



*** SAFETY DATA SHEET ***

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	BATTER BIND S
RECOMMENDED USE	food starch
SUPPLIER	National Starch & Chemical Limited Prestbury Court Greencourts Business Park 333 Styal Road Manchester M22 5LW United Kingdom
	EMERGENCY TELEPHONE: +44 (0)161 435 3200 (business hours)

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY	Modified Starch		
<u>COMPONENT</u>	<u>EC NUMBER</u>	<u>CONCENTRATION %</u>	<u>EC SYMBOL</u> <u>RISK PHRASES</u>
No components which pose a risk.			

For full text of risk phrases, please refer to Section 16.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Nuisance dust with a possibility of dust explosion. Not classified as dangerous.

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/m ³ .
INGESTION	No hazard in normal industrial use.

4. FIRST-AID MEASURES

EYE	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.
INHALATION	Remove patient from exposure.
INGESTION	None required.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	CO ₂ ; Dry Chemical; Foam; Water Fog
SPECIAL FIREFIGHTING PROCEDURES	No special procedures are required.
FIRE & 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.
LOWER EXPLOSION LIMIT (%)	Not applicable
UPPER EXPLOSION LIMIT (%)	Not applicable
AUTOFLAMMABILITY	Not available
FLASH POINT	Not applicable

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES	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.
---------------------------	--

For safety and environmental precautions, please review entire Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	Ambient.
HANDLING/STORAGE	Store in a clean, dry, well ventilated warehouse away from odorous materials.
SENSITIVE TO STATIC ELECTRICITY	Yes
SPECIAL SENSITIVITY	No special sensitivity.
SENSITIVITY TO MECHANICAL IMPACT	No

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMITS
Starch	4 mg/m ³ TWA (respirable) 10 mg/m ³ TWA (total inhalable)

OCCUPATIONAL EXPOSURE CONTROLS

VENTILATION REQUIREMENTS	General.
EYE PROTECTION REQUIREMENTS	Wear safety glasses. Personal eye protection should conform to EN 166.
GLOVE REQUIREMENTS	Gloves are recommended due to possible irritation. Gloves should conform to EN 374.
CLOTHING REQUIREMENTS	Uniforms, coveralls, or a lab coat should be worn.
WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.
RESPIRATORY REQUIREMENTS	Use approved dust mask. Dust masks should conform to EN 149.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM	Solid
COLOUR	white
ODOUR	Starch odour.
ODOUR THRESHOLD	Not available
pH AS IS	Not applicable
OXIDIZING PROPERTIES	Not applicable
BOILING POINT	Not applicable
MELTING/FREEZING POINT	Not applicable
SOLUBILITY IN WATER	Soluble
PARTITION COEFFICIENT (n-octanol/water)	Not applicable
BULK DENSITY	Not available
EVAPORATION RATE	Not applicable
VAPOUR PRESSURE (mmHg)	Not applicable
VAPOUR DENSITY (air=1)	Not applicable
VOLATILES	None
VOLATILE ORGANIC COMPOUNDS	Not available
AUTOFLAMMABILITY	Not available
FLASH POINT	Not applicable

10. STABILITY AND REACTIVITY

STABILITY	Stable
HAZARDOUS DECOMPOSITION PRODUCTS	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.

11. TOXICOLOGICAL INFORMATION

EYE	Particulates may scratch eye surfaces and cause mechanical irritation.
SKIN	Low order of toxicity.
INHALATION	This product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m ³ .
INGESTION	No hazard in normal industrial use.
EFFECTS OF CHRONIC EXPOSURE	This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.

12. ECOLOGICAL INFORMATION

POTENTIAL EFFECT ON ENVIRONMENT	Contributes to effluent BOD.
ECOTOXICITY	Low, but has a BOD contribution.
AQUATIC TOXICITY	None Established
MOBILITY	Unknown.
PERSISTENCE AND DEGRADABILITY	Readily biodegradable.
POTENTIAL TO BIOACCUMULATE	Unknown.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS	Waste disposal should be in accordance with existing Community, National and local regulations.
EMPTY CONTAINER WARNINGS	Not needed.

14. TRANSPORT INFORMATION (See also section 9)

IATA CLASSIFICATION	Not classified as dangerous.
IMDG CLASSIFICATION	Not classified as dangerous.
ADR/RID	Not classified as dangerous.

15. REGULATORY INFORMATION

Nuisance dust with a possibility of dust explosion. Not classified as dangerous.

16. OTHER INFORMATION

REVISION	17/01/2005
REPLACES VERSION DATED	26/07/2000
ORIGINAL DOCUMENT DATED	13/06/1993
CHANGES SINCE PREVIOUS ISSUE	Section 1 Section 16
FOR REGULATORY INFORMATION, CONTACT:	Julie Scott Regulatory Affairs Manager, Starch Europe National Starch & Chemical Prestbury Court Greencourts Business Park 333 Styal Road Manchester M22 5LW England Telephone: +44 (0)161 435 3200

FULL TEXT OF RISK PHRASES FOR INGREDIENTS INDICATED IN SECTION 2:

No components which pose a risk.

Directives 1999/45/EC and 91/155/EEC have been considered when compiling this SDS; the information is provided for health and safety assessment by an industrial user. Reference should be made to any relevant local or national health, safety, and environmental legislation. This information does not constitute indication of suitability for specific uses.