MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCTS & COMPANY IDENTIFICATION

Tate & Lyle 2200 E. Eldorado Street Decatur, IL 62521 FOR EMERGENCY SOURCE INFORMATION CHEMTREC: 800-424-9300

For Non-Emergency Product & MSDS Information: 217-421-4411 8 AM – 5 PM Central Day-light Savings Time

TRADE NAME: Pure Food Powdered Starch SYNONYMS: None SUBSTANCE: Corn Starch CAS NUMBER: 9005-25-8

CREATED BY: Tate & Lyle CREATION DATE: September 26, 2005

REVISION DATE: November 15, 2011

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable or explosive. Minimize airborne dust generation and eliminate sources of ignition.

POTENTIAL ACUTE HEALTH EFFECTS FROM OCCUPATIONAL EXPOSURE:

INHALATION: Exposure to high airborne concentrations may cause mild respiratory irritation due to drying effects of dust.

SKIN CONTACT: Sustained exposure in a dusty manufacturing environment may result in mechanical irritation in the creases of the skin, particularly at the fingers. No health effects known or anticipated.

EYE CONTACT: May cause slight mechanical irritation from acute exposure. INGESTION: No effects known or anticipated.

CARCINOGEN STATUS: OSHA: Not listed. NTP: Not listed. IARC: Not listed.

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SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT Corn Starch

<u>CASRN</u> 9005-25-8

<u>% BY WEIGHT</u> Not available

SECTION 4 FIRST AID MEASURES

INHALATION: Remove to fresh air.

SKIN CONTACT: Clean with soap and water.

EYE CONTACT: Rinse well with eye wash solution or clean water. If symptoms develop, obtain medical attention.

INGESTION: Not applicable.

SECTION 5 FIREFIGHTING MEASURES

FIRE AND EXPLOSION HAZARD: Possibility of dust explosion. It is recommended that all dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions. Do not allow dust to accumulate on flat surfaces, on rafters or building structural components. See NFPA 61, Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and other related standards.

EXTINGUISHING MEDIA: Water spray, dry powder, carbon dioxide or media appropriate for surrounding fire. Use of water jet may cause explosive dust conditions.

FIREFIGHTING: Wear self-contained breathing apparatus and full protective gear. Use water spray to cool fire exposed containers.

FLAMMABILITY CLASS (OSHA): Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide and carbon monoxide.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL: Vacuum or sweep up spills. Minimize dust generation. If washing down spilled area is necessary, use copious amounts of water and control runoff. Follow local, state and federal regulations for product disposal.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store in a cool dry place. Store in a tightly closed container.

HANDLING: See NFPA 61, Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and other related standards. Use with adequate ventilation. Minimize dust generation and accumulation. It is recommended that all dust control equipment and material transport systems involved are engineered to prevent

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conditions contributing to dust explosions. Do not allow dust to accumulate on flat surfaces, on rafters or building structural components.

PACKAGING MATERIALS: The packaging material should have reasonable moisture and air barriers and comply with food regulations.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS:

Starch (CASRN 9005-25-8)

<u>OSHA PEL</u>: Total 15 mg/M³ Respirable 5 mg/M³ $\frac{\text{ACGIH TLV}}{\text{Total 10 mg/M}^3}$

VENTILATION: See NFPA 61, Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and National Fire Protection Association 650, Standard for Pneumatic Conveying Systems for Handling Combustible Materials, 1997 Edition and other related standards. Normal industrial hygiene measures should be sufficient for protection of employees from exposure to dusts. Local and mechanical exhaust is desirable when dumping bags.

EYE PROTECTION: Safety glasses are recommended. Safety goggles are desirable when dumping bags.

EMERGENCY WASH FACILITIES: Eye wash is recommended for conditions where dust generation is likely.

SPECIAL PROTECTIVE CLOTHING: None.

GLOVES: None.

RESPIRATOR: NIOSH approved N-95 dust respirator if working in situations that could generate large amounts of airborne dust.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS: See section 5.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: White powder. ODOR: Starch-like odor. MOLECULAR WEIGHT: Not applicable. MOLECULAR FORMULA: Not applicable. BOILING POINT: Not applicable. MELTING POINT: Not applicable. FLASH POINT: Not applicable. FLAMMABLE LIMITS: LEL: Not determined. UEL: Not determined.

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SPECIFIC GRAVITY: (H₂0 = 1): Not applicable.
SOLUBILITY IN WATER: Negligible.
PERCENT, VOLATILE BY WEIGHT (%) MOISTURE: 9.0-10.0.
pH: 4.0-6.5.
VISCOSITY: Not available.

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable.

CONDITIONS TO AVOID: Practices which produce dust or disperse finely divided dust in air. See NFPA 61, Standard for the Prevention of Fire and Dust Explosions in Agricultural and Food Processing Facilities, 2008 Edition, and other related standards.

INCOMPATIBILITIES: Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Nothing unusual.

POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGY INFORMATION

ACUTE HEALTH EFFECTS:

INHALATION: Exposure to high airborne concentrations may cause mild respiratory irritation due to drying effects of dust.

SKIN CONTACT: Sustained exposure in a dusty manufacturing environment may result in mechanical irritation in the creases of the skin, particularly at the fingers, or other drying effects. No health effects known or anticipated.

EYE CONTACT: May cause slight mechanical irritation from acute exposure.

INGESTION: No effects known or anticipated.

CHRONIC HEALTH EFFECTS: None known or anticipated.

SECTION 12 ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: No data. DEGRADABILITY: No data. BIOCONCENTRATION FACTOR (BCF): No data. OCTANOL/WATER PARTITION COEFFICIENT: No data.

SECTION 13 DISPOSAL INFORMATION

Follow local, state and federal regulations for product disposal. Not a hazardous waste unless contaminated with hazardous products.

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SECTION 14 TRANSPORTATION INFORMATION

D.O.T. CLASSIFICATION: Not regulated. UN NUMBER: Not applicable.

SECTION 15 REGULATORY INFORMATION

US FEDERAL REGULATIONS: CLEAN AIR ACT: ODS: Not applicable. TSCA STATUS: Not applicable. SARA (EPCRA) SECTION 313 (40 C.F.R. § 372.65): Not applicable.

STATE REPORTING REQUIREMENTS: CALIFORNIA PROPOSITION 65: Not applicable.

SECTION 16 OTHER

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