



Safety Data Sheet

Transport Symbol(s)	WHMIS	NFPA	Personal Protective Equipment
Not controlled	Not controlled		

Original Preparation Date: 29-May-2009

Revision Date: 18-Nov-2015

Revision Number: 3

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

Product Name:

Crystalline Sorbitol Granular

Product Code:

177410

Contact Manufacturer:

Archer Daniels Midland Company

4666 Faries Parkway

Decatur, IL 62526, USA

Telephone Number: (+1) 217-424-5200

Emergency response telephone number:

Chemtrec 1-800-424-9300 (CCN 1635)

Use of the Substance / Preparation:

Food Ingredient

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning. May form combustible dust concentrations in air (during processing and handling). Product dust may cause mild, mechanical irritation.

Appearance

White

Physical State

Powder / Granules

Odor

Slight Sweet

Classification according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS):

OSHA Defined Hazard(s) | Combustible Dust

OSHA / GHS Label Elements

Signal Word: | Warning

Hazard Statement(s): | May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family | Sugar alcohol

Molecular Formula | C₆H₁₄O₆

Non-hazardous Components

Chemical Name	CAS-No	Volume %	North American Hazard Indicator
D-Glucitol	50-70-4	97-100	None known.

21CFR 1910.1000 Air Contaminant:

This product is not known to contain specific constituents with occupational exposure limits established by the region specific regulatory bodies at or above noted exposure levels. As dust (airborne, respirable particles), exposure limits pertaining to "particulates not otherwise regulated" have been provided in section 8.

4. FIRST AID MEASURES

Description of first aid measures**Eye Contact** Rinse thoroughly with plenty of water, also under the eyelids.**Skin Contact** Rinse with water. No special measures required.**Inhalation** Move to fresh air. No special measures required.**Ingestion** Clean mouth with water and afterwards drink plenty of water.**Most important symptoms and affects, both acute and delayed****Eyes** Contact with eyes may cause mechanical irritation.**Skin** Product dust may cause mild, mechanical irritation.**Inhalation** Health injuries are not known or expected under normal use. Excessive dust may cause obstruction of nasal passages. See section 8 of this sheet for exposure limits pertaining to nuisance dust or "particulates not otherwise regulated".**Ingestion** Health injuries are not known or expected under normal use. Over exposure may cause: Gastrointestinal disturbance.**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**

As with most organic solids, combustion is possible at elevated temperatures or by contact with an ignition source. 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.

Extinguishing media**Suitable Extinguishing Media** Water. Carbon dioxide (CO₂). Foam. Dry powder. 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** Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO₂), Smoke, Fumes.**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**

Avoid dust formation. Use personal protective equipment.

Environmental Precautions

Local authorities should be advised if significant spillages cannot be contained.

Methods and Materials for Containment and Cleaning Up

Shovel or sweep up. Avoid dust formation. Keep in suitable, closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling

Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities".

Storage

Keep containers dry and tightly closed to avoid moisture absorption and contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

As an airborne dust, exposure limits pertaining to "particulates not otherwise regulated" have been provided below.

Chemical Name	ACGIH TLV	OSHA PEL	Mexico	NIOSH
Particulates not otherwise regulated	TWA: 10 mg/m ³ inhalable particles, recommended TWA: 3 mg/m ³ respirable particles, recommended	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	not listed	not listed

Appropriate Engineering Controls Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

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, use appropriate NIOSH approved (or equivalent) respiratory protection.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White
Physical State	Powder / Granules
Odor	Slight Sweet
Odor Threshold	No information available
pH	approx 6
Flash Point	630 °C / 1166 °F
Autoignition Temperature	No information available
Boiling point	105 °C / 221 °F
Melting/Freezing Point	> 77 °C / 171 °F
Decomposition temperature	No information available
Oxidizing Properties	No information available
Molecular Weight	182.17
Water Solubility	Soluble
Solubility(ies)	Slightly soluble in: Alcohol. Methanol Acetic acid
Evaporation Rate	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Partition Coefficient (n-octanol/water)	No information available

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Possibility of Hazardous Reactions Hazardous polymerization does not occur.

Conditions to Avoid Avoid dust formation.

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO₂). Smoke. Fumes.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. (Long history of safe use in food).			
Chemical Name	Volume %	LD50 Oral	LD50 Dermal	LC50 Inhalation
D-Glucitol	97-100	15900 mg/kg Rat		
Skin corrosion/irritation	Based on available data, not, or only slightly irritating.			
Serious eye damage/eye irritation	Based on available data, not, or only slightly irritating.			
Respiratory or skin sensitisation	Not classified. Not expected to be a skin or respiratory sensitizer.			
Germ cell mutagenicity	Not classified. (Long history of safe use in food).			
Carcinogenicity	There are no known carcinogenic chemicals in this product.			
Reproductive toxicity	Not classified (Long history of safe use in food)			
STOT - single exposure	Not classified. No evidence of toxicity.			
STOT - repeated exposure	Not classified. No evidence of toxicity.			
Aspiration hazard	Based on available data, no known aspiration hazard.			

Potential health effects

Eyes

Contact with eyes may cause mechanical irritation.

Skin

Product dust may cause mild, mechanical irritation.

Inhalation

Health injuries are not known or expected under normal use. Excessive dust may cause obstruction of nasal passages. See section 8 of this sheet for exposure limits pertaining to nuisance dust or "particulates not otherwise regulated".

Ingestion

Health injuries are not known or expected under normal use. Over exposure may cause: Gastrointestinal disturbance.

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

Not applicable.

Mobility

Soluble in water.

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.

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	EINECS	ELINCS	AICS	ENCS ISHL	CHINA	PICCS	KECL	NZIoC
D-Glucitol	Yes	Yes	No	Yes 200-061-5	No	Yes	Yes (8)-50	Yes	Yes	Yes KE-31708	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

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes (when in the form of combustible dust)
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 63)

This product is not known to contain any HAPS.

State Regulations**State Right-to-Know**

No known components subject to "Right-To-Know" legislation.

Canada**WHMIS Product Classification**

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL

No known component is listed on the WHMIS ingredients disclosure list.

(NPRI) Canadian National Pollutant Release Inventory

No known component is listed on NPRI.

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

Mexico

Mexico - Grade

Slight risk, Grade 1

16. OTHER INFORMATION

Prepared By: WILD Flavors & Specialty Ingredients
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Reason for revision: This data sheet contains changes from the previous version in section(s) 3, 15. This version replaces all previous versions.

Abbreviations and acronyms

ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values
AICS - Australian Inventory of Chemical Substances (Australia)
CAS - Chemical Abstract Service
CHINA - Chinese Inventory of Existing Chemical Substances (China)
CLP - Classification, Labelling and Packaging, Regulation (EC)1272/2008
DOT - U.S. Department of Transportation
DSL - Domestic Substance List (Canada)
EINECS - European Inventory of Existing Commercial Chemical Substances (EU)
ELINCS - European List of Notified Chemical Substances (EU)
ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan)
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IATA - International Air Transport Association Dangerous Goods Regulations
ICAO - International Civil Aviation Organisation
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
KECL - Korean Existing and Evaluated Chemical Substances (Korea)
LC50 - Lethal concentration that produces fatalities in 50% of a given test population
LD50 - Median lethal dose of a given test population
MEX - NOM-002-SCT/2003 List of Hazardous Substances and Materials Most Commonly Transported
MEXICO - Mexico Occupational Exposure Limits
NFPA - National Fire Protection Association
NDSL - Non Domestic Substances List (Canada)
NIOSH - National Institute of Occupational Safety and Health
NZIoC - New Zealand Inventory of Chemicals (New Zealand)
OSHA - Occupational Safety & Health Administration
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits
PICCS - Inventory of Chemicals and Chemical Substances (Philippines)
STOT - Specific Target Organ Toxicity
TDG - Transportation of Dangerous Goods (Transport Canada)
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)
WHMIS - Workplace Hazardous Materials Information System

The information provided on this (M)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