



Safety Data Sheet

Whole Grain

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Date of Issue: 05/20/2020

Version: 1.0

SECTION 1. IDENTIFICATION

1.1. Product Identifier

Product Form Mixture
Product Name Whole Grain
Synonyms Grain

1.2. Intended Use of the Product

Use of the Substance/Mixture Food.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer Contact Zeeland Farm Services, Inc. (ZFS)
2525 84th Ave
Zeeland, MI 49464
616-772-9042
www.zfsinc.com

1.4. Emergency Telephone Number

Emergency Number For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night
Within USA and Canada: 1-800-424-9300; Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US Classification COMBUSTIBLE DUST
Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US Labeling

Signal Word (GHS-US) Warning
Hazard Statements (GHS-US) May form combustible dust concentrations in air.
Supplemental Information Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	%
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EN (English US)

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Grain dust	Grain dust (oat, wheat, barley) / Grain dust (oats, wheat, barley) / Grain (oats, wheat, barley) / Grain / Oat grain dust / Grains	(CAS-No.) Not Applicable	< 100
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SECTION 4. FIRST AID MEASURES

4.1. 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	Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.
Skin Contact	Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.
Eye Contact	Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General	Not expected to present a significant hazard under anticipated conditions of normal use.
Inhalation	Dust may be harmful or cause irritation.
Skin Contact	Direct contact may cause irritation by mechanical abrasion.
Eye Contact	Eye contact with dust may cause mechanical irritation.
Ingestion	Ingestion may cause adverse effects.
Chronic	None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media	Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media	Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard	Combustible Dust.
Explosion Hazard	Product is not explosive. Fine dust clouds may form explosive mixtures with air.
Reactivity	Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire	Minimize generation of dust which may be combustible. Exercise caution when fighting any chemical fire.
Firefighting Instructions	Use water spray or fog for cooling exposed containers.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products	Carbon oxides (CO, CO ₂). Nitrogen compounds.
Other Information	Risk of dust explosion.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures	Avoid prolonged contact with eyes, skin and clothing. Avoid breathing dust. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
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6.1.1. For Non-Emergency Personnel

Protective Equipment	Use appropriate personal protective equipment (PPE).
Emergency Procedures	Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

For Containment:	Equip cleanup crew with proper protection.
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Methods for Cleaning Up: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed
Precautions for Safe Handling
Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations. Avoid breathing dust. Avoid prolonged contact with eyes, skin and clothing. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures
Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions
Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials
Strong oxidizers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Grain dust		
USA ACGIH	ACGIH TWA (mg/m ³)	4 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	4 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³
Particulates not otherwise classified (PNOC)		
USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ Respirable fraction 10 mg/m ³ Total Dust
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ Respirable fraction 15 mg/m ³ Total Dust

8.2. Exposure Controls

Appropriate Engineering Controls
Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

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Personal Protective Equipment

Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing

Chemically resistant materials and fabrics.

Hand Protection Eye and Face Protection Skin and Body Protection Respiratory Protection

Wear protective gloves.

Chemical safety goggles.

Wear suitable protective clothing.

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information

When using, do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	Solid
Appearance	Natural grain color
Odor	No distinct odor
Odor Threshold	No data available
pH	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	No data available
Flash Point	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Relative Density	No data available
Specific Gravity	1
Solubility	No data available
Partition Coefficient: N-Octanol/Water	No data available
Viscosity	No data available

9.2. Other Information

No additional information available

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

10.5. Incompatible Materials

Strong oxidizers.

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10.6. Hazardous Decomposition Products

Not expected to decompose under ambient conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral)	Not classified
Acute Toxicity (Dermal)	Not classified
Acute Toxicity (Inhalation)	Not classified
Skin Corrosion/Irritation	Not classified
Serious Eye Damage/Irritation	Not classified
pH	Not available
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Aspiration Hazard:	Not classified
Symptoms/Injuries After Inhalation:	Dust may be harmful or cause irritation.
Symptoms/Injuries After Skin Contact:	Direct contact may cause irritation by mechanical abrasion.
Symptoms/Injuries After Eye Contact:	Eye contact with dust may cause mechanical irritation.
Symptoms/Injuries After Ingestion:	Ingestion may cause adverse effects.
Chronic Symptoms:	None expected under normal conditions of use.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General Not classified.

12.2. Persistence and Degradability

Whole Grain

Persistence and Degradability	Not established.
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12.3. Bioaccumulative Potential

Whole Grain

Bioaccumulative Potential	Not established.
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12.4. **Mobility in Soil** No additional information available

12.5. Other Adverse Effects

Other Information Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations	Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information	Container may remain hazardous when empty. Continue to observe all precautions.
Ecology - Waste Materials	Avoid release to the environment.

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SECTION 14. TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

- 14.1. **In Accordance with DOT** Not regulated for transport
- 14.2. **In Accordance with IMDG** Not regulated for transport
- 14.3. **In Accordance with IATA** Not regulated for transport

SECTION 15. REGULATORY INFORMATION

15.1. US Federal Regulations

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SARA Section 311/312 Hazard Classes	Physical hazard - Combustible dust
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15.2. US State Regulations

Grain dust

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision 05/20/2020

Other Information This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

Additional Information This safety data sheet covers grain in its natural state and does not include chemicals that may be applied by subsequent handlers and/or distributors of this product. The information in this SDS was obtained from sources that we believe are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

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.

SDS US (GHS HazCom)