OCHNOLOGY SOLUTION PVT. LTD
Website: www.ochnology.com
Tel: +91 9286823642/43
Address: B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
E-Mail: projects@ochnology.com, bd@ochnology.com

Material Safety Data Sheet (MSDS / SDS)

Hydroxypropyl Guar (HPG)

SECTION 1: Identification

Product Name	Hydroxypropyl Guar (HPG)
Synonyms	HPG, Hydroxypropyl Guar Gum, Guar Hydroxypropyl Ether
CAS No.	39421-75-5
Recommended Use	High-temperature hydraulic fracturing fluid viscosifier; oilfield completion fluids; select cosmetic formulations
Manufacturer / Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
Telephone	+91 9286823642/43
Email	projects@ochnology.com, bd@ochnology.com

SECTION 2: Hazard(s) Identification

GHS Classification: Not classified as hazardous under GHS for acute health or environmental hazards based on available data. Combustible organic dust; may cause mild irritation as a nuisance dust.

Signal Word: None (not classified) – general good-handling-practice and combustible-dust precautions apply

Hazard Statements:

- Not classified as a hazardous substance or mixture under GHS/CLP for acute health or environmental hazards based on available data
- Combustible organic dust – finely divided powder dispersed in air can pose a combustible dust hazard in bulk processing
- May cause mild irritation to eyes and respiratory tract as a nuisance dust

Precautionary Statements:

- P210 – Keep away from heat, hot surfaces, sparks, open flames – No smoking
- P241 – Use explosion-proof electrical/ventilating/lighting equipment in dusty environments

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- P264 – Wash hands thoroughly after handling
- P271 – Use only outdoors or in a well-ventilated area
- P280 – Wear protective gloves/eye protection

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Concentration (w/w)
Hydroxypropyl Guar (guar gum, hydroxypropyl ether substituted)	39421-75-5	> 95%
Moisture / Residual Propylene Oxide (trace)	–	< 5% (combined)

SECTION 4: First-Aid Measures

Eye Contact	Rinse with plenty of water for several minutes to remove dust particles. Seek medical attention if irritation persists.
Skin Contact	Wash with soap and water. Generally non-irritating; seek medical attention if irritation develops.
Inhalation	Move to fresh air. If coughing or respiratory discomfort from dust persists, seek medical attention.
Ingestion	Rinse mouth with water. Not expected to be harmful in small amounts; seek medical attention if a large quantity is ingested or discomfort occurs. Note this industrial-grade material is not certified for food/pharmaceutical use.

SECTION 5: Fire-Fighting Measures

- Combustible organic solid; finely divided dust can pose a combustible dust explosion hazard in confined spaces
- Suitable extinguishing media: water spray/fog, foam, CO2, dry chemical – avoid methods that disperse settled dust near an ignition source
- Fire-fighters should wear SCBA in enclosed or heavily smoke-logged conditions

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SECTION 6: Accidental Release Measures

- Avoid generating dust during clean-up; use damp cleaning methods or HEPA-filtered vacuum where practical
- Wetted material becomes very slippery and swells – clean spill area promptly to prevent a slip hazard
- Sweep or vacuum into suitable containers for reuse or disposal, keeping away from ignition sources

SECTION 7: Handling and Storage

- Avoid generating and inhaling dust; use local exhaust ventilation and bond/ground equipment during bulk powder transfer
- Store in a cool, dry, well-ventilated area away from moisture
- Keep containers tightly sealed to prevent moisture pickup
- Keep away from ignition sources given the combustible dust consideration

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits	No specific OEL established; treat as Particulates Not Otherwise Regulated (nuisance dust), general reference 10 mg/m³ total dust, 8-hr TWA
Engineering Controls	Local exhaust ventilation and explosion-proof equipment at dust-generating process steps
Eye/Face Protection	Safety glasses or goggles recommended in dusty conditions
Hand Protection	General-purpose work gloves sufficient for routine handling
Respiratory Protection	Dust mask (N95 or equivalent) recommended where airborne dust levels are elevated

SECTION 9: Physical and Chemical Properties

Property	Unit	Value

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Appearance	–	Off-white powder
Odour	–	Faint, characteristic odour
Solubility in Water	–	Disperses and swells in cold or hot water; improved thermal stability versus native guar gum
pH (1% Solution)	–	5.5 – 8.0
Flash Point	–	Not applicable (solid); combustible dust hazard applies to fine powder

SECTION 10: Stability and Reactivity

- Stable under normal, dry conditions of storage, handling and use
- Notably more thermally stable than native guar gum, which is the defining property behind its high-temperature oilfield use
- Combustible dust hazard when finely dispersed in air – avoid ignition sources during bulk handling
- Incompatible materials: strong oxidising agents

SECTION 11: Toxicological Information

- Low acute oral and dermal toxicity based on published data for hydroxypropyl guar derivatives
- Not classified as carcinogenic, mutagenic, or toxic to reproduction based on available information
- This industrial grade is not certified for food or pharmaceutical use unless separately verified against the applicable standard

SECTION 12: Ecological Information

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- Not classified as hazardous to aquatic organisms under GHS criteria based on available data
- Considered biodegradable, consistent with its guar-gum-derived origin, though modification may alter biodegradation rate versus native guar gum
- Avoid unnecessary large-scale release to waterways as general environmental good practice

SECTION 13: Disposal Considerations

- Dispose of product and packaging in accordance with local, state and national regulations
- Not expected to require classification as hazardous waste under standard criteria
- Avoid disposal to drains in bulk – swelling on contact with water can cause blockages

SECTION 14: Transport Information

UN Number	Not applicable – not classified as Dangerous Goods
Proper Shipping Name	Not regulated for transport (IMDG / ADR / IATA / RID)
Transport Hazard Class	Not classified
Packing Group	Not applicable
Environmental Hazards	None identified under standard transport classification criteria

SECTION 15: Regulatory Information

- Widely listed on major chemical inventories (TSCA, REACH, ECL, etc.) as an existing/registered substance
- Buyers/importers should confirm labelling and inventory requirements applicable to their specific jurisdiction and end-use
- This SDS covers Hydroxypropyl Guar (HPG) specifically, a chemically modified guar derivative with its own distinct CAS number (39421-75-5) – native (unmodified) guar gum grades are covered by a separate SDS

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SECTION 16: Other Information

Revision Date: 20 July 2026

This SDS has been compiled based on general industry data and knowledge for Hydroxypropyl Guar (HPG) products of this type as commercially supplied. It is intended as a general handling and safety guide and does not replace a batch-specific SDS from the manufacturing mill, which should be obtained and reviewed for each shipment where regulatory submission is required.

Disclaimer: This Safety Data Sheet is prepared based on our current knowledge and information believed to be reliable for the product as typically supplied, and is intended as a general guide only. It does not constitute a warranty of any specific properties. Ochnology Solution Pvt. Ltd. reserves the right to modify this document without prior notice. Buyers/users are responsible for determining the suitability of this information for their own use, handling, and disposal practices, and for compliance with applicable laws and regulations in their jurisdiction.