



Safety Data Sheet

Material Name BUFFALO™ Corn Starch, Food Grade 034010

Section 1 - IDENTIFICATION

Material Name: BUFFALO™ Corn Starch, Food Grade 034010

Trade Names/Synonyms

Not available

Recommended Use

Food applications

Manufacturer Information

Ingredion Incorporated
5 Westbrook Corporate Center
Westchester, IL 60154 USA
Product Info/Emergency Phone: (708) 551-2600
Fax: (708) 551-2510
Business Hours: Mon - Fri, 7:30 a.m. - 5:00 p.m. (CST)

Ingredion Canada Incorporated
1600-90 Burnhamthorpe Road West
Mississauga, ON L5B 0H9 Canada
Product Info/Customer Service: (905) 281-7950
Fax: (905) 281-7951
Business Hours: Mon - Fri, 7:30 a.m. - 6:00 p.m. (EST)

24 hour Emergency telephone number:

1-800-424-9300 (CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classifications are accordance to the GHS classification requirements under 29 CFR 1910.1200

Combustible dust.

Signal Word

WARNING

Hazard Statement(s)

May form combustible dust concentrations in air

Precautionary Statement(s)

Prevention

Keep away from heat, sparks and flame. Prevent dust accumulation.

Response

None needed according to classification criteria.

Storage

Keep in a cool, dry place away from open flame.

Disposal

Dispose in accordance with all applicable regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
9005-25-8	Starch	~100

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Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Particulates not otherwise classified (PNOC).

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

Inhalation

If adverse effects occur, remove to uncontaminated area. Get medical attention, if needed.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed.

Eyes

Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention, if needed.

Ingestion

If a large amount is swallowed, get medical attention.

Most Important Symptoms/Effects

Acute

No information on significant adverse effects.

Delayed

No information on significant adverse effects.

Section 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Regular dry chemical, carbon dioxide, water spray
Large fires: Use regular foam or flood with fine water spray.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Combustible dust. High concentrations of product dust from this product may burn explosively if ignited by static charges or other ignition sources. The conditions under which this may occur are not readily predictable. Avoid flames, sparks, and other sources of ignition. Ground any equipment used in handling.

Hazardous Combustion Products

Combustion: carbon monoxide, carbon dioxide, smoke, irritating combustion byproducts

Fire Fighting Measures

Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

See Section 8 for personal protection information.

Methods and Materials for Containment and Cleaning Up

Avoid heat, flames, sparks and other sources of ignition. Eliminate all ignition sources if safe to do so. All equipment used when handling the product must be grounded. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Sweep up or gather material and place in appropriate container for disposal. If respirable dusts are generated, respiratory protection may be needed. Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat, sparks and flame. Eliminate all sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions.

Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep container tightly closed. Store in a clean, dry place. Avoid generating dust. Shelf life is 2 years. Keep separated from incompatible substances.

Incompatibilities oxidizing materials, combustible materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Starch (9005-25-8)

ACGIH: 10 mg/m³ TWA

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

OSHA (US): 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Appropriate Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

If eye contact is likely, wear chemical resistant safety goggles.

Skin Protection

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

Respiratory protection is not required under normal conditions of use.

If respirable dusts are generated, respiratory protection may be needed.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	powder	Appearance:	white powder
Color:	white	Physical Form:	powder
Odor:	No detectable foreign odor	Odor Threshold:	Not available
Taste:	Clean, typical taste	pH:	5.3
Melting Point:	Not available	Boiling Point:	Not available
Flash Point:	Not available	Evaporation Rate:	Not available
LEL:	Not available	UEL:	Not available
Vapor Pressure:	Not available	Vapor Density (air = 1):	Not available
Bulk Density:	Not available	Density:	Not available
Specific Gravity (water = 1):	Not available	Water Solubility:	Not available
Log KOW:	Not available	Coeff. Water/Oil Dist:	Not available
Auto Ignition:	Not available	Viscosity:	Not available
Molecular Weight:	Not available	Molecular Formula:	Not available
Moisture:	9.8%	Minimum Ignition Temperature:	Not available
Minimum Ignition Energy:	Not available		

Solvent Solubility

Soluble: No information is available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid generating dust. Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatible Materials

Oxidizing materials, combustible materials

Hazardous Decomposition

Combustion: carbon monoxide, carbon dioxide, smoke, irritating combustion byproducts

Section 11 - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

Information on Likely Routes of Exposure

Inhalation

Inhalation of dust may irritate upper respiratory tract.

Ingestion

No data available.

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Skin Contact

No data available.

Eye Contact

Overexposure to eyes may also cause immediate discomfort, pain, and mild but transient corneal injury.

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Carcinogenicity

Component Carcinogenicity

Starch (9005-25-8)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Other Hazards

No information is available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence and Degradability

This material is expected to biodegrade.

Bioaccumulative Potential

No data available.

Mobility

No data available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information

Not regulated as a hazardous material.

ICAO Information

Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

U.S Federal Regulations

FDA: Classified as Generally Regarded as Safe (GRAS)

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or applicable to OSHA process safety management requirements.

SARA 311/312 Hazardous Categories

Acute Health: No Chronic Health: No Fire: No Pressure: No Reactive: No

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U.S. State Regulations

The following components appear on one or more of the following state hazardous substances list:

Component	CAS	CA	MA	MN	NJ	PA
Starch	9005-25-8	No	Yes	Yes	No	Yes

Not regulated under California Proposition 65

Canada Regulations

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS CLASSIFICATION: None

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL. The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

Inventory List

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Starch	9005-25-8	Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	Yes

Additional Regulatory Information

EC No. 232-679-6

Section 16 - OTHER INFORMATION

Summary of Changes

New SDS: 09/04/13

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations.; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; Kow - Octanol/water partition coefficient; KR - Korea; LC50 - Lethal Concentration, 50%; LD50 - Lethal Dose, 50%; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States; WHMIS - Ingredient Disclosure List

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Other Information

The attached data has been compiled from sources which Ingredion Incorporated and the Ingredion group of companies, believe to be dependable and, to our knowledge and belief is accurate. However, Ingredion Incorporated and the Ingredion group of companies cannot make any warranty or representation respecting the accuracy or completeness of the data. We assume no responsibility for any liability or damages relating thereto, or for advising you regarding the protection of your employees, customers, or others. You should make your own tests to determine the applicability of such information to, or the suitability of any products for your specific use. Ingredion Incorporated and the Ingredion group of companies expressly disclaims all warranties, expressed or implied, including but not limited to, warranties of merchantability, accuracy, fitness for use or for a particular purpose, and noninfringement. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to sales of products by Ingredion Incorporated and the Ingredion group of companies. The INGREDION mark and logo are trademarks of the Ingredion group of companies.

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