

Material Safety Data Sheet

May be used to comply with

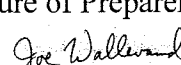
OSHA's Hazard Communication Standard, 29 CFR 1910.1200. This Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health
Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List) SUGARBEET PULP SHREDS WITH MOLASSES	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
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Section I

Manufacturer's Name American Crystal Sugar Company	Emergency Telephone Number (218) 236-4400
Address (Number, Street, City, State, and ZIP Code) 101 North 3rd Street Moorhead, MN 56560	Telephone Number for Information (218) 236-4403
Signature of Preparer (optional) 	Date Prepared 5/17/2005

Section II - Hazard Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s)):	OSHA PEL	ACGIH TLV	Other Limits Recommend ed	% (optional)
No Hazardous Components; it is the insoluble portion of the sugar beet root (<i>Beta vulgaris</i>) from which 99% of soluble material has been removed; enough beet molasses is added to this to bring the sucrose content to slightly less than 5%. It is supplied dry (less than 12% moisture).	N/A	N/A	N/A	N/A
Sugar (Sucrose), CAS 57-59-1	N/A	N/A	N/A	NMT 5%
Ash	N/A	N/A	N/A	NMT 1%
Water	N/A	N/A	N/A	NMT 12%
Miscellaneous Organics (fiber, proteins, etc)	N/A	N/A	N/A	> 80%

Section III - Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	0.65 – 0.70
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water: Mostly insoluble in water.			
Appearance and Odor: Asymmetric, curled, dark brown, translucent, 0.5 – 3.0 cm, extremely brittle ribbons having an amine odor and low bulk density (NMT 0.5% g/cc).			

Section IV - Fire and Explosion Hazard Data

Flash Point: Dust may ignite above 230°C (451°F)	Flammable Limits N/A	LEL N/A	UEL N/A
Extinguishing media: Ansul dry chemical. Water may be used on burning material that has been segregated from uninvolved product.			
Special Fire Fighting Procedures: Self-contained breathing apparatus, protective clothing.			
Segregation of involved, smoldering product from uninvolved product. The burning material can be extinguished with water. Avoid getting the uninvolved product wet.			
Unusual Fire and Explosion Hazards: Supports combustion only poorly.			
The relative explosion hazard of the dust is severe, similar to flour and grain products. As with any finely divided organic solid, dust may be explosive if mixed with air in critical proportions and in the presence of an ignition source.			
Spontaneous combustion may occur when product moisture exceeds 12%.			

Section V - Reactivity Data

Stability:	Unstable N/A	Conditions to Avoid:
Stable under ordinary conditions of use and storage	Stable √	Wetness of storage area.
Incompatibility (<i>Materials to Avoid</i>): Strong oxidizers such as nitric acid or sulphuric acid		
Hazardous Decomposition or Byproducts: Thermal decomposition may produce ammonia gas, carbon dioxide, carbon monoxide.		

Hazardous Polymerization	May Occur N/A	Conditions to Avoid:
N/A	Will Not Occur √	Moisture above 12% may cause spontaneous combustion.

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Prolonged exposure to dust could lead to respiratory distress.	Skin? N/A	Ingestion? Non-toxic
Health Hazards (<i>Acute and Chronic</i>): Dust is an eye irritant.			
Carcinogenicity: Product contains no ingredients currently classified as carcinogenic by NTP, IARC, or OSHA.	NTP? N/A	IARC Monographs? N/A	OSHA Regulated? N/A
Signs and Symptoms of Exposure: Mechanical irritation, redness, burning of eyes. Inhalation of the dust may cause coughing and upper respiratory tract irritation.			
Medical Conditions Generally Aggravated by Exposure: Asthmatics should avoid any dust exposure.			
Emergency and First Aid Procedures: Flush eyes with water. Move victim to fresh air. Get medical help if symptoms persist.			

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled: Collect with some mechanical device. Avoid generating dust explosion hazard.
Waste Disposal Method: Non-toxic and biodegradable. Discard as permitted by local regulatory agencies to determine approved disposal procedure at specific location.
Precautions to Be taken in Handling and Storing: Avoid getting material wet. Avoid excessive humidity.
Other Precautions: Avoid creating excessive dust.

Section VIII - Control Measures

Respiratory Protection (<i>Specify Type</i>): Dust Mask.		
Ventilation:	Local Exhaust √	Special N/A
	Mechanical (<i>General</i>) √	Other N/A

Protective Gloves: √	Eye Protection: Dust proof goggles
Other Protective Clothing or Equipment: N/A	
Work/Hygienic Practices: Avoid generation of dust. Avoid moist conditions.	

Section IX - Special Precautions

Precautions to be taken in Handling and Storing: Product is stable under ordinary circumstances, when maintained in its dry state and dust is minimized. Excessive moisture, dust generation, and sources of ignition are to be avoided.
Other Precautions: N/A

Each MSDS must be reviewed for correctness and completeness every three years.

Reviewed by _____ Reviewed by _____

Revision date _____ Revision date _____