

MATERIAL SAFETY DATA SHEET

SECTION I - Product and Company Identification

Product: B20F, B22F, B200, B202, B210 unmodified corn starches

Chemical Name: Starch

Manufacturer: Grain Processing Corporation, P.O. Box 349, 1600 Oregon Street, Muscatine, Iowa 52761

24-Hour Emergency Assistance: 563-264-4304

For Other Information, Call: 563-264-4265

SECTION II - Ingredients

<u>Ingredient(s)</u>	<u>CAS No.</u>	<u>% by Wt.</u>	<u>OSHA PEL</u>		<u>ACGIH TLV</u>	
			<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>STEL</u>
Starch	--	~89	Nuisance particulate, 15 mg/m ³ of total dust	--	Nuisance particulate, 10 mg/m ³ of total dust	--

HMIS: Health - 0; Flammability - 3; Reactivity - 0; Personal Protection - E

Hazardous Materials Identification System (HMIS) Hazard Ratings:

0 - minimal hazard, 1 - slight hazard, 2 - moderate hazard, 3 - serious hazard, 4 - severe hazard.
Personal protection - E (safety glasses, gloves, and dust respirator).

SECTION III - Physical Data

Boiling Point (°F): Not applicable

Specific Gravity (H₂O=1): ~1.50

Vapor Pressure (mm Hg): Not applicable

Moisture (% by Wt.): ~11

Vapor Density (Air=1): Not applicable

Evaporation Rate (n-butyl acetate=1): Not applicable

Solubility in Water: Insoluble

Appearance and Odor: White granular powder; typical corn starch odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used): Not applicable

Extinguishing Media: Water

Special Fire Fighting Procedures: Use water spray to prevent dust-air mixture.

Unusual Fire and Explosion Hazards: Dust-air mixtures may be explosive. The minimum ignition temperature reported for dry corn starch, through 200 mesh, is 380°C (716°F). The minimum explosive concentration of a dust cloud is 0.04 oz/cu ft. Avoid open lights, flames, or welding in area of dry product.

SECTION V - Health Hazard Data

Route(s) of Entry: Inhalation - as dust. Skin - no hazard. Ingestion - No hazard, but not a food product.

Carcinogenicity: NTP - no. IARC - no. OSHA - no.

Threshold Limit Value: See Section II

Effects of Overexposure: Not applicable

Emergency and First Aid Procedures: None required

SECTION VI - Reactivity Data

Stability: Stable

Conditions to Avoid: Any air movement which can create clouds of starch. Open flames, smoking materials, hot coals of any type, welding operations, open lights, etc.

Incompatibility (Materials to Avoid): Strong oxidizing agents

Hazardous Decomposition Products: Oxides of carbon

Hazardous Polymerization: Will not occur

SECTION VII - Spill or Leak Procedures

Steps to Be Taken in Case Material Is Released or Spilled: Sweep up and/or flush clear with water; avoid production of dust. Eliminate all ignition sources.

Waste Disposal Method: Dispose of in approved solid waste disposal area per current regulations.

SECTION VIII - Special Protection Information

Personal Protective Equipment: Protective clothing, gloves and safety eyewear protection are not required, but recommended. Use appropriate NIOSH-approved respirator when needed. Respirator selection must be based on contamination levels found in the work area. Comply with OSHA standards 29 CFR 1910.134 Respiratory Protection and 29 CFR 1910.1000 Air Contaminants Permissible Exposure Limits. Eyewash and safety shower should be available. Follow good housekeeping and manufacturing practices.

Ventilation: Use general or local exhaust ventilation to meet OSHA PELs or ACGIH TLV requirements.

SECTION IX - Special Precautions

Precautions to Be Taken in Handling and Storing: Avoid handling procedures which produce dust.

Other Precautions: None required

SECTION X - Transportation (DOT Information)

Department of Transportation - Classification: Not applicable

Department of Transportation - Identification Number: Not applicable

GPC-MSDS
B20F, B22F, B200, B202, B210

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.



MATERIAL SAFETY DATA SHEET

SECTION I - Product and Company Identification

Product: SUPERBOND® T200, T300, T350, T400 carrier starches

Chemical Name: Trade secret

Manufacturer: Grain Processing Corporation, P.O. Box 349, 1600 Oregon Street, Muscatine, Iowa 52761

24-Hour Emergency Assistance: 563-264-4304

For Other Information, Call: 563-264-4265

SECTION II - Ingredients

<u>Ingredient(s):</u>	<u>CAS No.</u>	<u>% by Wt.</u>	<u>OSHA PEL</u>		<u>ACGIH TLV</u>	
			<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>STEL</u>
Trade secret	--	--	Nuisance particulate, 15 mg/m ³ of total dust	--	Nuisance particulate, 10 mg/m ³ of total dust	--

HMIS: Health - 0; Flammability - 3; Reactivity - 0; Personal Protection - E

Hazardous Materials Identification System (HMIS) Hazard Ratings:

0 - minimal hazard, 1 - slight hazard, 2 - moderate hazard, 3 - serious hazard, 4 - severe hazard.

Personal protection - E (safety glasses, gloves, and dust respirator).

SECTION III - Physical Data

Boiling Point (°F): Not applicable

Specific Gravity (H₂O=1): ~1.50

Vapor Pressure (mm Hg): Not applicable

Moisture (% by Wt.): ~11

Vapor Density (Air=1): Not applicable

Evaporation Rate (n-butyl acetate=1): Not applicable

Solubility in Water: Insoluble

Appearance and Odor: White granular powder; typical corn starch odor.

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used): Not applicable

Extinguishing Media: Water

Special Fire Fighting Procedures: Use water spray to prevent dust-air mixture.

Unusual Fire and Explosion Hazards: Dust-air mixtures may be explosive. The minimum ignition temperature reported for dry corn starch, through 200 mesh, is 380°C (716°F). The minimum explosive concentration of a dust cloud is 0.04 oz/cu ft. Avoid open lights, flames, or welding in area of dry product.

SECTION V - Health Hazard Data

Route(s) of Entry: Inhalation - as dust. Skin - no hazard. Ingestion - No hazard, but not a food product.

Carcinogenicity: NTP - no. IARC - no. OSHA - no.

Threshold Limit Value: See Section II

Effects of Overexposure: Not applicable

Emergency and First Aid Procedures: None required

SECTION VI - Reactivity Data

Stability: Stable

Conditions to Avoid: Any air movement which can create clouds of starch. Open flames, smoking materials, hot coals of any type, welding operations, open lights, etc.

Incompatibility (Materials to Avoid): Strong oxidizing agents

Hazardous Decomposition Products: Oxides of carbon

Hazardous Polymerization: Will not occur

SECTION VII - Spill or Leak Procedures

Steps to Be Taken in Case Material Is Released or Spilled: Sweep up and/or flush clear with water; avoid production of dust. Eliminate all ignition sources.

Waste Disposal Method: Dispose of in approved solid waste disposal area per current regulations.

SECTION VIII - Special Protection Information

Personal Protective Equipment: Protective clothing, gloves and safety eyewear protection are not required, but recommended. Use appropriate NIOSH-approved respirator when needed. Respirator selection must be based on contamination levels found in the work area. Comply with OSHA standards 29 CFR 1910.134 Respiratory Protection and 29 CFR 1910.1000 Air Contaminants Permissible Exposure Limits. Eyewash and safety shower should be available. Follow good housekeeping and manufacturing practices.

Ventilation: Use general or local exhaust ventilation to meet OSHA PELs or ACGIH TLV requirements.

SECTION IX - Special Precautions

Precautions to Be Taken in Handling and Storing: Avoid handling procedures which produce dust.

Other Precautions: None required

SECTION X - Transportation (DOT Information)

Department of Transportation - Classification: Not applicable

Department of Transportation - Identification Number: Not applicable

GPC-MSDS
T200, T300, T350, T400

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.