



Safety Data Sheet

Canada Malting Co. Limited – Malted Grains and grain dust

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

Product Identifier

Substance name: Malted Grains 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

Canada Malting Co. Limited
3316 Bonnybrook Road SE
Calgary, AB, Canada T2G 4M9
Tel: 403-571-7000
Web: www.canadamalting.com

| | | |
|--|---|---|
| Manufacturer(s) Canada Malting 3316 Bonnybrook Road SE Calgary, AB, Canada T2G 4M9 | Canada Malting 579 Maureen Street Thunder Bay, ON, Canada P7B 5E8 | Canada Malting 205 rue Riverside Montreal, PQ, Canada H3C 2H9 |
| Canada Malting 36016 Highway 2A Red Deer County, AB, Canada T4G 0G8 | Canada Malting General Delivery Lyalta, AB, Canada T0J 1Y0 | Canada Malting Box 190 Bawlf, AB, Canada T0B 0J0 |
| Canada Malting Box 518 Beiseker, AB, Canada T0M 0G0 | Canada Malting Box 59, South Half 51322 Oak River, MB, Canada R0K 1T0 | Canada Malting Box 1, 1 CNR Right of Way Leross, SK, Canada S0A 2C0 |
| Canada Malting Box 119 Mariapolis, MB, Canada R0K 1K0 | Canada Malting 507 1 st Avenue E Watrous, SK, Canada S0K 4T0 | |
| Emergency Telephone Number | 403-571-7000 | |

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





SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Name: Grains and Malted Grains. 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.



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

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

| | | |
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| Grain dust (oat, wheat, barley) (RR-00014-6) | | |
| USA ACGIH | ACGIH TWA | 4 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) | 10 mg/m ³ |
| United Kingdom HSE | PEL (TWA) | 10 mg/m ³ |
| Canada COHSR | PEL (TWA) | 10 mg/m ³ |

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 expected to exceed exposure limits.

Other information: When using, do not eat, drink or smoke.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

| | |
|---|---|
| Physical state | Solid |
| Appearance | Dust, 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 oC | Not available |
| Relative Density | 0.47 to 0.71 tonnes/m ³ , 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: 30 g/m ³ minimum ignition energy: 35 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)



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 |

Bio accumulative Potential

| | |
|---|-----------------|
| Barley Malt | |
| Bio accumulative 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.



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 | U.S. -Massachusetts -Right To Know List U.S. -Minnesota -Hazardous Substance List U.S. -New Hampshire -Regulated Toxic Air Pollutants -Ambient Air Levels (AALs) -24-Hour U.S. -New Hampshire -Regulated Toxic Air Pollutants -Ambient Air Levels (AALs) -Annual U.S. -Pennsylvania -RTK (Right to Know) List U.S. -Texas -Effects Screening Levels -Long Term U.S. -Texas -Effects Screening Levels -Short Term |

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.