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www.greatwesternmalting.com

Product Safety Data Sheet

Great Western Malting – Malted Grains and grain dust

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Substance name: Malted Grain and grain dust

Intended Use of the Product

Use of the substance/mixture: Ingredient for brewing and distilling and food manufacturing.

Name, Address, and Telephone of the Responsible Party

Company
Great Western Malting
18110 SE 34th Street, Suite 240
Vancouver, WA 98683
360 991 0888 www.greatwesternmalting.com

Manufacturer(s) Great Western Malting Company 1705 NW Harborside Drive Vancouver, WA, USA 98660	Great Western Malting 1666 Kraft Road Pocatello, ID USA 83204	
Emergency Telephone Number	360-693-3661	

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS-US classification
Comb. Dust

Label Elements

GHS-US labeling

Signal word (GHS-US): Warning

Hazard statements (GHS-US): May form combustible dust concentrations in air. Malt dust may form explosive/flammable mixtures with air in the presence of a source of ignition.

Other Hazards

Inhalation may aggravate those with pre-existing conditions including: skin, eye, and respiratory conditions.

Unknown acute toxicity (GHS US)

Not available

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Name: Superior Pale Malt Full text of H-phrases: see section 16

Name	Product Identifier	% (w/w)	GHS-US classification
Barley Malt	RR-04853-3	100	Comp. Dust
Grain, Dust	RR-00014-6	100	Comp. Dust

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation: When symptoms occur, go into open air and ventilate suspected area.
Skin Contact: Rinse with plenty of water.
Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion: Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.
Inhalation: Prolonged inhalation of dust may cause respiratory irritation.
Skin Contact: Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Eye Contact: Dust from this product may cause minor mechanical eye irritation.
Ingestion: None under normal use.
Chronic symptoms: May cause obstructive pulmonary disease, chronic bronchitis, asthma, and grain fever after long exposures. May cause respiratory sensitization and other respiratory problems in some individuals.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy water stream may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire hazard: Combustible Dust. Dust explosion hazard in air. Supports combustion at high temperatures. Under conditions of fire this material may produce: Carbon dioxide and/or Carbon monoxide. The product is not classified as flammable, but may combust on heating or with fire.
Explosion hazard: Avoid dust clouds in combination with static electricity. Dust clouds can be explosive.
Reactivity: Stable at ambient temperature and under normal conditions of use.

Advice for Firefighters

Precautionary measures fire: Not available
Firefighting instructions: Exercise caution when fighting any chemical fire. Do not allow run-off from firefighting to enter drains or water courses.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General measures: Avoid generating dust. Handle in accordance with good industrial hygiene and safety practice. Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation.

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

SECTION 7: HANDLING AND STORAGE

Methods and material for containment and clean up

Methods for cleaning up: Collect spilled material. Avoid dust formation when cleaning up spills. The vacuum cleaner should be equipped with a HEPA filter to prevent the release of particles during cleaning. Use a good one. Visible dust clouds, layers of dust on floors, edges and equipment, or dust that will escape from machinery indicate that action is needed to reduce dust at the source.

Cleaning method: A spill can make a smooth surface slippery, whether dry or wet.

Precautions for Safe Handling

Precautions for safe handling: Take precautionary measures against static discharge. Visible dust clouds, layers of dust on floors, ledges and equipment, or dust leaking from machinery indicate that action is required reduce dust at source.

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work

Conditions for Safe Storage, Including Any Incompatibilities

Storage conditions: Keep only in the original container in a cool, well-ventilated place away from: Direct sunlight, heat sources, and ignition sources. Keep container closed when not in use. Protect from moisture.

Incompatible materials: Strong acids. Strong bases. Strong oxidizers

Specific End Use(s) Ingredient.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Grain dust (oat, wheat, barley) (RR-00014-6)		
USA ACGIH	ACGIH TWA	4 mg/m³
USA OSHA	OSHA PEL (TWA)	10 mg/m³
United Kingdom HSE	PEL (TWA)	10 mg/m³
Canada COHSR	PEL (TWA)	10 mg/m³

Exposure Controls

Appropriate engineering controls: Provide adequate ventilation to minimize dust concentrations. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed.

Personal protective equipment: Dust formation: dust mask. Gloves. Protective goggles

Materials for protective clothing: Not available

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Not available

Respiratory protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are

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expected to exceed exposure limits.
Other information: When using, do not eat, drink or smoke.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical state	Solid
Appearance	Dust, pale brown to black
Odour	Mild Bean-like
Odour threshold	Not available
pH	6-8 (0.5% Soln)
Relative evaporation rate (butylacetate=1)	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Auto-ignition temperature	Ca. 220°C (for whole grain)
Decomposition Temperature	Not available
Flammability (solid, gas)	Not available
Lower flammable limit	Not available
Upper flammable limit	Not available
Vapour Pressure	Not available
Relative vapour density at 20 °C	Not available
Relative Density	0.47 to 0.71 tonnes/m3, depending upon type
Specific gravity density	Not available
Solubility	Not available
Log Pow	Not available
Log Kow	Not available
Viscosity, kinematic	Not available
Viscosity, dynamic	Not available
Explosion data – sensitivity to mechanical impact	Dust explosion characteristics: combustion energy: ca. 19 MJ/kg (for whole grains) minimum ignition temperature: 260–280°C minimum explosible concentration: 100-120 g/m3 minimum ignition energy: 100-300 mJ
Explosion data – sensitivity to static discharge	Not available
Other information	Angle of repose: 26° from the horizontal

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable at ambient temperature and under normal conditions of use.
Chemical Stability: Stable under normal conditions.
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Protect from moisture. Use good housekeeping practices during storage, transfer, and handling, to avoid excessive dust accumulation.
Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.
Hazardous Decomposition Products: Carbon oxides (CO, CO2)

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects -Product

Acute toxicity: Not classified
LD50 and LC50 Data: Not available
Skin corrosion/irritation: Not classified **pH:** 6-8 (0.5% Soln)
Serious eye damage/irritation: Not classified **pH:** 6-8 (0.5% Soln)
Respiratory or skin sensitization: Long-term exposure to grain dust may cause respiratory sensitisation (asthma).
Germ cell mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Not classified
Specific target organ toxicity (repeated exposure): Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): Not classified
Aspiration hazard: Not classified
Symptoms/injuries after inhalation: Prolonged inhalation of dust may cause respiratory irritation.
Symptoms/injuries after skin contact: Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/injuries after eye contact: Dust from this product may cause minor eye irritation.
Symptoms/injuries after ingestion: None under normal use.

Information on Toxicological Effects -Ingredient(s)

LD50 and LC50 Data: Not available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Not available

Persistence and Degradability

Barley Malt	
Persistence and degradability	Not established

Bioaccumulative Potential

Barley Malt	
Bioaccumulative potential MAGB document indicates: Not expected to bioaccumulate.	Not established

Mobility in Soil: Not available

Other Adverse Effects

Other information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG
UN Number: Not classified as hazardous
UN Proper Shipping Name: Not classified as hazardous
Additional information: Not classified as hazardous
Overland transport: Not classified as hazardous
Transport by sea: Not classified as hazardous
Air transport: Not classified as hazardous

SECTION 15: REGULATORY INFORMATION

US Federal regulations

This product or its components are not listed on any US federal regulatory lists

US State regulations

Grain dust (barley, oat, rye, wheat) (RR-00014-6)	
State or local regulations	United States – California – Workplace Exposure Limits – PEL United States – Connecticut – Workplace exposure limits – TWA United States – Massachusetts – Right to Know List United States – Michigan – Workplace Exposure Limits – TWA United States – Minnesota – List of hazardous substances United States – Minnesota – Permissible Exposure Limits – TWA United States – New Hampshire – Regulated Toxic Air Pollutants – Ambient Air Levels (AIL) – 24 hours United States – New Hampshire – Regulated Toxic Air Pollutants – Ambient Air Levels (AIL) – Annual United States – Oregon – Permissible Exposure Limits – TWA United States – Pennsylvania – Right to Know List United States – Tennessee – Workplace exposure limits – TWA United States – Texas – Review of Effect Levels – Long Term United States – Texas – Review of Effect Levels – Short Term United States – Vermont – Permissible Exposure Limits – TWA United States – Hawaii – Workplace Exposure Limits – TWA United States – Idaho – Workplace Exposure Limits – TWA United States – Washington – Permissible exposure limits – STEL United States – Washington – Permissible Exposure Limits – TWA

Canada Federal regulations

This product or its components are not included on any Canadian regulatory lists.

SECTION 16: OTHER INFORMATION

Data sources : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Comb. Dust	Combustible Dust

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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