Safety Data Sheet

Section 1 - Product and Company Identification

Material Name - **Milled Wheat Flour**
Chemical Category - Food Ingredient
Manufacturer - Ardent Mills, LLC
1875 Lawrence Street Denver, CO 80202
www.ardentmills.com
Telephone
General - Call your Customer Service Rep
Emergency - 1-800-424-9300 - CHEMTREC

Preparation Date - 10/01/2014
Last Revision Date - 10/01/2014

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

Eyes Direct contact with eyes may cause temporary irritation
Skin None known.
Inhalation Dust may irritate the respiratory system.
Ingestion Expected to be a low ingestion hazard.

Chronic Effects May cause allergic reaction in persons sensitive to wheat proteins.

Environmental effects Not expected to be harmful to aquatic organisms.

Physical Descriptions

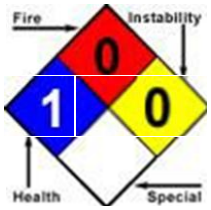
Form Solid
Color White
Odor No data available
Flash Point Not relevant

WHMIS Other Toxic Effects – D2A

EU Sensitizer – R42

GHS Specific Target Organ Toxicity Single Exposure – Category 3; Respiratory Tract Irritation, Skin Corrosion/Irritation – Category 3; Serious Eye Damage, Eye Irritation – Category 2B; Respiratory Sensitizer – Category 1

NFPA:



Potential Health Effects

Inhalation

Acute (Immediate) May cause irritation.

Chronic (Delayed) According to the ACGIH, repeated and prolonged exposure to flour may cause lung effects referred to as “Bakers Lungs” or allergic sensitization resulting in what is referred to as “Bakers Asthma”.

Skin

Acute (Immediate) Under normal conditions of use, no health effects are expected.

Chronic (Delayed) Under normal conditions of use, no health effects are expected.

Eye

Acute (Immediate) May cause irritation.

Chronic (Delayed) Under normal conditions of use, no chronic effects are expected.

Ingestion

Acute (Immediate) No effects are expected for most people. Listed food allergen.

Chronic (Delayed) Under normal conditions of use, no chronic effects are expected.

Section 3 - Composition/Information on Ingredients

Hazardous Components					
Chemical	**Identifier**	**%(weigh**	**LD50/LC5**	**Classifications According to Regulation/Directive**	**Comment**
Wheat flour	NDA	100%	NDA		

Section 4 - First Aid Measures

Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms occur.

Skin Wash with soap and water. Get medical attention if symptoms persist.

Eye If contact with eyes directly, flush with gently flowing fresh water thoroughly. If easy to do, remove contact lens. Get medical attention if irritation persists.

Ingestion Get medical attention if symptoms occur.

Section 5 - Fire Fighting Measures

Flammable Properties	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. This product is a dust explosion class St-1 at normal moisture level.
Extinguishing Media	Dry chemical, CO2, foam or water fog.
Unsuitable Ext. 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 you can do it without risk.
Unusual Fire and Explosion Hazards	Fine dust (less than 420 microns) associated with this product may represent a combustible dust hazard. Ignition energy (Kst values) vary with particle size.
Hazardous Combustion Products	Carbon Oxides
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	390 to 500 F(199 to 260 C)

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/Cleanup 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 NPPA 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

Pictograms

Respiratory	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or 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 Wheat Products as Flour dust	TWAs	0.5 mg/m3 TWA (inhalable fraction) *as Flour dust*	0.5 mg/m3 PEL *as Flour dust*

Exposure Control Notations
ACGIH

•Milled Wheat Products as Flour dust: **Sensitizers:** (Sensitizer)

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
Odor Threshold	Not relevant	**Physical and Chemical Properties**	Not relevant

General Properties

Boiling Point	Not relevant	**Melting Point**	Not relevant
Decomposition Temp	Not relevant	**Heat of Decomposition**	Not relevant
pH	Not relevant	**Specific Gravity/Relative Density**	Not relevant
Density	Not relevant	**Bulk Density**	Not relevant
Water Solubility	Not relevant	**Solvent Solubility**	Not relevant
Viscosity	Not relevant		

Volatility

Vapor Pressure	Not relevant	**Vapor Density**	Not relevant
Evaporation Rate	Not relevant	**VOC (wt.)**	Not relevant
VOC (Vol.)	Not relevant	**Volatiles (wt.)**	Not relevant
Volatiles (Vol.)	Not relevant		Not relevant

Flammability

Flash Point	Not relevant	**UEL**	Not relevant
LEL	Not relevant	**Autoignition**	390 to 500 F (199 to 260 C)
Self-Accelerating Decomposition Temperature (SADT)	Not relevant	**Heat of Combustion (ΔHc)**	Not relevant
Burning Time	Not relevant	**Flame Duration**	Not relevant
Flame Height	Not relevant	**Flame Extension**	
Ignition Distance	Not relevant		

Environmental

Half-Life	Not relevant	**Octanol/Water Partition coefficient**	Not relevant
Coefficient of water/oil distribution	Not relevant	**Bioaccumulation Factor**	Not relevant
Bioconcentration Factor	Not relevant	**Biochemical Oxygen Demand BOD/BOD5**	Not relevant
Chemical Oxygen Demand	Not relevant	**Persistence**	Not relevant
Degradation	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 this food ingredient. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Section 12 - Ecological Information

Ecological Fate No data available

Persistence/Degradability No data available

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. When this product as supplied is to be discarded as waste under 40 CFR 261.

Section 14 - Transportation Information

DOT

Not regulated as a hazardous material by DOT

IATA

Not regulated as a dangerous goods.

Section 15 - Regulatory Information

Not on any known regulatory list for hazardous materials.

Section 16 - Other Information

Preparation Date	10/01/2014
Last Revision Date	10/01/2014

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