

Safety Data Sheet

Material Name: BUFFALO™ Corn Starch, Food Grade 034010

SDS ID: Starches-020

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

BUFFALO™ Corn Starch, Food Grade 034010

Synonyms

Corn Starch

Product Description

Manufacture of food products.

Details of the supplier of the safety data sheet

Ingredion Incorporated
5 Westbrook Corporate Center
Westchester, IL 60154 USA

Ingredion Canada Corporation
1600-90 Burnhamthorpe Road West
Mississauga, ON L5B 0H9 Canada

Emergency Phone #: 1-800-424-9300
(CHEMTREC)

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(CHEMTREC)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

- Combustible Dust

GHS Label Elements

Symbol(s)

None needed according to classification criteria

Signal Word

WARNING!

Hazard Statement(s)

May form combustible dust concentrations in air

Precautionary Statement(s)

Prevention

None needed according to classification criteria

Response

None needed according to classification criteria

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Storage

None needed according to classification criteria

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
9005-25-8	Starch	100

Component Related Regulatory Information

ACGIH TLVs, as Particulates Not Otherwise Classified: 10 mg/m³ (inhalable fraction) 3 mg/m³ (respirable fraction). OSHA PELs, as Particulates Not Otherwise Regulated: 15 mg/m³ (total dust) 5 mg/m³ (respirable fraction).

Section 4 - FIRST AID MEASURES

Inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.

Eyes

Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

If a large amount is swallowed, get medical attention.

Most Important Symptoms/Effects**Acute**

None.

Delayed

None.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide. Water spray. Foam.

Unsuitable Extinguishing Media

None.

Special Hazards Arising from the Chemical

May form combustible dust concentrations in air. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Use explosion-proof electrical equipment. Contact with combustible material may cause fire.

Fire Fighting Measures

Remove product from area of fire. Wet the material with water to limit dust emission or explosion. Suitable extinguishing media. Avoid inhalation of the product. Stay upwind/keep distance from source.

Special Protective Equipment and Precautions for Firefighters

In case of fire: Wear self-contained breathing apparatus. Wear suitable protective clothing.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

See protective measures under point 7 and 8.

Methods and Materials for Containment and Cleaning Up

Avoid generation of dust. Remove all sources of ignition. Ensure that the equipment is adequately grounded. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take care for general good hygiene and housekeeping.

Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria

Store in accordance with local/regional/national/international regulations. Store in a well-ventilated place. Keep container tightly closed. Store in a dry place. Avoid generation of dust.

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Incompatible Materials

Oxidizing agents. Combustible substance.

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

Biological limit value

There are no biological limit values for any of this product's components.

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

Eye/face protection

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

Skin Protection

Protective clothing is 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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder	Physical State	solid
Odor	No detectable foreign odor	Color	white
Odor Threshold	Not available	pH	4.8 – 5.8
Melting Point	Not available	Boiling Point	Not available

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Freezing point	Not available	Evaporation Rate	Not available
Boiling Point Range	Not available	Flammability (solid, gas)	Not available
Autoignition	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	(not soluble)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	≈0.64 g/cc (≈40 lbs./ft ³)	KSt-value (bar x m/s)	(See “Other Information” below)
Taste	Clean typical taste		

Other Information

Material Dust Explosivity Parameters: KSt-value (bar x m/s): 199. Maximum explosion pressure (P_{max}) bar: 8.2. Maximum rate of pressure rise ((dp/dt)_{max}) bar/s: 733. Testing in accordance with American Society of Testing Materials (ASTM E1226). This data provides a relative measure of deflagration characteristics used for design of explosion protection systems. Refer to NFPA 654, 68, and 69 for guidance on explosion mitigation.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No known hazardous reactions.

Chemical Stability

The product is stable under storage at normal ambient temperatures.

Possibility of Hazardous Reactions

None.

Conditions to Avoid

Avoid generation of dust. Remove all sources of ignition.

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Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation.

Skin Contact

No data available.

Eye Contact

Irritation to eyes. Corneal opacity.

Ingestion

No data available.

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

Immediate Effects

No data available.

Delayed Effects

No data available.

Irritation/Corrosivity Data

No data available.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Starch	9005-25-8
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

Germ Cell Mutagenicity

No data available.

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Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Avoid release to the environment.

Component Analysis - Aquatic Toxicity

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

Persistence and Degradability

Biodegradable.

Bioaccumulative Potential

No data available.

Mobility

No data available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Contain and dispose of waste according to local 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:

Additional information: Not regulated as a hazardous material

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TDG Information:

Additional information: Not regulated as a hazardous material

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

FDA - Direct Food Additive

No components of this material are listed.

FDA - Food additives Generally Recognized as Safe(GRAS)

The following component(s) of this product are listed on the FDA - Food additives Generally Recognized as Safe(GRAS):

Starch (9005-25-8)

FDA - Food additives Generally Recognized as Safe(GRAS) –Select Committee on GRAS Substances(SCOGS)

The following component(s) of this product are listed on the FDA - Food additives Generally Recognized as Safe(GRAS) –Select Committee on GRAS Substances(SCOGS):

Starch (9005-25-8)

FDA - Food additives Permitted in Food on an Interim Basis

No components of this material are listed.

FDA - Substances Prohibited from use in human food

No components of this material are listed.

U.S. State Regulations

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

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

Not listed under California Proposition 65

Canada Regulations

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 meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

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Component Analysis - Inventory

Starch (9005-25-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

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