

MATERIAL SAFETY DATA SHEET

CELANESE WATER SOLUBLE POLYMERS
 A Division of Celanese Corporation
 1 Riverfront Plaza
 Louisville, Kentucky 40202



EMERGENCY TELEPHONE NO: (502) 585-8119 INFORMATION TELEPHONE NO: (502) 585-8092 REVISION DATE: 8/19/85

I. IDENTIFICATION		PRODUCT NAME: Lo Loss	
PRODUCT CLASS Galacto-Mannans	<input checked="" type="checkbox"/> Guar Gum	<input type="checkbox"/> Guar Derivative	MANUFACTURER'S CODE I.D. 37750
DEPARTMENT OF TRANSPORTATION	HAZARD CLASSIFICATION Non-Regulated	SHIPPING NAME Compounds gas or oil well drilling	

II. PHYSICAL DATA		STATE: Solid	SOLUBILITY IN WATER % BY WT. FORMS GEL
APPEARANCE AND ODOR Off-white powder, bean like odor			
SPECIFIC GRAVITY (H ₂ O = 1) APPROXIMATELY 1.3			

III. HAZARDOUS INGREDIENTS		HAZARD	
MATERIAL Guar Gum CAS #9000-30-0	OSHA PEL	TLVs [®]	
Limits based on nuisance dust/particulate values	15 mg/M ³ Total	TWA	STEL
	5 mg/M ³ Respirable	10 mg/M ³ Total	
		5mg/M ³ Respirable	

IV. FIRE AND EXPLOSION HAZARD DATA	FLAMMABLE LIMITS IN AIR % BY VOLUME	LEL (See Below)	FLASH POINT (TEST METHOD)	Solid-Not Applicable
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EXTINGUISHING MEDIA Use water, carbon dioxide, dry chemical or foam.

SPECIAL FIRE FIGHTING PROCEDURES Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS Like all dry carbohydrate and most dry organic chemicals, guar gum dust carries a potential explosion hazard if the dust concentration in the air is too high. Good housekeeping procedures are required to reduce this potential hazard. The following are data taken from tests run for Celanese on guar and guar derivatives.

	Guar Gum	Guar Derivatives
Minimum Oxygen Concentration (%)	19	18
Minimum Ignition Energy (mJ)	840	40,000 ⁽¹⁾
Minimum Ignition Temperature: Cloud (°F)	950	950
Layer (°F)	420	390
Minimum Explosive Concentration (oz./ft. ³) ⁽²⁾	.8	.29

- (1) This material would not ignite at energies up to 40 joules, the highest tried. The material would ignite when subjected to a 24 watt continuous arc.
 (2) In larger vessels explosions may occur at lower dust concentrations.

V. REACTIVITY DATA	STABILITY	UNSTABLE	STABLE
			X

CONDITIONS TO AVOID Fire, excessive heat

INCOMPATIBILITY (MATERIALS TO AVOID) None Known

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS Carbon dioxide, carbon monoxide

HAZARDOUS POLYMERIZATION MAY OCCUR WILL NOT OCCUR X

To the best of our knowledge, the information contained herein is accurate. However, neither Celanese Corporation nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

HEALTH HAZARD DATA

ACUTE EFFECTS OF EXPOSURE	
INGESTION (SWALLOWING)	Practically non-toxic. Acute Oral LD ₅₀ (rats) >5g/kg.
INHALATION (BREATHING)	Guar dust may produce a respiratory allergen; response and/or irritation in some individuals.
SKIN (CONTACT AND ABSORPTION)	Essentially non-irritating; and not considered a sensitizer by skin contact based on laboratory animal tests. Like many organic dusts, prolonged or repeated skin contact may produce irritation.
EYE (CONTACT)	Product may cause eye injury or irritation which may persist for several days.
CHRONIC EFFECTS OF EXPOSURE	Based on medical study of exposed workers, some individuals may develop a respiratory allergenic response to guar dust. Persons with a history of respiratory allergies may have those conditions aggravated by exposure to guar dust.
EMERGENCY AND FIRST AID PROCEDURES	
EYE (CONTACT)	Flush with large amounts of water for at least 15 minutes. If any irritation persists, seek medical attention.
SKIN (CONTACT)	Wash with soap and water. If any irritation persists, seek medical attention.
INGESTION (SWALLOWING)	If large quantities are swallowed, seek medical attention.
INHALATION (BREATHING)	In case of exposure to high concentration of dust, remove to fresh air. Restore breathing. Seek medical attention.
OTHER HEALTH HAZARDS	No specific information available.
THRESHOLD LIMIT VALUE	OSHA PEL and ACGIH TLV for product are based on nuisance dust/particulate values.

SAFETY PRECAUTIONS	STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
	Avoid creating dust clouds and breathing dust. Wet material is slippery. <u>Dry powder:</u> Carefully scoop up or vacuum and place in disposal container. <u>Wet material:</u> Dike spill to prevent spreading. Absorb with inert material, collect and place in disposal container. Flush area with water to remove any residue; direct washings to sanitary sewer (if permitted).

WASTE DISPOSAL METHOD	Dispose in local sanitary landfill in accordance with federal, state and local regulations. This product as shipped is not defined by the U.S. EPA as a hazardous waste under RCRA.
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SAFETY PRECAUTIONS	RESPIRATORY PROTECTION (SPECIFY TYPE)
	Use with adequate ventilation. NIOSH approved dust or air-line respirators should be used where ventilation is inadequate. NIOSH approved air-line respirators with auxiliary escape air-tanks or self-contained breathing apparatus should be used in confined spaces.

VENTILATION	LOCAL EXHAUST	Recommended when appropriate to control employee exposure.
	MECHANICAL (GENERAL)	Not recommended as the sole means of controlling employee exposure.
	OTHER	None required

PROTECTIVE GLOVES	Impervious gloves	EYE PROTECTION	Safety eyewear
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OTHER PROTECTIVE EQUIPMENT	Safety shower and eyewash facility.
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SAFETY PRECAUTIONS	PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
	Store in dry place. Keep container closed to avoid moisture pickup. Practice reasonable care and cleanliness. Avoid creating dust clouds and breathing dust when emptying container.

OTHER PRECAUTIONS	This material is not expected to cause physiological impairment at low concentrations. Nevertheless, until a specific work place exposure limit is adopted, by the American Conference of Governmental Industrial Hygienists (ACGIH), we suggest that this material be treated as a nuisance dust or particulate in accordance with the recommendations of ACGIH and in compliance with the OSHA PEL.
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