HANLEY FALLS ▪ COTTONWOOD ▪ TAUNTON
GRANITE FALLS — Farmers Cooperative Elevator Co. — MINNESOTA FALLS
MONTEVIDEO ▪ ECHO ▪ MINNEOTA ▪ GHENT

Safety Data Sheet

Whole Grain

Section 1 — Identification

Product Name: Grain

SDS Number: Grain

Intended Use: Food/Feed

Manufacturer: 1972 510th Street Hanley Falls, MN 56245

Emergency Health & Safety Number: 507-768-3448

Date Prepared: June 1, 2015

Section 2—Hazard(s) Indentification

Classification: *Organic Dust / Combustible Dust* **Label Elements & Signal Word:** *Warning*

Emergency Overview

Warning: May form combustible dust concentrations in air (during processing and handling). Product dust may cause mild, mechanical irritation.

Appearance	Physical State	Odor
Yellow/White	*Solid*	*Cereal*

Hazard Statement:

Class 2B eye irritant

May cause breathing difficulties if inhaled

May create a flash fire or explosion hazard if dust of a certain size is suspended in air at a sufficient concentration in a confined space and exposed to an ignition source.

Precautionary Statement:

May be a mechanical eye irritant. Rinse eyes with water for several minutes.

Avoid breathing dust. Excessive inhalation may affect nose, throat, and lungs.

Grain dust may burn if suspended in air and may create a flash fire/explosion hazard. Avoid ignition sources.

Section 3—Composition / Information on Ingredients

Component	CAS-No.	Concentration
Whole Grain	N/A	Up to 100%
Foreign Material (Such as organic plant material)	N/A	0 - 5%
Grain Dust	N/A	0 - 5%

Section 4—First Aid Measures

Inhalation: *Remove person from exposure. Seek medical attention for any breathing difficulty.*

Ingestion: *Health injuries are not know or expected under normal use.*

Skin Contact: *Wash skin with soap and water.*

Eye Contact: *Rinse eyes with water. Seek medical attention if in doubt.*

Notes to Physician: Treat symptomatically.

Section 5—Firefighting Measures

Hazardous Combustion Products: *Carbon Monoxide (CO), Carbon Dioxide (CO_2) Nitrogen Oxides (NO_x) Acrolein*

Special Fire Fighting Procedures: *Extinguish with water fog, dry chemical powders or foam. Do not use direct hose stream if dust can be dispersed into air. Dust dispersed by water stream in the presence of an ignitinon source could flash or explode*

Unusual Fire and Explosion Hazards: *Explosion hazard may exist for combustible dusts of certain particle size and moisture content when suspended in air at certain concentrations and subjected to an ignition source.*

Section 6—Accidental Release Measures

Clean Up:*Use soft bristle broom or vacuum approved for a class II hazardous location. Use non-sparking tools. Avoid dispersal of dust in the air. If compressed air is used for cleaning all sources of ignition must be removed. Dust should be kept to a minimum on all surfaces to avoid the potential of an explosion.*

Section 7—Handling and Storage

Handling: *Ensure adaquate ventilation. Avoid dispersing dust into air. Dispersed dust with an ignition source could cause a flash fire or explosion. Remove grain dust from processing equipement and surrounding area before using any hotwork tools such as welders, grinders, torches, or cutting tools. 29 CFR 1910.272(F) requires a hot work permit .*

Storage: *Maintain dry storage, avoid dispersion of dust in air, and avoid exposure to potential ignition sources.*

Section 8—Exposure Control / Personal Protection

Respiratory Protection: *Wear an approved NIOSH dust respirator whenever grain dust concentrations in the work area are above ACGIH TLV/OSHA PELS.*

Grain Dust *(Wheat, Oat, Barley)* **OSHA PEL**: *10 Mg/m³* **ACGIH TLV**: *4 Mg/m³ **

Other Grains: **OSHA PEL:** *15 Mg/m³ (total)* **OSHA PEL:** *5 Mg/m³ (respirable)* **ACGIH TLV:** *10 Mg/m³ **

* *TLV applies to nuisance particulates according to OSHA*

Ventilation: *Local exhaust if needed.*

Mechanical: *Make sure dust handling system and it's components retain dust within the system preventing dust from entering work areas. Use only appropriately classified and rated electrical equipment.*

Eye Protection: *Safety glasses or goggles if needed in dusty conditions.*

Work /Hygienic Practices: *Use good personal hygiene practices. Wash before eating or drinking.*
Avoid dust accumulations and control ignition sources. Use accepted engineering practices for grounding , explosion relief and venting on equipment and in areas where dust or static charges can accumulate.
Refer to appropriate OSHA, NFPA, and other applicable standards.

Section 9—Physical and Chemical Properties

Flash Point: *N/A*

Flammable Limits: **LEL:** *Variable* **UEL:** *Unknown*

Auto Ignition Temperature: *Unknown*

Appearance: *Whole Grain-natural grain color* *Grain Dust-Light, grayish or brown powder*

Upper/Lower Flamability or Explosive Limits: *When dispersed into air in sufficient concentrations grain dust can explode if there is an ignition source. Do not allow dust to be dispersed in air, even ÂÙ ÔÈÅ ÅØÔÉÎÇÕÉÓÈÉÎÇ ÁÇÂÎÔ - ÉÎÉ Í Õ Í ÅØÐÌÏÓÉÖÅ ÄÏÎÄÎÔÒÁÔÏÏÎ ÉÓ υυ ÇΤ Í ° 4ÈÉÓ ÄÁÎ ÄÈÁÎÇÅ ÂÁÓÅÄ ÏÎ Í ÏÉÓÔÒÒÅÏ ÐÁÒÔÉÃÌÅ ÓÉÚÅ ÄÁÏÏÉÄ ÐÒÏÐÁÒÔÉÁÓ ÁÎÄ ÔÈÅ ÓÐÅÄÉÉÉÃ ÇÒÁÉÎ 'ÒÁÉÎ ÄÕÓÔ ÈÁÓ ÎÏ ÉÑÁÓÈ ÐÏÉÎÔ, %, ÏÒ 5%, ÄÕÅ ÔÏ ÉÓÓ ÐÒÏÐÅÒÔÉÅÓ &ÉÒÅÆÇÈÔÉÇ Í ÅÁÓÒÒÅÁ ÁÒÅ ÔÈÅ ÓÁ Í Å Á Ï ÏÉÈÅÒ ÓÉ Í ÉÌÁÔ ÐÒÏÄÕÃÔÓ &ÏÒ ÁÎ ÅØÐÌÓÍÉÎ Î ÔÏ ÏÃÃÕÒ ÎÈÅ ÆÏÌÌ×ÉÇ Í ÕÔ ÅØÉÔÔ¸ ÏØÙÇÅÎ ÉÇÎÉÔÍ Î Ó ÏÕÒÇÅÎ ÇÒÁÉÎ ÄÕÔ ÉÎ ÓÕÓÐÅÎÏÍ ÁÎÄ Á ÄÏÎÉÎÄ ÓÐÁÃÅ 7ÉÔÈÏÔ Á ÄÏÎÉÎÄ ÓÐÁÃÅ ÇÒÁÉÎ ÄÕÔ ÄÁÎ ÓÔÉÌÌ ÉÇÎÎÉ*

Odor: *Cereal. Out of condition product may have a musty or sour smell.*

Vapor Pressure: *N/A* **Odor Threshold:** *N/A* **Vapor Density:** *N/A* **pH:** *N/A* **Melting/Freezing Point:** *N/A*

Solubility: (IES) *N/A* **Initial Boiling Point and Boiling Range:** *N/A*

Evaporation Rate: *N/A* **Decomosition Temperature:** *N/A* **Partial Coefficint N-Octanol/Water :** *N/A*

Section 10—Stability and Reactivity

Stability: **UnStable:** **Stable:** X **Conditions to Avoid:** *Dispersing dust in air above minimum explosive level and exposure to ignition source.*

Incompatibility: *None known*

Reactivity: None *known*

Hazardous Decomposition or Byproducts: *CO_2 H_2S and oxygen deficient atmosphere under improper storage conditions.*

Hazardous Polymerization: **May Occur:** **Will Not Occur:** X **Conditions to Avoid:** *N/A*

Section 11—Toxicological Information

Routes of Exposure: **Inhalation:** X **Skin:** X **Eyes:** X **Ingestion:** *Not likely*

Carcinogenicity: **NTP:** *No* **IARC Monographs:** *No* **OSHA Regulated:** *No*

Acute: *Based on available data, no evidence of acute toxicity.*

Chronic: *Repeated and prolonged inhalation of grain dust may cause irritation of respiratory tract.*

Signs and Symptoms of Exposure: *Irritation to the skin, eyes, nose or throat may occur. Some may experience coughing.*

MedicalConditionsGenerallyAggravatedbyExposure: *Allergies and respiratory ailments.*

Section 12—Ecological Information (Non-Mandatory)

Section 13—Disposal Considerations (Non-Mandatory)

Section 14—Transportation Information (Non-Mandatory)

Section 15—Regulatory Information (Non-Mandatory)

29 CFR 1910.1200 *defines combustible dust as a "hazard other than chemical".*
All electrical equipment must be suitable for use in hazardous atmospheres where there may be combustible dust present in accordance with 29 CFR 1910.307. NFPA 70, the Nation Electrical Code, contains guidelines for equipment suitable to meet this requirement.

Section 16—Other Information

This SDS 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 conditions or methods of handling, storage, use and disposal by these subsequent handlers and or distributors are beyond our control and may be beyond our knowledge.