

Material Safety Data Sheet (MSDS / SDS)

Xanthan Gum - Food and Pharmaceutical Grades

SECTION 1: Identification

Product Name	Xanthan Gum
Synonyms	Xanthan Gum, Corn Sugar Gum, E415, Xanthomonas Campestris Polysaccharide
CAS No.	11138-66-2
Recommended Use	Food thickener/stabiliser (E415); pharmaceutical excipient (BP/USP grade); oilfield drilling fluid additive; industrial thickening applications
Manufacturer / Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
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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, transient irritation to eyes and respiratory tract as a nuisance dust

Precautionary Statements:

- P210 – Keep away from heat, hot surfaces, sparks, open flames – No smoking
- 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)
Xanthan Gum (fermentation polysaccharide)	11138-66-2	> 91% (per BP/USP/food-grade assay range, see supplier COA)
Moisture / Ash (residual)	–	< 25% (combined, grade dependent)

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. Xanthan gum is a widely consumed food additive (E415) and is not expected to be harmful in typical amounts; seek medical attention if a large quantity is ingested or discomfort occurs.

SECTION 5: Fire-Fighting Measures

- Combustible organic solid; finely divided dust can pose a combustible dust explosion hazard in confined processing spaces (silos, mixers, pneumatic conveying)
- 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

SECTION 6: Accidental Release Measures

- Avoid generating dust during clean-up; use damp cleaning methods or HEPA-filtered vacuum where practical
- Wetted material becomes extremely slippery and highly viscous – clean spill area promptly to prevent a slip hazard and drain blockage
- 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 dust-collection systems at bulk-handling points (bag dumping, milling, pneumatic conveying)
- Bond and ground equipment during bulk powder transfer to control static discharge – combustible dust precaution
- Store in a cool, dry, well-ventilated area away from moisture and away from poisonous, harmful or corrosive substances
- Keep bags/containers sealed when not in use to prevent moisture pickup and microbial spoilage

SECTION 8: Exposure Controls / Personal Protection

Occupational Exposure Limits	No specific OEL established for xanthan gum; treat as Particulates Not Otherwise Regulated (nuisance dust), general reference 10 mg/m ³ total dust, 8-hr TWA
Engineering Controls	Local exhaust ventilation and dust collection at bulk-handling points; explosion-proof electrical equipment in dusty areas
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
Appearance	–	Cream-coloured to white/yellowish-white free-flowing powder (grade dependent)
Odour	–	Odourless to faint characteristic odour
Solubility in Water	–	Soluble in hot or cold water, forming a highly viscous solution; practically insoluble in organic solvents
pH (1% Solution)	–	6.0 – 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
- Hygroscopic – absorbs moisture from air; may support microbial growth if stored wet
- Combustible dust hazard when finely dispersed in air – avoid ignition sources during bulk handling, particularly in milling and processing facilities
- Incompatible materials: strong oxidising agents; keep away from poisonous, harmful or corrosive substances during storage

SECTION 11: Toxicological Information

- Very low acute oral and dermal toxicity; xanthan gum is a widely consumed food additive (E415) with an established, favourable safety profile, and is also used in pharmaceutical (BP/USP) formulations
- Not classified as carcinogenic, mutagenic, or toxic to reproduction based on available information

- Industrial/technical grades are not certified for food or pharmaceutical use unless separately verified against the applicable BP/USP/food-grade standard – confirm grade certification via the batch Certificate of Analysis

SECTION 12: Ecological Information

- Not classified as hazardous to aquatic organisms under GHS criteria based on available data
- Readily biodegradable, consistent with its status as a natural fermentation-derived polysaccharide
- Large releases to waterways may temporarily increase biological oxygen demand (BOD) and cause viscosity-related fouling – avoid unnecessary bulk release

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 – forms a highly viscous solution that 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

- Xanthan gum is approved as a food additive (E415) in the EU, and BP/USP-grade material is recognised for pharmaceutical excipient use in major pharmacopoeias
- Widely listed on major chemical inventories (TSCA, REACH, ECL, etc.) as an existing/registered substance
- This SDS covers xanthan gum broadly across food grade and pharmaceutical (BP/USP) grade – the hazard profile does not materially change between these grades, only purity, microbiological limits and certification differ
- Buyers/importers should confirm labelling and inventory requirements applicable to their specific jurisdiction and end-use; food/pharmaceutical-grade certification for the specific batch should be confirmed via the supplier's Certificate of Analysis

SECTION 16: Other Information

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This SDS has been compiled based on general industry data and knowledge for Xanthan Gum products of this type as commercially supplied, covering food grade and pharmaceutical (BP/USP) grade. It is intended as a general handling and safety guide and does not replace a batch-specific SDS or Certificate of Analysis from the manufacturing mill, which should be obtained and reviewed for each shipment.

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