



Certificate of Analysis

Product: XANTHAN GUM
Batch Number: 2022007B-G01
Best Before End: SEPTEMBER 2024

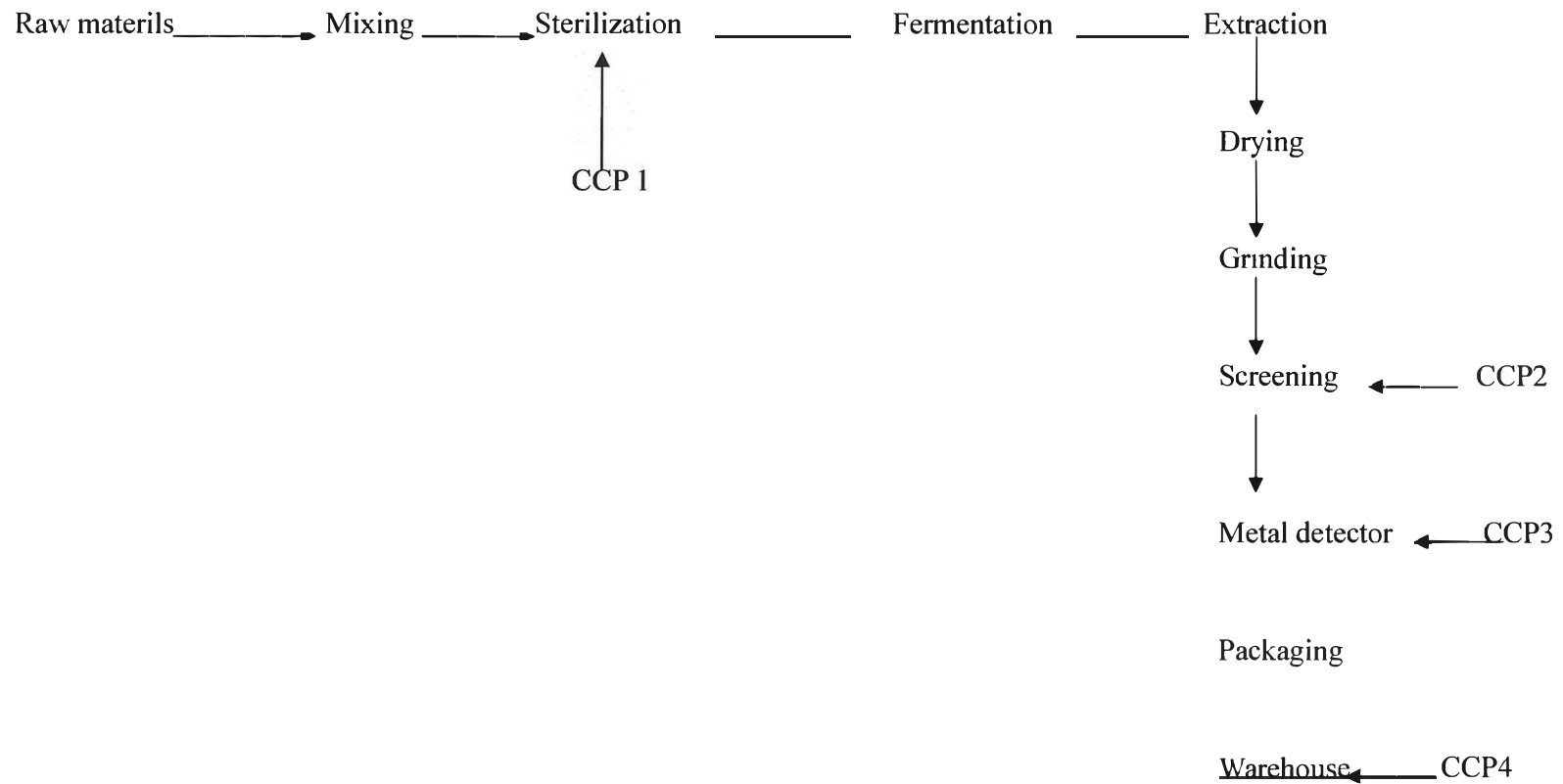
Parameters	Specs	Results
Appearance	White-Like or Light-Yellow Powder	Conform
Particle Size (mesh)	200 MESH	Conform
Viscosity (1% KCL, cps)	1200-1700	1618
Shear ratio	≥6.5	7.90
V1/V2	1.02~1.45	Conform
PH (1% solution)	6.0-8.0	7.03
Loss on Drying (%)	≤15	9.34
Ashes (%)	≤16	8.60
Pb (ppm)	≤2	Conform
Total Nitrogen(%)	≤1.5	Conform
Pyruvic Acid(%)	≥1.5	Conform
Total Plate Count(CFU/g)	≤2000	100
Moulds/Yeasts(CFU/g)	≤100	<100
Coliform (MPN/g)	≤0.3	Conform
Salmonella	Absent	Conform
Ethanol (mg/kg)	≤500	379

ALLERGENS - INFORMATION TABLE

Product (s):Xanthan Gum	Added component		Possible presence (as carry-over and /or accidental)	
	YES	NO	YES	NO
Allergens				
Cereals containing gluten and derivatives		X		X
Crustaceans and crustacean-based products		X		X
Eggs and egg-based products		X		X
Fish and fish-based products		X		X
Peanuts and peanut-based products		X		X
Soybeans and soy-based products		X		X
Milk and milk derivatives (including lactose)		X		X
Nuts (*) and nut-based products		X		X
Celery and celery-based products		X		X
Mustard and mustard-based products		X		X
Sesame seeds and sesame-based products		X		X
Sulphur dioxide and sulphites (SO ₂ >10 mg./kg.)		X		X
Lupine and lupine-based products		X		X
Molluscs and products thereof		X		X
Shellfish and shellfish-based products		X		X
(*) Nuts, Almonds, Hazelnuts, Pistachios, etc.		X		X

**PROCESS FLOW CHART
XANTHAN GUM**

Date:2016-01-01



PRODUCT STATEMENTS

We herewith confirm that the Xanthan Gum which we supply to you, and that the raw materials and all other ingredients used for the production of Xanthan Gum are not produced by means of genetic engineering and no genetically modified materials are used in process. Following procedure are on site to guarantee our products GMO-Free and conform with EU 1829/2003 and 1830/2003.

1. Raw material control:

Xanthan Gum raw materials that are set forth below are only used to produce Xanthan Gum in our company. Raw material suppliers are pre-qualified to be capable of supplying GMO-Free, safe and qualified raw materials. We solely use their GMO-Free raw materials from named suppliers as following:

2. PCR tests & batch traceability system:

PCR tests is applied for release of raw material to guarantee GMO-Free. Furthermore, we established completed batch trace final product to raw material batch as support to identify every batch of our products are GMO-Free.

3. Good manufacturing Practice monitor our processing to assure no Genetic Modified contamination.

In brief, no raw material/adjuvant (e.g. maize, soybean products) that are genetic modified are existed/included in the manufacturing of our Xanthan Gum.

Furthermore, no contamination of genetic materials or methods in the processing, storage and transportation of our Xanthan Gum.

MATERIAL SAFETY DATA SHEET

1.0 Chemical Product and Company Identification

Product name: XANTHAN GUM

INCI: XANTHAN GUM

Family: Polysaccharide gum

Date issued: Jan 1st, 2022

2.0 Composition/Information on Ingredients

COMPONENT CAS NO: Xanthan Gum

3.0 Hazards Identification

Emergency Overview:

Appearance and Odor: white to cream colored 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. The dry powder may cause foreign body irritation in some individuals.

SKIN CONTACT: No more than slightly toxic or 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 based on 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:

4.0 First aid Measures:

IF IN EYES OR 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.

5.0 Fire Fighting Measures:

FLASH POINT: Not applicable

HAZARDOUS PRODUCTS OF COMBUSTION: carbon dioxide, carbon monoxide

EXTINGUISHING MEDIA: In case of fire, use water, dry chemical, CO₂, or alcohol foam

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 de-contaminated after use.

6.0 Accidental Release Measure:

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. We spills should be thoroughly flushed with water until non-slippery.

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

7.0 Handing 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.

8.0 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: OSHA and ACGIHM have not established specific exposure 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 PER ACGIH TLV

15 mg/m³(total dust)8-hr TWA 10mg/m³(inhalable)8-hr TWA

5mg/m³(respiralbe)8-hr TWA 3mg/m³(respirable)8-hr TWA

9.0 Physical and Chemical Properties

Molecular Weight: approximately 1,000,000

Appearance: Creamy white powder

Odour: slight

PH: approximately neutral (as a 1% solution)

Bulk Density: approximately 50lb/cu.ft.

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

NOTE: These physical data are typical values based on material tested but many 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.

10.0 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

11.0 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.

12.0 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 appearance below.

48hr.LC50;Daphnia magna: 980mg/L;practically nontoxic

96hr LC50;mysid shrimp, using 2lb./bbl.xanthan gum in a standard drilling mud:

>500,000ppm 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 >1.0mg/L	Toxic
LC50 or EC50 >10mg/L	Harmful
LC50 or EC50 >100mg/L	Practically Nontoxic

BOD5 is approximately 200mg O2/gram.COD is approximately 1600mg O2/g.

13.0 Disposal Considerations

Dispose of in accordance with local, state and federal regulations. Dry or wet solid material can be landfilled in accordance with local, state and federal regulations. Liquids may be sewered in accordance with local, state and federal regulations if care is 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.

14.0 Transport Information

This product is not hazardous under the applicable DOT,ICAO/IATA, or IMDG regulations

Pls apply the appropriate regulations to properly classify your shipment for transportation.

15.0 Regulatory Information

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):not applicable

Section 302 Extremely Hazardous Substances: not applicable

Section 313 Toxic Chemical(s): not applicable

CERCLA REPORTABLE QUANTITY: not applicable

16.0 Other Information

Health Fire Reactivity

NFPA Rating: 0 1 0

HMIS Rating: 0 1 0

Description:

Our Xanthan Gum, a high-molecular hydrophilic colloid, provides excellent thickening and stabilizing in systems based on its unique pseudo-plastic rheological behavior. It is produced by fermentation of corn starch with *xanthomonas campestris*.

Items	Specifications	Test Method
Appearance	White-like or light yellow free flowing powder	DFFXC001
	Not less than 98% through Not less than 92% through	DFFXC004
Viscosity 1% gum in 1% KCl (60rpm)	1200-1700cps	DFFXC011
Shearing Ratio	≥6.5	DFFXC016
V1/V2	1.02-1.45	DFFXC013
PH Value (1% solution)	6.0-8.0	DFFXC006
Loss on Drying	≤15%	DFFXC003
Ashes	≤16%	DFFXC027
Ethanol & propane-2-ol	≤500ppm	—
Total Nitrogen	≤1.5%	DFFXC009
Pyruvic Acid	≥1.5%	DFFXC008
Lead	≤2ppm	DFFXC029
Total Plate Count	≤5000 cfu/g	DFFXC031
Moulds & Yeasts	≤300 cfu/g	DFFXC032
Salmonella	Negative in 10g	DFFXC034
E. coli	Negative in 5g	DFFXC033
Xanthomonas campestris	Absent in 1g	—

Shelf life: 24 months in dry and airtight conditions.

