



Archer Daniels Midland Company
Starch Products Technical Support
1251 Beaver Channel Parkway
Clinton, IA 52732
T 888/371-4408 F 563/244-5222

MATERIAL SAFETY DATA SHEET
(Complies with 29 CFR 1910.1200)

PRODUCT NAME: **Clinton 106 Corn Starch**

CAS NUMBER: 9005-25-8

ADM PRODUCT CODE: 028106

SYNONYM: Corn Starch, Unmodified Corn Starch, Common Corn Starch

SECTION I

MANUFACTURER: ADM Corn Processing
1251 Beaver Channel Parkway
Clinton, IA 52732

EMERGENCY NUMBER: (563)242-1121

INFORMATION: (888)371-4408

DATE: January 12, 2005

SECTION II Hazardous Ingredients/Identity Information

OSHA PEL: 15 mg/m³ total dust; 5 mg/m³ respirable fraction.

ACGIH TLV: 10 mg/m³ total dust; 5 mg/m³ respirable fraction

OZONE DEPLETING SUBSTANCES (ODS): No Class I or Class II material is used in the manufacture of this product or is contained in the product.

CONEG: Complies with the Conference of Northeast Governor's Model Toxic Legislation.

HAZARDOUS AIR POLLUTANT: This product does not contain any ingredient classified as a hazardous air pollutant in the Clean Air Act Amendment dated 11/15/90.

TSCA: Included on the TSCA inventory under the Chemical Abstracts number 9005-25-8 which is described as "starch dust". Product may be considered to be 100% of the material listed under this CAS number.

FDA: Produced in accordance with FDA Current Good Manufacturing Practices and is approved for use as an adhesive in food packaging under 21 CFR §175.105; approved for use as a paper additive under 21 CFR §182.90; and after *in situ* modification with ammonium persulfate or alpha amylase under 21 CFR §178.3520.

CALIFORNIA No chemicals listed are added to the corn wet milling process.
PROPOSITION 65: Detectable quantities present in corn are due to uptake from the soil. The State of California has determined “no significant risk” from these chemicals.

Spills of this material are not subject to any special reporting requirements under the Clean Water Act (CWA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This material is not subject to regulations promulgated under Sections 302, 304, 311, 312 and 313 of the Superfund Amendment and Reauthorization Act of 1986 (SARA, Title III).

SECTION III – Physical/Chemical Characteristics

Boiling Point	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density (AIR = 1):	N/A
Specific Gravity (H ₂ O=1):	1.50
Melting Point:	N/A
Evaporation Rate (Butyl Acetate=1):	N/A
Solubility in Water:	Insoluble
Appearance and Odor:	White Powder, Bland Odor

SECTION IV – Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition Temp, 716°F (380°C)
Flammable Limits (LEL)	0.04 oz/ft ³
Extinguishing Media:	Water, foam, carbon dioxide, dry chemical extinguishers

Special Fire Fighting Procedures:

Starch dust in high concentration is an explosive hazard. Avoid excessive dusting, open flames, open lights or welding in area of dry product if bag dumping.

Unusual Fire and Explosion Hazards:

May ignite and burn explosively when suspended in air and exposed to open flame or spark.

SECTION V – Reactivity Data

Stability: Stable
Incompatibility (Materials to Avoid): None
Hazardous Decomposition or Byproducts: None
Hazardous Polymerization: Will not occur

SECTION VI – Health Hazard Data

Routes of Entry

Inhalation:	Nuisance Dust
Skin Absorption:	No hazard
Ingestion:	Yes
Eyes:	Solids or dust may scratch surface of the eye, which can cause mechanical irritation.

Health Hazards (Acute and Chronic)

None. The following limit values for working atmospheres of inert or nuisance dust will apply. Total dust – 15 mg/m³; respirable fraction 5 mg/m³.

Carcinogenicity:

This material is not considered to be a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or the Occupational Safety and Health Administration (OSHA).

Signs and Symptoms of Exposure:

Excessive concentrations of particulates in workroom air may seriously reduce visibility, may cause unpleasant deposits in eyes, ears and nasal passages, or may cause temporary injury to the skin or mucous membranes by mechanical action.

Medical Conditions Generally Aggravated by Exposure:

The American Conference of Governmental Industrial Hygienists (ACGIH) has reported that so called ‘nuisance’ dusts have a long history of little adverse effect on lungs and do not produce significant organic disease or toxic effect when exposures are kept under reasonable control.

Emergency and First Aid Procedures:

- Eyes: Flush with clean lukewarm water (low pressure) until irritation subsides. If irritation persists, get medical attention.
- Ingestion: Treat symptomatically. FDA considers corn starch a Generally Recognized as Safe (GRAS) substance.
- Inhalation: If exposed to excessive levels of dust, remove to fresh air. Get medical attention if persistent cough or other symptoms develop.
- Skin: Wash with soap and water.

SECTION VII – Precautions for Safe Handling and Use

Steps to be taken in Case Material is Released or Spilled:

- Sweep up, avoid production of dust and/or flush with water (do not flush to storm sewer or waterway). Use only explosion proof vacuum and avoid production of dust. Materials should be placed in DOT approved containers. Follow all legislative requirements for non-hazardous waste disposal.

Precautions to be taken in Handling and Storing:

- Best storage is realized under dry, cool, odor-free conditions. Store away from heat source. Do not expose to open flame or sparks. Practice good housekeeping.

SECTION VIII – Control Measures

- Respiratory Protection: Use appropriate NIOSH/MSHA approved mask when necessary.
- Ventilation: Local exhaust ventilation should be used to minimize dust. Local exhaust must be appropriately wired to protect against ignition hazards posed by starch dust.
- Protective Gloves: Not required.
- Eye Protection: Safety glasses with side shields and/or chemical safety goggles should be worn in dust environments. The choice of protection should be appropriate to the task being performed.
- Other Protective Clothing or Equipment: Good industrial hygiene practice.
- Work/Hygienic Practices: Practice good housekeeping.

HMIS HAZARD RATING INDEX

0	HEALTH
1	FLAMMABILITY
0	REACTIVITY
A	PROTECTIVE EQUIPMENT

TRANSPORTATION DATA (49 CFR 172,101 and .102): Not listed

This MSDS is based upon a limited review of ADM files and standard toxicological handbooks. The information herein is furnished without warranty of any kind. This information should only be used as a supplement to information already in your possession concerning the product. The determination of whether and under what conditions the product should be used by your employees is yours to make.