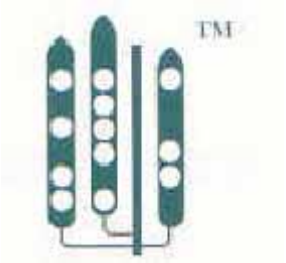
Habgen Guargums Limited

(Material Safety Data Sheet)



2nd Floor, United Bank Building, I. I. Chundrigar Road, Karachi-74000, Pakistan
Phone : (92-21) 3241 3283 **Fax :** (92-21) 3241 3930 **E-mail :**
habgen@habgen.com.pk
Factory : H-16, Landhi Industrial Estate, Landhi, Karachi-75120, Pakistan
Phone : (92-21) 3501 8678

Material Safety Data Sheet

1. Product and Company Information

Product Name: **Guar Gum Powder**

2. Composition / Information on Ingredients

Ingredient	CAS Number	% Weight	Exposure Limits
Guar Gum	9000-30-0	100	5 mg/m^3 (respirable) PEL-TWA 3 mg/m^3 (respirable) TLV-TWA 10 mg/m^3 (inhalable dust) TLV-TWA

Chemical Family: Carbohydrate

Formula: Approximately $(C_6H_{10}O_5)n$

3. Hazards Identification

Emergency Overview:

OSHA Hazardous Material: Yes

OSHA Hazard Categories: 1. Carcinogen (No) , 2.Corrosive (No), 3.Hi ghly Toxic (No),

4. Irritant (**Yes**), 5. Sensitizer (**Yes**), 6. Toxic (No),
7. Target Organ Effect Lung & Cutaneous (**Yes**).

Inhalation of d ust m ay c ause respiratory ir ritation an d possible lu ng injury with symptoms of sh ortness of b reath and reduced lu ng f unction. M ay c ause lif e-threatening allergic reaction in susceptible individuals.

Concentrations of dust suspended in the air present a fire and explosion hazard.

Guar gum is very slippery when wet.

Health Hazards:

Acute (single exposure) Health Effects:

Eye Contact: Contact may cause irritation based on studies with laboratory animals.

Skin Contact: Contact may cause dryness.

Inhalation: Inhalation of dust may cause irritation of t he nos e, t hroat an d respiratory pa ssages. Symptom s in clude co ughing, sore throat, na sal c ongestion, sneezing w heezing and shortness of b reath. M ay ca use life -threatening allergic reaction in susceptible individuals.

Ingestion: DO NOT INGEST. While this product is not toxic by ingestion, swallowing small a mounts could c ause c omplete b lockage of the mo uth, p harynx, t rachea, esophagus and/or ga strointestinal sy stem which m ay cau se c hoking, su ffocation and/or other life-threatening medical conditions. Get medical attention immediately.

Chronic (long-term exposure) Health Effects:

Inhalation: Overexposure to any nuisa nce du st m ay c ause lu ng inju ry. Sympt oms include cough, shortne ss of b reath, di fficulty breathing and re duced pulmonary function. Repeated exposures may cause allergic sensitization.

Carcinogenicity: None of the components of this product are listed as carcinogens or suspected carcinogens by OSHA, IARC or NTP.

Medical Conditions Aggravated by Exposure: Persons with pre-existing skin and respiratory disorders may be at an increased risk from exposure.

Physical Hazards:

Dust: It is well documented that a dust cloud will fuel an explosion in a confined area with sufficient oxygen and an ignition source. Surface (passive) and airborne (active) dust (fuel) is a potential hazard and the appropriate protective measures should be taken when handling guar outside of the bag in confined work spaces, dust collectors, dryers, mills, sifters, blenders, pneumatic conveyance systems, storage tanks, etc. Utilize good housekeeping to remove surface dust from floors, walls, beams, around equipment, etc...

Slick Surfaces: It is possible that an employee will be exposed to guar powder or dust in combination with water on work platform, floor or stair which will result in a slippery surface.

4. First Aid Measures

Eye: Flush immediately with large amounts of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. If irritation persists get medical attention.

Skin: First aid is not normally needed. Wash exposed skin with soap and water after use. If irritation or rash develops get medical attention. Use skin lotion if dryness occurs.

Inhalation: If symptoms of irritation or allergy develop, remove person from source of exposure to fresh air. If symptoms persist get medical attention.

Ingestion: Swallowing even small amounts may have serious, life-threatening effects. Get immediate medical attention.

5. Fire Fighting Measures

Flashpoint: Not Applicable
Autoignition Temperature: Not Determined
Lower Explosion Limit: 0.040 oz/cf
Upper Explosion Limit: Not Determined

Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use streams of water as dust dispersed by water streams can explode.

Special Fire Fighting Procedures: Wear positive pressure, self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Powder has the potential to form explosive mixtures with air. It is well documented that a dust cloud will fuel an explosion in a confined area with sufficient oxygen and an ignition source. Surface (passive) and airborne (active) dust (fuel) are a potential hazard and the appropriate protective measures should be taken when handling guar outside of the bag. Avoid creating dust. Keep away from heat, sparks and open flames. As with all dusty materials, use preventative measures including spark proof motors and ventilation to control dust. Utilize good housekeeping to remove surface dust from floors, walls, beams, around equipment, etc.

Combustion Products: Oxides of carbon and nitrogen.

6. Accidental Release Measures

Wear appropriate protective clothing and equipment. Caution: guar gum is very slippery when wet. Suspended dust may present a serious dust explosion hazard. Sweep up or vacuum, avoiding the creation of air borne dust. Use vacuum equipment specifically designed for combustible dusts. Collect into a suitable container for disposal. Keep spilled product away from flammable and combustible materials. Wash residual traces with hot water after sweep up is complete. Test area.

7. Handling and Storage

Handling: Avoid generating and breathing dust. Avoid eye contact. Use with adequate local exhaust ventilation and dust collection to maintain the concentration of airborne dust below the exposure limits. If clothing becomes contaminated, remove and launder before re-use. Wash thoroughly after handling. Keep product away from oxidizers and all sources of ignition including flames, electrical sparks, hot surfaces, pilot lights, etc.

Storage: Store bagged product in a dry environment between 50° F - 80° F with a relative humidity below 30% to maximize product shelf life.

Worker safety is not known to be compromised by storing bagged product in workable climates outside the suggested range.

8. Exposure Controls / Personal Protection

Engineering Controls: Consult a qualified engineer for evaluation of materials handling and explosion protection system(s).

Personal Protective Equipment (PPE)

Eye Protection: Safety glasses or goggles recommended.

Skin Protection: Rubber, plastic or leather gloves recommended.

Respiratory Protection: If the concentrations exceed the Threshold Value Limit (TLV), a NIOSH approved dust respirator, supplied air respirator or self-contained breathing apparatus is recommended. Select appropriate respiratory protection for respirable particulates based on consideration of the airborne workplace concentrations and duration of exposure. Select and use respirators in accordance with 29 CFR 1910.134 http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1, ANSI Z88.2 http://www.ansi.org/, the NIOSH Respirator Decision Logic and good industrial hygiene practice http://www.cdc.gov/niosh/homepage.html. To simplify selection of the appropriate respirator, OSHA has developed the Advisor Genius. Available online, the advisor genius allows a safety professional to input the conditions under which the respirator will be used and receive a recommendation of the type of respirator to use. The advisor also contains information about types of respirators and factors that affect respirator use. The online advisor contains a set of options as to the use of the respirator (fire fighting, welding, escape purposes, confined areas) and then generates a report with the relevant OSHA standard indicated. The advisor is available at . http://www.osha.gov/SLTC/etools/respiratory/respirator_selection.html.

9. Physical and Chemical Properties

Boiling Point: Not Applicable
Melting Point: Decomposes
Vapor Pressure: Not Applicable

Vapor Density (Air=1): Not Applicable
% **Solubility in Water:** Complete

Specific Gravity: Not Applicable
% **Volatile:** Not Applicable
Evaporation Rate (Butyl Acetate=1): Not Applicable
pH: 5-8
Octanol/Water Partition Coefficient: Not Applicable

Odor/Appearance: Creamy white powder with a bean-like odor.

10. Stability and Reactivity

Stability: Material is stable.
Incompatibility: Avoid high temperatures, sparks, open flames and moisture. Avoid contact with strong oxidizing agents.
Hazardous Reactions-Decomposition Products: Combustion may produce carbon dioxide, carbon monoxide and oxides of nitrogen.
Hazardous Polymerization: Will not occur.

11. Toxicological Information

Guar Gum: Oral rat LD50: 9.4g/kg

Guar gum is a natural food additive, although direct use in powder or pill form is banned by the FDA due to the risk of respiratory or gastrointestinal blockage

12. Ecological Information

No ecotoxicity data is available at this time.

13. Disposal Considerations

Dispose in compliance with all applicable federal, state and local regulations. Do not dump down sewers or drains as this may cause blockage.

14. Transport Information

U.S. Department of Transportation (DOT)

Proper Shipping Name:	Not Regulated
Hazard Class:	N/A
UN/NA Code:	N/A
Packing Group:	N/A
Labels Required:	N/A

International Maritime Dangerous Goods (IMDG CODE)

Proper Shipping Name:	Not Regulated
Hazard Class:	N/A
UN/NA Code:	N/A
Packaging Group:	N/A
Labels Required:	N/A

15. Regulatory Information

The United States Food and Drug Administration, the European Economic Community and the World Health Organization accept guar gum as a food additive/ingredient

providing it meets specified purity standards and dosage limitations. Maximum usage levels permitted may vary from country to country. Guar gum has been affirmed as GRAS by the United States Food & Drug Administration under title 21, CFR, part 184.1339; it is listed as item G.3 of Table IV, Division 16, of the Canadian Food and Drug Regulations and is referenced E-412 under the EEC Council Directives.

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) Reportable Quantity:

This product is not subject to CERCLA reporting requirements as it is sold.

OSHA Hazard Categories: Irritant, Sensitizer, Target Organ Effect.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 Hazard Categories: Fire Hazard, Acute Health
This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313: None

California Proposition 65: Guar gum is not a chemical known to the State of California to cause cancer or reproductive toxicity under the Safe Drinking Water and Toxic Enforcement Act of 1986.

Toxic Substances Control Act (TSCA): All components of this product are listed on the TSCA inventory or exempt from notification requirements.

Canadian Environmental Protection Act: All of the components of this products are listed on the Canadian Domestic Substances List or exempt from notification requirements.

European Inventory of Existing Commercial Chemical Substances (EINECS): All of the components of this product are listed on the EINECS Inventory or exempt from notification requirements.

Japan MITI: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS Inventory or exempt from notification requirements.

Canadian WHMIS Classification: Class B, Division 4 (Flammable Solid)

16. Other Information

NFPA Hazard Ratings: NFPA® Flammable (combustible dust) with representative diameter less than 420 microns (40 mesh).

Health: 1 Flammability: 3 Reactivity: 0

HMIS Hazard Ratings: HMIS® is intended to provide ratings for normal workplace use, rather than worst-case conditions

Health: 1 Flammability: 1 Reactivity: 0

17. Notice

Information contained in the company's technical literature is believed to be accurate. It is a condition to any sale that buyer conduct an examination of the products under its own operating conditions within a reasonable time after the products have been delivered to buyer and determined to its own satisfaction that the products delivered hereunder are of acceptable quality and are suitable for buyer's contemplated use. The company makes no representation or warranty of any kind, express or implied, with respect to its products or to the use of its products by the buyer in combination with other substances, whether as to merchantability, fitness for a particular purpose, or any other matter. Statements concerning the possible use of the company's products are not intended as recommendation to use the company's products in the infringement of any patent.

This document is confidential, may be legally privileged, and is for the intended recipient only. Access, disclosure, copying, distribution, or reliance on any of it by anyone else is prohibited and may be a criminal offence. Please destroy if obtained in error.

Copyright 2001

Issue: June 2023

18. Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstracts Service
CDC	Centers for Disease Control and Prevention
CFR	The Code of Federal Regulations
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	United States Environmental Protection Agency
FDA	United States Food and Drug Administration
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IMDG	International Maritime Dangerous Goods
LD50	Lethal Dose expected to cause death in 50% of the test animals
MITI	Ministry of International Trade and Industry

NFPA	National Fire Protection Association
NIOSH	CDC - National Institute for Occupational Safety
NTP	National Toxicological Program
OSHA	U.S. Department of Labor, Occupational Safety and Health Administration
PEL	OSHA - Permissible Exposure Limit
TLV	ACGIH - Threshold Limit Value
TWA	Time Weighted Average
UN/NA	United Nations / North America
US	United States
WHMIS	Workplace Hazardous Materials Information System