

SAFETY DATA SHEET

Section 1 – Product and Company Identification

Material Name - Ancient Grain Milled Seed Products (Grinding and blending of cleaned seeds and/or whole seeds of any one or combination of the following: Amaranth, Quinoa, Sorghum, Teff, Millet, Buckwheat, Rice, Garbanzo Beans, Beans, Lentils, and Peas)

Chemical Category - Food Ingredient

Manufacturer - Ardent Mills, LLC; Ardent Mills, ULC: Molinos de Puerto Rico, LLC
1875 Lawrence Street
Denver, CO 80202
www.ardentmills.com

Telephone

General/Emergency - Call your Ardent Mills' Customer Service Rep

Preparation Date - 11/24/2015

Last Revision Date - 09/29/2021

Section 2 – Hazards Identification

Emergency Overview

WARNING

May form combustible dust concentrations in air (during processing).

Prevention - Avoid generating fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source

Response - When responding to explosion or any subsequent fire, DO NOT use high pressure extinguishing agent as this may spread the dust and may create an additional ignitable dust cloud.

Storage/Disposal - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Potential Health Effects

General – Contains various grains which may trigger an allergic reaction.

Eyes – Direct contact with eyes may cause temporary irritation

Skin – None known.

Inhalation – Dust may irritate the respiratory system. According to ACGIH, repeated and prolonged exposure to wheat flour may cause lung effects referred to as “Baker’s Lungs” or allergic sensitization resulting in what is referred to as “Baker’s Asthma”.

Ingestion – Expected to be a low ingestion hazard.

OSHA/GHS Label Elements – Not applicable due to FDA Labeling Exemption

Section 3 – Composition/Information on Ingredients

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Seed mixture	NDA	100%	NDA		

Section 4 – First Aid Measures

General Advice - Contains various grains which may trigger an allergic reaction.

Inhalation - Get medical attention if symptoms occur. Remove to fresh air.

Skin - No data available.

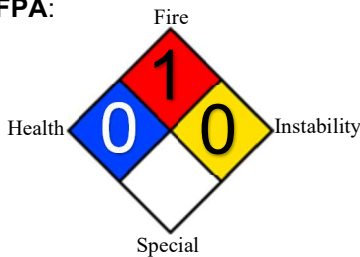
Eye - Get medical attention if symptoms occur. If contact with eyes directly, flush with gently flowing fresh water thoroughly.

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

Section 5 – Fire Fighting Measures

Extinguishing Media - Dry chemical, CO₂, foam or water fog.
Unsuitable Extinguishing Media - High pressure water spray may cause a combustible dust cloud.
Firefighting Procedures - FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: ALWAYS stay away from tanks engulfed in fire. LARGE FIRES: Move containers from fire area if can accomplish without risk.
Unusual Fire & Explosion Hazards - Fine dust (typically less than 420 microns) associated with this product may represent a combustible dust hazard. Ignition energy (Kst value) vary with particle size.
Hazardous Combustion Products - Carbon monoxide (CO), Carbon Dioxide (CO₂)
Protection of Firefighters - Wear positive pressure self-contained breathing apparatus (SCBA).
Flash Point - Not relevant.
Explosion Limits
Upper - Not relevant
Lower - Not relevant
Auto-ignition Temperature - Based on various grain type of material, 390 to 500° F (199 to 260° C)

NFPA:



Section 6 – Accidental Release Measures

Personal Precautions - No data available.
Emergency Procedures - Keep unauthorized personnel away.
Environmental Precautions - Avoid run off to waterways and sewers.
Containment/Clean-up Measures - Carefully shovel or sweep up spilled material and place in suitable container. Use appropriate Personal Protective Equipment (PPE)
Prohibited Materials - No data available.

Section 7 – Handling and Storage

Handling - Follow good manufacturing practices when handling this product. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 61: Standard for the Prevention of Fires and Dust Explosions in the Agricultural and Food Processing Facilities
Storage - No data available.
Special Packaging Materials - None required.
Incompatible Materials or Ignition Sources - None known.

Section 8 – Exposure Controls/Personal Protection

**Personal Protective Equipment
Respiratory**

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Protective safety glasses recommended.

Hands

- No data available.

Skin/Body

- None required for normal handling.

**General Industrial Hygiene
Considerations**

- Persons who handle grain products must follow good hygienic practices (i.e. wash frequently, and wear clean clothing)

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Exposure Limits/Guidelines			
	Result	ACGIH	United States - California
Milled Grain Products as Flour dust	TWAs	0.5 mg/m ³ TWA (inhalable fraction) <i>as Flour dust</i>	0.5 mg/m ³ PEL <i>as Flour dust</i>

Exposure Control Notations

ACGIH – Milled Wheat Products as Flour dust: Sensitizers

Exposure Limits Supplemental

ACGIH – Milled Wheat Products as Flour dust: TLV Basis – Critical Effects: (asthma, bronchitis, upper respiratory tract irritation)

Environmental Exposure Controls

No data available

Section 9 – Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	No data available.
Color	No data available.	Odor	No data available.
Taste	No data available.	Particulate Type	Not relevant
Particulate Size	Not relevant	Aerosol Type	Not relevant
General Properties			
Bulk Density	Varies according to grain type		
Volatility	Not relevant		
Flammability			
Auto Ignition	390° to 500°	MEC	No data
Environmental	Not relevant		

Section 10 – Stability and Reactivity

Stability

- Stable when kept dry under normal temperatures and pressures.

Hazardous Polymerization

- Hazardous polymerization will not occur.

Conditions to Avoid

- High humidity and/or wet conditions.

Incompatible Materials

- None known.

Hazardous Decomposition Products

- None known.

Section 11 – Toxicological Information

Other Information - This product has not been tested as a separate entity. No specific toxicological data is available for the ingredients.

Section 12 – Ecological Information

Ecological Fate - No data available
Persistence/Degradability - Readily biodegradable
Bioaccumulation Potential - No data available
Mobility in Soil - No data available
Other Information - Product has not been studied as distributed

Section 13 – Disposal Considerations

Product - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 – Transportation Information

DOT - Not regulated as a hazardous material.
IATA - Not regulated as a dangerous good.

Section 15 – Regulatory Information

Not any known regulatory list for hazardous materials.

Section 16 – Other Information

Preparation Date - 11/24/2015
Last Revision Date - 09/29/2021
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