Material Safety Data Sheet

Date Prepared 03/22/06

For Chemical Emergency (Spill Leak Fire Exposure or Accident)
CALL CHEMTREC Day or Night 800-424-9300
For International, Call 703-527-3887 (Collect Calls Accepted

PRODUCT NAME: ECOPOL-261S

For Product Information: (713) 723-8416
Chemical Name or Synonym: GALACTOMANNAN

2. COMPOSITION INFORMATION

Component	CAS #	HAZARD	%
GUAR GUM, HYDROXYPROPYLTRIMONIUM CHLORIDE	65497-29-2		
2. SILICA	7631-86-9	Y	0.1-10
3. DICARBOXYLIC ACID	110-17-8	Y	0.1-10

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:
Physical Appearance and Odor: off-white powder solid, bean-like odor.
Warning Statements:
MAY CAUSE ALLERGIC RESPIRATORY REACTION. MAY CAUSE EYE IRRITATION.
B. POTENTIAL HEALTH EFFECTS:
Acute Eye: Severe irritant
Acute Skin: Skin absorption not likely. May cause redness, inflammation, severe irritant.
Acute Inhalation: Some individuals may develop a respiratory allergenic response.
Acute Ingestion: Practically non-toxic
Chronic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:
Eye Exposure: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention if irritation develops or persists or if visual changes occur.
Skin Exposure: In case of contact, wash with plenty of soap and water. Seek medical attention if irritation develops or persists.
Inhalation: Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardiopulmonary resuscitation). Seek medical attention.
Ingestion: Ingestion of dry powder may result in the material swelling in the throat, possibly causing blockage of the throat and choking. If the victim is conscious and alert, give 1-2 glasses of water to drink to prevent esophageal

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obstruction. Do not give anything by month to an unconscious person. Seek medical attention. Do not leave victim unattended.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.

NOTES TO PHYSICIAN: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

Flash Point: > 93oC (200oF) Flammability Class: WILL BURN.

Method Used: Seta flash Closed Cup **Flammability Limits (vol/vol%): Lower:** No Data **Upper:** No Data

Extinguishing Media: Recommended (small fires): carbon dioxide, dry chemical, (large fire): water, aqueous foam

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Product will burn under fire conditions. Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.

Hazardous Decomposition Materials (Under Fire Conditions): oxides of carbon

Dust Explosivity Data:

Explosibilty Index : > 0.01, Type of Explosion is Rated WEAK Ignition Sensitivity....>0.1

Explosion Severity: < 0.7 Cloud Ignition Temp: 510 ^{0}C (950 ^{0}F)

Min Cloud Ignition Energy : 840 millijoules Layer Ignition Temp : 199 ^{0}C (390 ^{0}F)

Max. Explosion Pressure : No Data Max. Rate of Pressure Rise: No Data

Min. Explosion Concentration...0.3 oz/ft3

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

CAUTION: Spilled material may become slippery when wet. Do not leave traces of product on floors, ladders, etc., as this may present a slipping hazard. Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill: Follow procedure described below under Cleanup and Disposal of Spill

Cleanup and Disposal of Spill: Dry Material: Sweep up and place in an appropriate closed container (see Section 7: Handling and Storage). Wet Material: Absorb with an inert absorbent. Shovel up into an appropriate closed container (see Section7: Handling and Storage).

Environmental and Regulatory Reporting: Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures: Not Available

Handling: Avoid breathing dusts

THIS PRODUCT MAY PRESENT A DUST EXPLOSION HAZARD.

It is recommended that all dust control equipment and material transport systems involved in handling of this product contain explosion relief vents or explosion suppression system or an oxygen deficient environment. In addition, all

conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should not be flowed through non-conductive ducts or pipes. Use only appropriately classed electrical equipment.
Storage: Store in closed containers. Store in an area that is dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.
Exposure Guidelines: Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

PARTICULATES, NOT OTHERWISE CLASSIFIED, INHALABLE PARTICULATE

	TWA	STEL
ACGIH	10 mg/cu m	

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION

	TWA	STEL
OSHA	5 mg/cu m	

PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST

	TWA	STEL
OSHA	15 mg/cu m	

Engineering Controls: Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: wet processing methods to reduce dust generation.
Respiratory Protection: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations. Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified **by** the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against dusts, mists and fumes.
Eye/Face Protection: Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.
Skin Protection: Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance
Work Practice Controls: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:
Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Wash exposed skin promptly to remove accidental splashes of contact with this material.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section I for its exact specifications.

Physical Appearance:	off-white powder solid	**Odor:**	bean-like odor
pH:	5.0 to 7.5 (1% aq. solution)	**Specific Gravity:**	1.3 at 25°C (77°F)
Water Solubility:	gels	**Melting Point Range:**	Not Available
Boiling Point Range:	Not Available	**Vapor Pressure:**	Not Available
Vapor Density:	Not Available		

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal handling and storage conditions described in Section 7.
Conditions To Be Avoided: dusting conditions, extreme heat, open flame, sparks
Materials/Chemicals To Be Avoided: strong oxidizing agents
The Following Hazardous Decomposition Products Might Be Expected:
Decomposition Type: thermal**,** oxides of carbon
Hazardous Polymerization Will Not Occur.

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: No test data found for product
Acute Skin Irritation: No test data found for product
Acute Dermal Toxicity: No test data found for product
Acute Respiratory Irritation: No test data found for product.
Acute Inhalation Toxicity: No test data found for product
Acute Oral Toxicity: No test data found for product.
Chronic Toxicity: This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" human carcinogens. No additional test data found for product

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data found for product.
Chemical rate information: No data found for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.
Container Handling and Disposal: Any containers or equipment used should be decontaminated immediately after use.
EPA Hazardous Waste - *NO*

14. TRANSPORTATION INFORMATION

Transportation Status: The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.
US Department of Transportation Shipping Name: NOT REGULATED

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15. REGULATORY INFORMATION

Inventory	status	Inventory	status
UNITED STATES (TSCA)	Y	CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	N	AUSTRALIA (AICS)	Y
JAPAN (MITI)	N	SOUTH KOREA (KECL)	Y

Y = All ingredients are on the inventory. E = All ingredients are on the inventory or exempt from listing.
P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.
N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS

Inventory Issues: All functional components of this product are listed on the TSCA Inventory.

SARA Title III Hazard Classes:

Fire Hazard NO Reactive Hazard NO Release of Pressure NO
Acute Health Hazard NO Chronic Health Hazard NO

SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances: This product does not contain any hazardous substances as considered by SARA or CERCLA.

STATE REGULATIONS: This product does not contain any components that are regulated under California Proposition 65.

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R)

1 Health Hazard —Slight 2 Flammability —Moderate 0 Instability--Minimal

National Paint & Coating Hazardous Materials Identification System--HMS(R):

2 Health Hazard —Moderate I Flammability —Slight 0 Reactivity--Minimal

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value PEL - Permissible Exposure Limit
TWA - Time Weighted Average STEL - Short term Exposure Limit
NTP--National toxicology Program IARC - International agency for Research on cancer
ND - Not determined

Disclaimer: **This information is furnished without warranty, expressed or implied, as to accuracy for completeness. This information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user

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