Aggravation of pre-existing condition:** No information found
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## 4. First Aid Measures

- **Inhalation:** Remove to fresh air. Get medical attention for any breathing difficulty.
  - **Ingestion:** If large volumes were swallowed, give water to drink, and get medical advice.
  - **Skin contact:** Flush exposed area under running water and Wash exposed area with soap and water. Get medical advice if irritation develops.
  - **Eye contact:** Wash thoroughly with running water. Get medical advice if irritation develops.
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## 5. Fire Fighting Measures

**Fire:** As the most organic solids, fire is possible at elevated temperature or by contact with an ignition source.

**Fire Extinguishing Media:** Water spray, dry chemical, appropriate foam, or carbon dioxide.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (liquid, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:** None established.

**Ventilation System:** Not expected to require any special ventilation.

**Personal Respirators (NIOSH Approved):** Not expected to require personal respirator usage.

**Skin Protection:** Wear protective gloves and clean body-covering clothing.

**Eye Protection:** Use chemical safety goggles.

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## 9. Physical and Chemical Properties

**Appearance:** White to Pale Creamy fine free flowing Powder.

**Odour:** Odourless.

**Solubility:** Not soluble in Water or Alcohol.

**pH (10% Aque. Solution):** 4.5 – 7.5

**Bulk Density:** 0.55 to 0.70 grams per ml.

**Viscosity 10% Paste at 90°C**

**Measured by Brookfield Viscometer:** 48 to 52 Seconds

**Ignition Temperature:** 380°C.

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## 10. Stability and Reactivity

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Strong oxidizers.

**Conditions to Avoid:** Heat, ignition and incompatibles.

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## 11. Toxicological Information

### Acute effects

- May be harmful by inhalation, ingestion, or skin absorption.
- May cause irritation.

**Starch Toxicity Data:** No information found

## 12. Ecological Information

**Environmental Fate:** No information found.

**Environmental Toxicity:** No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

No special information found.

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## 15. Regulatory Information

No special information is available.

## 16. Other Information

**NFPA Ratings:** Health: **0** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

**Label Precautions:** None.

**Label First Aid:** Not applicable.

**Product Use:** Used in Textile Industries, textile sizing, etc.

**Revision Information:** No changes.

**Disclaimer:**

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**Prepared by:** Maize Products, A Division of Sayaji Industries Ltd., P.O. Kathwada, Ahmedabad – 382 430, Gujarat State, India.

**Phone number:** 91-79-2290 1581/85

**Telefax No:** 91-79-2290 1002/ 2290 1013

**E-mail Address:** [sales@maizeproducts.com](mailto:sales@maizeproducts.com) / [maize@maizeproducts.com](mailto:maize@maizeproducts.com)