



# Qingdao Unionchem Co., Ltd.

Add: #859 Hefei Road, Qingdao, China

Tel: 0086 532 8886 7112

Fax: 0086 532 6887 8221

Email: [sales@unionchem.com.cn](mailto:sales@unionchem.com.cn)

## **MATERIAL SAFETY DATA SHEET**

DATE: 2014-05-01

### 1. Chemical Product and Company Information

Chemical Name: Xanthan Gum

Chemical Family: Polysaccharide Gum

### 2. Composition/Information on Ingredients

Component	CAS NO.
Xanthan Gum	11138-66-2

### 3. Hazards Identification

#### EMERGENCY OVERVIEW

Appearance and Odor: White to Tan powder with slight odor

WARNING! COMBUSTIBLE DUST

#### POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure: Skin contact and inhalation

Eye Contact: No more than slightly irritating based on toxicity studies. Prolonged contact with the dry powder may cause drying or chapping of the skin.

Inhalation: Inhalation of the dust may cause coughing and sneezing.

Ingestion: Is not toxic if swallowed toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Refer to Section 11 for toxicological information.

### 4. First Aid Measures



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If in Eyes or on Skin: Immediate first aid is not likely to be required. However, this material can be removed with water. Wash heavily contaminated clothing before reuse.

If Inhaled: Immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air. Remove material from eyes, skin and clothing.

If Swallowed: Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice. Wash heavily contaminated clothing before reuse.

### 5. Fire Fighting Measures

Flashpoint: Not applicable

Extinguishing Media: In case of fire, use water, dry chemical, CO<sub>2</sub>, or alcohol foam.

Hazardous Products of Combustion: Carbon Dioxide, Carbon Monoxide

Unusual Fire and Explosion Hazards: This material as normally packaged and handled can contain sufficient fines to form an explosive mixture if dispersed in a sufficient quantity of air. Surfaces that may be covered with this product will become extremely slippery upon application of water.

Fire Fighting Equipment: Fire Fighters and others exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

### 6. Accidental Release Measures

In case of spill, do not blow material. Use vacuum equipment designed specifically for handling combustible dusts.

Note: The use of water wash down is not recommended unless the spilled material is already wet. Wet material on a walking surface will be extremely slippery. Wet spills should be thoroughly flushed with water until non-slippery.



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Refer to Section 13 for disposal information and Section 15 for reportable quantity information.

### 7. Handling and Storage

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF MATERIAL FROM EYES, SKIN, AND CLOTHING.

Keep away from heat, sparks and flame. Avoid creating dust cloud in handling transfer and clean up.

### 8. Exposure Controls/Personal Protection

**Eye Protection:** This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

**Skin Protection:** Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

**Respiratory Protection:** Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded (see below). Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 C.F.R. 1910.134.

**Ventilation:** Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.

**AIRBORNE EXPOSURE LIMITS:**



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OSHA and ACGIH have not established specific exposure limits for this material.

However, OSHA and ACGIH have established limits for particulates not otherwise regulated (PNOR) and particulates not otherwise classified (PNOC) respectively, which are the least stringent exposure limits applicable to dusts.

### OSHA PEL

### ACGIH TLV

15mg/m<sup>3</sup> (total dust) 8-hr TWA

10mg/m<sup>3</sup> (inhalable) 8-hr TWA

5mg/m<sup>3</sup> (respirable) 8-hr TWA

3mg/m<sup>3</sup> (respirable) 8-hr TWA

## 9. Physical and Chemical Properties

Molecular Weight: Approximately 1,000,000

Appearance: White to tan powder

Odor: Slight

pH: Approximately neutral (as a 1% solution)

Bulk Density: Approximately 50 lb./cu. ft.

Solubility in Water: Soluble, forming a viscous solutions, becoming a paste at concentrations greater than about 5%

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

## 10. Stability and Reactivity

Stability: Product is stable under normal conditions of storage and handling. Store in a cool, dry place to maintain product performance.

Materials To Avoid: Strong oxidizers

Hazardous Decomposition Products: Thermal decomposition products may include carbon dioxide and carbon monoxide.

Hazardous Polymerization: Will not occur.



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### 11. Toxicological Information

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties of the gums, they can form a paste or gel in the airway. Data from laboratory studies and from the scientific literature with this material are summarized.

Oral - rat LD50: >5,000 mg/kg

Eye Irritation - rabbit: not irritating

Skin Irritation - rabbit: not irritating

No skin allergy was observed in guinea pigs following skin exposure.

No adverse effects were observed in long-term feeding studies with rats (up to 1,000 mg/kg/day) and dogs (up to 1,000 mg/kg/day). No adverse effects were observed in a 3 generation reproduction study with rats (up to 500 mg/kg/day).

### 12. Ecological Information

The following data have been classified using the criteria adopted by the European Economic Community (EEC) for aquatic organism toxicity. A legend summarizing the classification scheme appears below.

96 - hr LC50; rainbow trout: 490 mg/L; practically nontoxic

48 - hr LC50; Daphnia Magna: 980 mg/L; practically nontoxic

96 - hr LC50; Mysid shrimp, using 2 lb./bbl. xanthan gum in standard drilling mud: >500,000 ppm suspended particulate phase.

Legend for Aquatic Organism Toxicity (Journal of the European Communities, Annex VII A, Section 5.2.1)

Values

Classifications

LC50 or EC50 < or = 1.0 mg/L



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Very Toxic

LC50 or EC50 > 1.0 mg/L and < or = 10 mg/L

Toxic

LC50 or EC50 > 10 mg/L < or = 100 mg/L

Harmful

LC50 or EC50 > 100 mg/L

Practically Nontoxic

BOD5 is approx. 200 mg O<sub>2</sub>/gram. COD is approx. 1600 mg O<sub>2</sub>/g.

### 13. Disposal Considerations

Discarded material is not considered a hazardous waste under California regulations (Title 22, CAC). also, Unionchem is unaware of any local, state, or federal regulations which define this product or its ingredients as hazardous. Dispose of in accordance with local, state, or federal regulations. Dry or wet solid material can be landfilled in accordance with local, state, and federal regulations. Liquids may be sewerred in accordance with local, state, and federal regulations if care id taken to avoid pluggage or blockage of sewer systems recognizing that these materials are intended to increase viscosity and form gels. As a carbohydrate, this material should be readily biodegradable, when at low concentrations, in a biological wastewater treatment plant.

### 14. Transport Information

UN proper shipping name: Not regulated

UN Lable: None

UN Identitication number: None

Hazardous Ingredients: None

Placard: None

Reportable quantity: None



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The product is not hazardous under the applicable DOT, OCAO/IATA, or IMDG regulations.

### 15. Regulatory Information

TSCA Listed: Yes

SARA Title III Section 302 No

SARA Title III Section 311/312 No

SARA Title III Section 313 No

The ingredients of this product are on the TSCA Chemical Substances Inventory, the Canadian Domestic Substances List, and are included in the European Inventory of Existing Commercial Chemical Substances (EINECS).

Sara Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): fire

Section 302 Extremely Hazardous Substances: not applicable

Section 313 Toxic Chemical(s): not applicable

Cercla Reportable Quantity: not applicable