SAFETY DATA SHEET

XANTHAN GUM

CAS No.: 11138-66-2

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

XANTHAN GUM
Polysaccharide gum; corn sugar gum; water-soluble biopolymer produced by fermentation of carbohydrates
CAS: 11138-66-2

Other means of identification

EINECS/ELINCS: 234-394-2 | Food additive: E415

Recommended use of the chemical and restrictions on use

Relevant uses: Thickening, stabilizing and suspending agent in food, pharmaceuticals and cosmetics; viscosifier in oilfield drilling fluids; suspending agent in agrochemical formulations. For industrial/food-grade use as per grade purchased.
Uses advised against: All uses not specified in this section or in section 7.3.

Supplier's details

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS: Not classified as a hazardous substance/mixture based on available data. This is expected to be a low hazard for usual industrial handling.

GHS label elements, including precautionary statements

No hazard pictograms or signal word are required. Precautionary statement (general good practice): Avoid contact with skin and eyes.

Other hazards which do not result in classification

Hygroscopic (absorbs moisture from air). Dust in sufficient quantity and reduced particle size is capable of creating a dust explosion. Forms smooth, slippery surfaces on floors when wetted, posing a slip hazard. Target organs: None identified.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Xanthan Gum

Identification	Chemical Name / Classification	Concentration
CAS: 11138-66-2 EINECS: 234-394-2	Xanthan gum – Not classified	100%

To obtain more information on the hazards of the substance, consult sections 11, 12 and 16.

Mixtures

Non-applicable

4. FIRST AID MEASURES

Description of necessary first-aid measures

By inhalation
Remove from exposure and move to fresh air immediately.

By skin contact
Get medical aid if irritation develops or persists. No specific treatment is normally necessary.

By eye contact
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

By ingestion
Wash mouth out with water. No specific treatment is normally necessary.

Notes to physician: Treat symptomatically and supportively.

Most important symptoms/effects, acute and delayed

Eye/skin: dust may cause mechanical irritation. Inhalation: dust may cause respiratory tract irritation. No chronic effects reported.

Indication of immediate medical attention and special treatment needed, if necessary

Not relevant

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide, or chemical foam.
Unsuitable: None known.

Specific hazards arising from the chemical	This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Autoignition temperature > 200°C. NFPA rating (estimated): Health 0; Flammability 1; Instability 0.
Special protective actions for fire-fighters	Wear a self-contained breathing apparatus in pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use proper personal protective equipment as indicated in section 8. Avoid generating dusty conditions.
Environmental precautions	No special environmental precautions required.
Methods and materials for containment and cleaning up	Vacuum or sweep up material and place into a suitable disposal container. Material forms smooth, slippery surfaces on floors when wet, posing an accident risk. Provide ventilation.
Reference to other sections	See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling	Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin and clothing; avoid breathing dust.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place in a tightly closed container.
Specific end use(s)	No special requirement beyond the uses specified in section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Identification	Occupational Exposure Limit Type	Value
Xanthan gum CAS: 11138-66-2	No specific ACGIH / NIOSH / OSHA limit established	General nuisance dust limits apply (e.g., ~10 mg/m³ total dust / ~3-5 mg/m³ respirable dust, typical industrial hygiene reference)

Appropriate engineering controls

Use adequate ventilation to keep airborne dust concentrations low.

B. Respiratory protection

NIOSH/MSHA or EN 149 approved respirator if exposure limits are exceeded or irritation is experienced.

C. Specific protection for the hands

Glove protection is not normally required for routine handling.

D. Eye and face protection

Chemical safety goggles per OSHA 29 CFR 1910.133 or EN 166.

E. Bodily protection

Protective garments not normally required for routine handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Powder
Appearance/Color	White to light yellow-brown
Odor	Mild, bland
Product Description	
pH	6.0 – 8.0 (1% aqueous solution) [typical, general reference]
Viscosity	~2000 cps (1% aqueous solution)
Solubility in water	Soluble
Bulk density	~0.7 – 0.8 g/cm³ (typical, general reference)
Molecular weight	> 10,000,000 (high molecular weight biopolymer)
Volatility / Thermal	
Boiling point	Not available
Melting/freezing point	Not available
Decomposition temperature	Not available
Vapour pressure	Not available
Vapour density	Not available
Evaporation rate	Not available
Flammability	
Flash point	Not applicable
Autoignition temperature	> 200°C
Upper / Lower flammability limit	Not available

Other information

Oxidising properties	Not available
Explosive properties	Dust explosion possible in sufficient quantity/fine particle size (see section 5.2)

10. STABILITY AND REACTIVITY

Reactivity	No specific reactivity data available.

Chemical stability	Stable under recommended storage and handling conditions.
Possibility of hazardous reactions	Hazardous polymerization will not occur.

Conditions to avoid

Dust Generation	Moist Air	Water Contact
Avoid	Avoid	Avoid uncontrolled contact (hygroscopic)

Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon monoxide, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

A. Ingestion (acute effect)
No hazard expected in normal industrial/food use.

B. Inhalation (acute effect)
Inhalation of dust may cause respiratory tract irritation.

C. Contact with skin and eyes (acute effect)
Dust may cause mechanical irritation to eyes and skin; low hazard for usual industrial handling.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)
Not listed by ACGIH, IARC, NTP, or CA Prop 65. No data available for teratogenicity, reproductive effects, mutagenicity or neurotoxicity.

Product-specific toxicological information

Identification	LD50 / LC50	Species
Xanthan gum CAS: 11138-66-2	Not available (RTECS unlisted)	–

12. ECOLOGICAL INFORMATION

Toxicity	No ecotoxicity data available.
Persistence and degradability	Biodegradable.
Bioaccumulative potential	No information available.
Mobility in soil	No information available.
Results of PBT and vPvB assessment	Non-applicable.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods	Waste generators must determine whether a discarded quantity of this material is classified as hazardous waste under applicable regulations. Dispose of in accordance with local, regional and national environmental regulations.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023)

14.1 UN number	Not regulated as a hazardous material
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None; physico-chemical properties see section 9
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by sea (IMDG)

14.1 UN number	Not regulated as a hazardous material
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by air (IATA/ICAO)

14.1 UN number	Not regulated as a hazardous material
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Food-grade xanthan gum is permitted as a food additive (E415) under FSSAI (India) and Codex Alimentarius regulations, subject to prescribed use levels. Not listed as a hazardous air pollutant or ozone depletor.

Other legislation

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Food Safety and Standards Act, 2006 (India) – for food-grade material

16. OTHER INFORMATION

Legislation related to safety data sheets

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3

Not applicable – this product is not classified as hazardous under GHS.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, to facilitate comprehension of this safety data sheet and the product label.

Principal bibliographical sources

Manufacturer's Material Safety Data Sheet (pre-GHS US format); well-established public reference data for CAS 11138-66-2.

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists | NIOSH: National Institute for Occupational Safety and Health | OSHA: Occupational Safety and Health Administration | NFPA: National Fire Protection Association | RTECS: Registry of Toxic Effects of Chemical Substances

Disclaimer: The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

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