



LINECO WHEAT STARCH - SAFETY DATA SHEET

Revision Date: 17-Nov-2020

Revision Number: 1

1. Identification

Product Name: LINECO Wheat Starch
Product Numbers: L615-1002
Use of the Substance / Preparation: Food Ingredient L615-1008

Supplier: University Products/Lineco
517 Main Street,
PO Box 101
Holyoke, MA 01040

Phone: (413) 532-3372

2. Hazard(s) identification

Emergency Overview

Warning. May form combustible dust concentrations in air (during processing and handling). Contains wheat and may trigger an allergic reaction.

Appearance: White Physical State: Powder Odor: Odorless

This product IS classified as hazardous according to 29 CFR 1910.1200 (known as HCS 2012), amended to conform to the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Depending on the intended use, this product is classified as hazardous according to the criteria contained in the Hazardous Products Regulations (SOR/2015-17), also known as WHMIS 2015.

NOTE: Certain products covered under other Canadian legislation, including but not limited to cosmetics, devices, drugs or food (as defined in the Food and Drugs Act), pest control products (as defined in the Pest Control Products Act), consumer products (as defined in the Canada Consumer Product Safety Act), and Hazardous waste (being a hazardous product that is sold for recycling or recovery and is intended for disposal), are NOT subject to the label and SDS requirements of the Hazardous Products Regulations (SOR/2015-17), also known as WHMIS 2015. As supplied for use in food, an SDS and WHMIS compliant labeling are NOT required for this product. Since Canadian employers must still provide education and training on health effects, safe use, and storage, and in the interest of providing relevant product information to our customers, this SDS is being provided on a voluntary basis.

OSHA Defined Hazard(s): Combustible Dust
HPR Defined Hazard(s): Combustible Dust

Label Elements

NOTE: While label elements are provided within this SDS, under 29 CFR 1910.1200 (b)(5), products already subject to the labeling requirements of other specified federal acts, may be exempt from OSHA labeling.

Signal Word: Warning
Hazard Statement(s): May form combustible dust concentrations in air.

3. Composition/information on ingredients

Chemical Family Carbohydrate.

The following component(s) in this product are considered hazardous under applicable OSHA (USA) and/or WHMIS (Canada) or require disclosure as an air contaminant

Chemical Name	CAS-No	Weight %	North American Substance Hazard Class
Wheat starch	9005-25-8	100	29 CFR 1910.1000 Air Contaminant. See section 8 for OELs.

4. First-aid measures

Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids.

Skin Contact Wash off with warm water and soap.

Inhalation Move to fresh air.

Ingestion Health injuries are not known or expected under normal use. If individual shows signs of sensitization, allergy, or other adverse affects, seek medical advice.

General Advice Contains wheat, and may trigger an allergic reaction. When symptoms persist or in all cases of doubt seek medical advice.

Most important symptoms and affects, both acute and delayed

Eyes Dust may cause mechanical irritation to eyes resulting in redness or watering.

Skin Product dust may cause mild, mechanical irritation.

Inhalation Dust may cause irritation of respiratory tract. See section 8 of this sheet for exposure limits pertaining to wheat starch.

Ingestion Health injuries are not known or expected under normal use. May produce an allergic reaction.

Main Symptoms Repeated or prolonged exposure may cause irritation of eyes and skin. Inhalation of dust may cause breathing difficulties.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Special forms of treatment and immediate medical attention are not specified. Treat Symptomatically.

5. Fire-fighting measures

Flammable Properties

Fine dust dispersed in air may ignite. Risk of ignition followed by flame propagation or secondary explosions should be prevented by avoiding accumulation of dust, e.g. on floors and ledges. As with most organic solids, combustion is possible at elevated temperatures or by contact with an ignition source.

Extinguishing media

Suitable Extinguishing Media Water. Dry chemical. Carbon dioxide (CO₂). Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None known.

Special hazards arising from the substance or mixture

Hazardous Combustion Products Carbon monoxide (CO), Carbon dioxide (CO₂).

Specific Hazards Arising from the Chemical None known.

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge Yes. (as dust).

Advice for fire-fighters

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 0
Flammability 1

Stability and Reactivity 0
Physical hazard None known



6. Accidental release measures

Personal Precautions, Protective Equipment, and Emergency Procedures

Use personal protective equipment. Avoid dust formation. Avoid sparks, flames, static electricity discharges, etc. in the presence of dust.

Environmental Precautions

No special environmental precautions required.

Methods and Materials for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. For disposal information see section 13.

7. Handling and storage

Handling

Keep away from open flames, hot surfaces and sources of ignition. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities". Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Use equipment that is electrically grounded.

8. Exposure controls/Personal protection

Exposure Limits

Components with workplace control parameters.

Chemical Name	ACGIH TLV	OSHA PEL	Mexico	NIOSH
Wheat starch	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction		TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust

Biological Limit Values

No biological limit values have been listed for the component(s) of this product.

Appropriate Engineering Controls

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. However it is the duty of the user to verify this and follow given exposure limits at the workplace.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Personal Protective Equipment

Eye/face Protection.

If exposed to airborne dust, appropriate safety glasses with side-shields or safety goggles are recommended.

Skin and Body Protection

Protective clothing and gloves may be worn to reduce the potential of mechanical irritation.

Respiratory Protection

If exposed to airborne dust, at or above the noted exposure limits, use appropriate NIOSH approved (or equivalent) respiratory protection.



9. Physical and chemical properties

Appearance	White
Physical State	Powder
Odor	Odorless
Odor Threshold	No information available
pH	6
Flash Point	No information available
Autoignition Temperature	No information available
Boiling point	No information available
Melting/Freezing Point	No information available
Decomposition temperature	No information available
Oxidizing Properties	No information available
Water Solubility	Negligible
Evaporation Rate	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity / Relative Density	No information available
Bulk Density	45 lb/cu ft
Partition Coefficient (n-octanol/water)	No information available

10. Stability and reactivity

Stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to Avoid Avoid dust formation. Heat, flames and sparks.

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products Thermal decomposition may lead to release of. Carbon monoxide (CO). Carbon dioxide (CO₂).

11. Toxicological information

Information on toxicological effects

Acute toxicity	Based on available data, no evidence of acute toxicity. (Long history of safe use in food).
Skin corrosion/irritation	Based on available data, not, or only slightly irritating.
Serious eye damage/eye irritation	Based on available data, no evidence of serious eye damage / irritation.
Respiratory or skin sensitisation	Based on available data, not expected to be a skin or respiratory sensitiser.
Germ cell mutagenicity	Not classified.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Not classified.
STOT - single exposure	No evidence of toxicity.
STOT - repeated exposure	No evidence of toxicity.
Aspiration hazard	Based on available data, no known aspiration hazard.

Potential health effects

Eyes	Dust may cause mechanical irritation to eyes resulting in redness or watering.
Skin	Product dust may cause mild, mechanical irritation.
Inhalation	Dust may cause irritation of respiratory tract. See section 8 of this sheet for exposure limits pertaining to wheat starch.
Ingestion	Health injuries are not known or expected under normal use. May produce an allergic reaction.
Main Symptoms	Repeated or prolonged exposure may cause irritation of eyes and skin. Inhalation of dust may cause breathing difficulties.

12. Ecological information

Ecotoxicity

Contains no substances known to be hazardous to the environment. Contains no substances known to be not degradable in waste water treatment plants.

Persistence/Degradability	Biodegradable.
Mobility	Dispersible in water.
PBT and vPvB assessment	No information available.
Other adverse effects	Nothing specific known.

13. Disposal considerations

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

Waste Disposal Methods	Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.
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14. Transport information

Domestic transport regulations (USA)

DOT Not regulated

Domestic transport regulations (Canada)

TDG Not regulated

Domestic transport regulations (Mexico)

MEX Not regulated

International transport regulations

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. Regulatory information

International Inventories

The components of this product are reported in the following inventories:

Chemical Name	TSCA	DSL	NDSL	ICL	EINECS	ELINCS	AICS
Wheat starch	Yes ACTIVE	Yes	No	No	Yes 232-679-6	No	Yes

Chemical Name	ENCS ISHL	CHINA	PICCS	KECL	Taiwan	Turkey	NZIoC
Wheat starch	Yes (8)-98	Yes	Yes	Yes Annex 1 (KE-32128)	Yes	Yes 232-679-6	Yes

USA

Federal Regulations

Ozone Depleting Substances:

No Class I or Class II material is known to be used in the manufacture of, or contained in, this product.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372.

CERCLA/SARA 103-302

Sections 103-302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 103-302.

SARA 311/312 Hazardous Categorization

Refer to the OSHA hazard classification(s) provided in section 2 of this SDS.

State Regulations

California Proposition 65

Proposition 65 chemicals are not expected to be found in this product above those naturally present in their agricultural source. Proposition 65 exempts naturally occurring listed chemicals from an obligation to label.

State Right-to-Know

Component Information.

Chemical Name	Weight %	Massachusetts	Minnesota	New Jersey	Pennsylvania
Wheat starch	100	Yes	Yes	No	Yes

Canada

(NPRI) Canadian National Pollutant Release Inventory

No known component is listed on NPRI.

16. Other information

Prepared By: ADM - Product Regulatory Affairs
 Revision Date: 17-Nov-2020
 Revision Number: 1
 Reason for revision: Periodic review.

Abbreviations and acronyms

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values
CAS - Chemical Abstract Service
Ceiling - Ceiling Limit Value: Concentrations that should never be exceeded at any given time (instantaneous)
Delisted - Substances Delisted from Report on Carcinogens
DNEL - Derived No Effect Level
DOT - U.S. Department of Transportation
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
IARC - International Agency for Research on Cancer
IDLH - Immediately Dangerous to Life or Health
Known - Known Carcinogen
LC50 - Lethal concentration that produces fatalities in 50% of a given test population
LD50 - Median lethal dose of a given test population
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOAEL - No Observed Adverse Effect Level
NTP - National Toxicology Program
OECD - Organisation for Economic Co-operation and Development
OSHA - Occupational Safety & Health Administration
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits
PNEC - Predicted No-Effect Concentration
Present - Carcinogen or potential carcinogen to be identified under OSHA's Hazard Communication Standard
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
Skin notation - Potential for cutaneous absorption
STEL - Short Term Exposure Limit: Concentrations that should not be exceeded except for short periods of time (usually 15-minutes)
STOT - Specific Target Organ Toxicity
STV - Short Term Value (same as STEL)
TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA)
TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours)
Under Consideration - Under Consideration by the National Toxicology Program

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of sheet