

XANTHAN GUM

Does not apply to xanthan gum blended with other components

www.cpkelco.com Page 1 of 14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

	lable of Contents	
1.	Supplier Information	3
2.	Manufacturing Site	3
3.	Manufacturing Site Contacts/Emergency Contacts	3
4.	Facility Registration - Bioterriorism Act	3
5.	Product Description	3
6.	Product Composition	3
7.	Product Source	3
8.	Production Process	3
9.	Quality Systems (HACCP/HARPC, ISO)	5
10.	current Good Manufacturing Practices (cGMP)	5
11.	General Standard Packaging/Shipping Information	5
12.	Transportation Information and Storage Conditions	
13.	Product Labels	8
14.	Lot Numbering System	
15.	Country of Origin (COO) / Harmonized Tariff System (HTS)	8
16.	Chemical/Physical/Microbiological Analysis	8
17.	Heavy Metal Analysis	8
18.	Certificate of Analysis (COA)	8
19.	Shelf Life	10
20.	Safety Data Sheet (SDS)	
21.	Regulatory and Compendial Information/Legal Requirements	
22.	Global/International Inventories	10
23.	Proposition 65	
24.	EU Regulations on Hazardous Substances	10
25.	Genetically Modified Organisms (GMO)	
26.	Transmissible Spongiform Encephalopathies (TSE)/ Bovine Spongiform Encephalopathy (BSE)	10
27.	Nutritional Information	
28.	Suitability for Specific Diets (Vegetarian, Vegan, Muslim, Jewish)	11
29.	Kosher Status/ Halal Status	11
30.	Allergen	11
31.	Cosmetic Status	13
32.	Organic Status	13
33.	Natural Status	13
34.	Animal Testing	
35.	Residual Solvents/ Organic Volatile Impurities (OVI)	14
36.	Irradiation	14
37.	Pesticide Residue Analysis	
38.	Aflatoxin Screening	14
39.	FDA Continuing Guarantee	14
40.	REACH Status	14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

1. Supplier Information

Name: CP Kelco U.S., Inc. Address: Cumberland Center II

3100 Cumberland Boulevard, Suite 600

Atlanta, GA 30339 USA

 Main Phone:
 1-800-535-2687

 Main Fax:
 1-678-247-2752

 Parent Company:
 J.M. Huber Inc

E-mail: Customer.request@cpkelco.com

2. Manufa							
	Okmulgee Plant	San Diego Plant	Wulian Plant	PacMoore*			
Address:	1200 West 20th Street	2025 E. Harbor Dr.	140 Yanhe Rd,	1844 Summer Street			
	Okmulgee, OK	San Diego, CA	Wulian County 262300,	Hammond, IND			
	74447 USA	92113 USA	Shandong, P.R. China	46320 USA			
Main	+1 (918) 758 2600	+1 (800) 535 2687	+011 (86) 63 3531 2999	+1 (866) 610-2666			
Phone:							
Main Fax:	+1 (918) 756 2926	+1 (619) 652 5352	+011 (86) 63 3532 2199	+1 (219) 932-0879			
Products	All Grades	All Grades except	Food, Industrial, and	Food, Personal Care			
		Excipients	Oilfield				
* Product is no	t manufactured at PacMoore;	product is packaged into fina	al product packaging.				

3. Manufacturing Site Contacts/Emergency Contacts

Refer to Plant Information Sheet for the site.

4. Facility Registration - Bioterriorism Act

Refer to Plant Information Sheet for the site.

5. Product Description

Chemical Name: Xanthan Gum
CAS Number: 11138-66-2
EINECS Number: 234-394-2
Appearance Powder
Color White to tan
Odor No off odor
Taste Bland

6. Product Composition

Xanthan gum

This information is not applicable to products containing xanthan gum blended with other components.

7. Product Source

Xanthan gum is a polysaccharide produced by fermentation of a pure culture Xanthomonas campestris.

8. Production Process

The production of xanthan gum involves a multi-step inoculum preparation, followed by fermentation in large stainless steel tanks and, finally, product recovery (see process flow, below). Fermentation equipment is sterilized before use, and strict aseptic techniques are followed to ensure a pure culture. Media composition, as well as fundamental requirements such as aeration, agitation, pH, and temperature, are precisely controlled to guarantee optimal results and reproducibility. After fermentation is complete, the organisms are killed before the product is recovered. Typically, xanthan gum is recovered from the fermentation broth by alcohol precipitation. The alcohol is then removed, and the resulting product dried, milled, tested, and packaged.

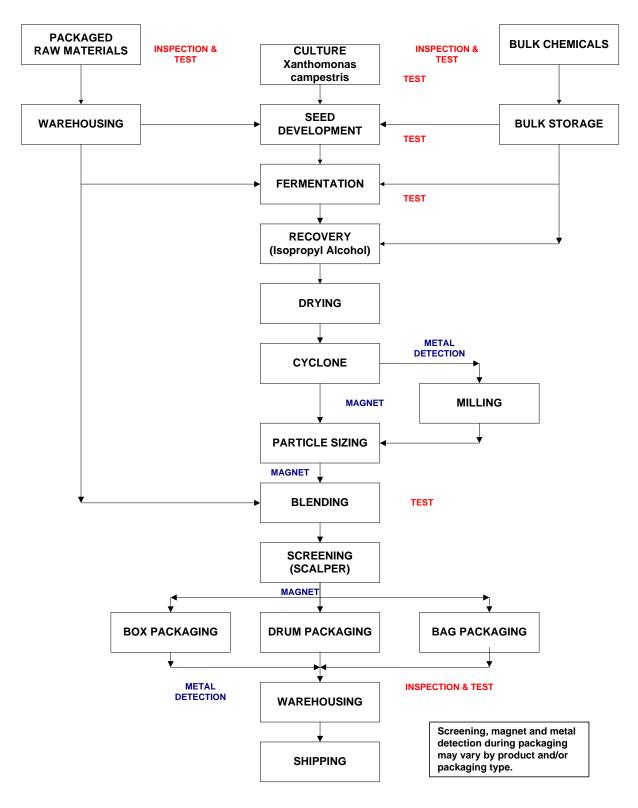
www.cpkelco.com Page 3 of 14

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XANTHAN GUM

Document No.: PRD-01
Effective Date: 25 Jan 2017

XANTHAN GUM PROCESS FLOW



www.cpkelco.com Page 4 of 14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

9. Quality Systems (HACCP/HARPC, ISO)

CP Kelco products are produced at production facilities with quality systems which are certified to the ISO 9001 quality standards and Global Food Safety Initiative (GSFI) standards. HACCP/HARPC plans are in place at xanthan gum production facilities. Facilities are audited by an approved certification body.

10. current Good Manufacturing Practices (cGMP)

Food-grade xanthan gum products, and xanthan gum products for cosmetic and personal care applications, are manufactured and sold by CP Kelco USA, Inc., and are produced in compliance with the current Good Manufacturing Practice in Manufacturing, Packing or Holding Human Food as defined in the United States Code of Federal Regulations, Title 21, Part 110. Excipient-grade xanthan gum products are manufactured under cGMPs, as defined in USP <1078> "Good Manufacturing Practices Guidelines for Bulk Pharmaceutical Excipients.

11. General Standard Packaging/Shipping Information

Product packed in a standard 25-kg boxes

Primary Packaging

Description 2.0 mil clear polyethylene liners (21 CFR §177.1520) FDA approved

Dimensions: 19.25" x 33" Weight: N/A

Closing System: Heat sealed

Secondary Packaging

Description: Double walled corrugated boxes

Dimensions: 11.75" (W) x 15.5" (L) x 14.5" (H)

Weight: 1.4 kg (3.0 lb) tare

25 kg (55.1 lb) net 26.4 kg (58.1 lb) gross

Closing System: Tamper evident tape

Tertiary Packaging

Description: Four way entry pallets that meet

ISPM No. 15 standards

Dimensions: 40.0" (W) x 48.0" (L) x 4.0" (H)

Weight: 25 kg (55.1 lb)

Unitized Packaging:

Description: 30 units per pallet (3 layers of 10)

Bottom and top cardboard tray with protective corner boards on top

Dimensions: 40.0" (W) x 48.0" (L) x 48.0" (H)

Weight: 750 kg (1650 lb) net

816 kg (1799 lb) gross

Closing System: Stretch wrapped with polyethylene

<u>Labeling</u>

Unit: Company Name, Address, Product Name, Lot Number, CAS, Regulatory Information

Country of Origin

Shipping Capacity

20' Cargo box container: 10 pallets 40' Cargo box container: 20 pallets

All packaging material complies with relevant UK, EU and US food contact legislation.

For information only, i.e. not packaging specifications

www.cpkelco.com Page 5 of 14

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XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

Product packed in a standard 25-kg Leverpak drums (or their equivalent) with polyethylene liners (21 CFR § 177.1520)

Primary Packaging

Description 0.003 mil clear polyethylene liners (21 CFR §177.1520) FDA approved

Dimensions: 28" x 49"
Weight: N/A
Closing System: Tied

Secondary Packaging

Description: Type: Leverpak drums (or equivalent) with lid and ring lock

Lid: Hot dipped galvanized metal, pre-coat varnished metal, or polypropylene.

Dimensions: 16.375" (D) x 24.25" (H)
Weight: 3.6 kg (7.9 lb) tare
25 kg (55.1 lb) net

28.6 kg (63.0 lb) gross

Size: 19 Gallons

Closing System: Tamper evident tape

Tertiary Packaging

Description: Four way entry pallets that meet ISPM No. 15 standards

Dimensions: 40.0" (W) x 48.0" (L) x 4.0" (H)

Weight: 25 kg (55.1 lb)

Unitized Packaging:

Description: 16 units per pallet (2 layers of 8) Dimensions: 40.0" (W) x 48.0" (L) x 52.5" (H)

Weight: 400 kg (882 lb) net

482 kg (1063 lb) gross

Closing System: Stretch wrapped with polyethylene

Shipping Capacity

20' Cargo box container:10 pallets40' Cargo box container:20 pallets

Shipping Documents: Bill of Lading, Certificate of Analysis (COA)

First In First Out (FIFO): Company policy is to practice FIFO and we cannot guarantee less than three lots per shipment.

All packaging material complies with relevant UK, EU and US Food contact legislation

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www.cpkelco.com Page 6 of 14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

Product packed in a standard 25-kg multiwalled, valve-filled bags

Primary Packaging

Description 4 ply multi-walled White or Kraft paper bag (21 CFR §177.1520) FDA approved

Dimensions: 20" (W) x 23.5" (L) x 6.25" (H)

Weight: 0.25 kg (.55 lb) tare

25 kg (55.1 lb) net 25.25 kg (55.7 lb) gross

Closing System: Valve filled, heat sealed (tamper evident), folded and tucked

Multi-wall properties:* Wall 1: 49 lb TK (Tea Kraft)

Wall 2: .05 mil HDPE (High Density Polyethylene - Film)

Wall 3: 49 lb TK (Tea Kraft) Wall 4: 58 lb TK (Tea Kraft)

*From inside out

Secondary Packaging

Description: Four way entry pallets that meet ISPM No. 15 standards

Dimensions: 40.0" (W) x 48.0" (L) x 4.0" (H)

Weight: 25 kg (55.1 lb)

Unitized Packaging:

Description: 40 units per pallet (8 layers of 5)

Bottom and top cardboard tray

Dimensions: 40.0" (W) x 48.0" (L) x 54.0" (H)

Weight: 1000 kg (2205 lb) net

1035 kg (2282 lb) gross

Closing System: Stretch wrapped with polyethylene

Labeling

Unit: Company Name, Address, Product Name, Lot Number, CAS, Regulatory Information

Country of Origin

Shipping Capacity

20' Cargo box container: 10 pallets 40' Cargo box container: 20 pallets

Shipping Documents: Bill of Lading, Certificate of Analysis (COA)

First In First Out (FIFO): Company policy is to practice FIFO and we cannot guarantee less than three lots per shipment

All packaging material complies with relevant UK, EU and US food contact legislation

For information only; these are not specifications

www.cpkelco.com Page 7 of 14



Document No.:

PRD-01

Effective Date:

25 Jan 2017

XANTHAN GUM

12. Transportation Information and Storage Conditions

<u>Transportation</u>: Product is not regulated by the US DOT, IATA, IMDG or ADR. For more information see Safety Data Sheet (Section 14)

Storage Conditions: See Product Data Sheet

For Food Grade materials, CP Kelco products cannot be commingled with any poisonous classifications either in warehouses, terminals or transit.

13. Product Labels

Labels on each unit contain the Company Name, Address, Product Name, Lot Number (Batch Number), CAS, Regulatory Information, and Country of Origin. Refer to Product Data Sheet for additional information.

14. Lot Numbering System

The lot number is seven digits in length. The first digit is the year, the second digit is the month, the next four digits are sequential number, and the last digit is the plant.

Example Lot Number: 4E0231K where 4=year, E=month (A=Jan, B=Feb, etc.), 0321 = sequential number, K=Manufacturing site (e.g, A=San Diego, K=Okmulgee, W=Wulian, H=PacMoore)

6	E	0	3	2	1	K
---	---	---	---	---	---	---

Packaged in May of 2016 at Okmulgee plant, 321st lot packed.

15. Country of Origin (COO) / Harmonized Tariff System (HTS)

Country of Origin statements and Harmonized Tariff System (HTS) are available upon request by material number.

16. Chemical/Physical/Microbiological Analysis

See Product Data Sheet for each product.

17. Heavy Metal Analysis

Refer to the report for annual skip-lot test results for each site.

18. Certificate of Analysis (COA)

Certificates of Analysis contain test method number, test parameters and results, specifications, units of measure for each parameter, company name, address, product name, lot number (batch number), producing location, production date, shelf life/best before date.

Also for our food-, personal care-, and excipient-grade biogum products (KELTROL®, KELDENT®, and XANTURAL® lines): The COA indicates which characteristics have been tested on the actual lot. Many of the compendia parameters for which we have process capability are tested on a skip-lot basis, or tested only on a representative product, to ensure we are maintaining process capability. Therefore results for these parameters may or may not appear on every COA.

Below is a typical COA for your information.

www.cpkelco.com Page 8 of 14

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XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017



CP Kelco U.S., Inc. Cumberland Center II 3100 Cumberland Boulevard, Suite 600 Atlanta, GA, USA 30339 1-800-535-2687

CERTIFICATE OF ANALYSIS

Ship to: Sold to:(If different from Ship to)		Date: Order Nu Shipped Custome Delivery: Date Shi Bill Of Li Packagin; Pick Qua	From: r Order: pped: ading: g:	July 14, 2016	i	
Product Name: KELTROL® GM Product Description: XANTHAN GUM Material Number: 10040696				Manufacturing Da Shelf Life/Best Bo Lot:		Jan 31, 2016 Jan 29, 2019 6A0576K
Characteristic	Test Re	esult S	Specifica	tion	Test I	Method
Particle Size, % thru 42 mesh (355 µm) Particle Size, % thru 100 mesh (150 µm) Loss on Drying, % Powder Color, % Appearance Viscosity (1% KCl solution),cP pH (1% Solution) pH (0.25% solution, STW) Isopropyl Alcohol (NMT 500 ppm for EC) Bacteria (Viable Mesophilic), cfu/g Yeast, cfu/g Mold, cfu/g Coliform E. coli Salmonella spp. The Company guarantees that, at the time of si conforms to the requirement of the current edit EC Directives. Where a guaranteed parameter	ion of the	the lot of the Food C	For Information Mot more Not more Not more Not more Negative Massent in Absent in foroduct Themical	than 25 than 67 500 mation Only mation Only than 750 than 2000 than 100 than 100 by MPN 25g 25g meets specifica Codex (FCC) a	KTY KTY KTY KTY KTY KTY KTY KTY KTY KTY	in the current
Total Heavy Metals, ppm Lead, ppm Arsenic, ppm Mercury, ppm Cadmium, ppm S. aureus P. aeruginosa	< 20.0 < 2.0 < 3.0 < 1.0 < 1.0 Absent	1	Not more Not more Not more		KTI KTI KTI KTI KTI	M514 M514 M514 M514 M514 M514 M806 M807
Signature: Keith Curtis - Quality Manager	Kuik	Wand	μ,	Material was prod OKMULGEE , OK		NITED STATES

Page 1 of 1

www.cpkelco.com Page 9 of 14



Document No.:

PRD-01

Effective Date:

25 Jan 2017

XANTHAN GUM

19. Shelf Life

Containers should be stored in a roofed, well-ventilated area in the unopened original package. Functional properties of the product are guaranteed to conform to the stated sales specifications as stated in the Product Data Sheet from the date of manufacture for the specified shelf life when stored under these conditions.

20. Safety Data Sheet (SDS)

Available upon request.

21. Regulatory and Compendial Information/Legal Requirements

See Product Data Sheet - Regulatory Information section

22. Global/International Inventories

See Safety Data Sheet (available upon request)

23. Proposition 65

CP Kelco's xanthan gum products sold to you, either within or for sale or distribution within the State of California, are in compliance with California's Proposition 65. No exposure to a listed chemical occurs within the meaning of Prop 65. For Product-specific Prop 65 statement, please refer to the product-specific SDS, Section 15.

24. EU Regulations on Hazardous Substances

CP Kelco xanthan gum products have been reviewed under EC 1272/2008 and are not classified as hazardous.

25. Genetically Modified Organisms (GMO)

[Food-grade xanthan gum products]

CP Kelco's xanthan gum line of products comply with all appropriate U.S. standards and specifications, including the general U.S. regulations governing food ingredients. These products, which are derived from a microbial fermentation process, are not considered "bioengineered foods" as defined by the Food and Drug Administration's proposed rule governing such foods.

CP Kelco's xanthan gum line of products intended for EU comply with the European Council Directive 2001/18/EC concerning the deliberate release of genetically modified organisms and EC Directives 1829/2003 and 1830/2003 concerning traceability of raw materials and labeling, unless otherwise stated on the Product Data Sheet.

CP Kelco's manufacturing facilities employ strict manufacturing standards that comply with all relevant requirements in the United States and the European Union for food products.

[For industrial and oilfield uses]

CP Kelco's xanthan gum is the product of fermentation. Our xanthan gum products comply with the European Council Directive 2001/18/EC concerning the deliberate release of genetically modified organisms. CP Kelco's manufacturing facilities employ strict manufacturing standards that comply with all relevant requirements in the United States and the European Union for industrial and oilfield products.

26. Transmissible Spongiform Encephalopathies (TSE)/ Bovine Spongiform Encephalopathy (BSE)

CP Kelco's xanthan gum products do not contain, nor are they derived from specified risk material as defined in the FDA Interim Final Rule (Prohibiting the Use of Certain Cattle Materials that May Carry the Risk of BSE in Human Foods and Cosmetics. Docket Number 2004N-0081 July 14, 2004) and as defined in Regulation (EC) 999/2001, as amended. CP Kelco's xanthan gum products contain no by-products of animal origin of specified risk material, additives, preservatives, or colors. No products of bovine origin are used in the manufacture of xanthan gum; therefore there is no source for BSE (bovine spongiform encephalopathy) or TSE (transmissible spongiform encephalopathy) materials or to contaminate our xanthan gum products.

www.cpkelco.com Page 10 of 14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

27. Nutritional Information

[For food uses]

Available upon request

28. Suitability for Specific Diets (Vegetarian, Vegan, Muslim, Jewish)

Vegetarian: Suitable

Vegan: Not suitable, unless otherwise specified on the PDS and label Kosher: Suitable (see Kosher status on the PDS for each product) Halal: Suitable (see Halal status on the PDS for each products)

29. Kosher Status/ Halal Status

Food-, cosmetic-, personal care-, and excipient-grade xanthan gum products are certified as Kosher. CP Kelco xanthan gum is a product of fermentation.

Xanthan gum products produced by CP Kelco are certified Halal.

30. Allergen

[For food uses]

CP Kelco Regulatory Affairs has, as part of our ongoing regulatory review of changing requirements in the global marketplace, reviewed the labeling of our food grade products in accordance with:

- The Food Allergen Labeling and Consumer Protection Act (FALCPA), in effect January 1, 2006, require clear labeling of food containing the eight (8) allergen classes: Peanuts, Soybeans, Milk, Eggs, Fish, Crustacea Tree Nuts, and Wheat.
- EU Directive 1169/2011, as amended, requires the labeling of foods containing allergenic substances: Cereals
 containing gluten, Crustaceans, Eggs, Fish, Peanuts, Soybeans, Milk and dairy products (including lactose), Nuts,
 Celery, Mustard, Sesame seeds, Sulphur dioxide and sulphites at concentrations of more that 10 mg/kg or 10
 mg/liter, Lupin, Molluscs.
- The Brazilian National Health Surveillance Agency ANVISA RDC 26/2015, in effect July 2016, requiring mandatory allergenic labeling.

CP Kelco's xanthan gum products do not contain allergens from the above lists. See below for more detailed information.

	Material	The material su	Cross-contact	
Allergenic foods and derivatives	supplied	On the same	In the same	with the material
	contains:	equipment with:	factory with:	supplied
Peanut or its derivatives, e.g., Peanut -				
pieces, protein, oil, butter, flour, and				
mandelona nuts etc. Peanut may also				
be known as ground nut.	No	No	No	No
Crustaceans and products thereof				
(including crab, crayfish, lobster,				
prawn and shrimp)	No	No	No	No
Fish or its derivatives, (fish protein,				
extracts, etc.)	No	No	No	No
Eggs or its derivatives, (frozen yolk,				
egg white powder, egg protein				
isolates, etc.)	No	Yes	Yes	No
Tree Nuts (almonds, Brazil nuts,				
cashews, chestnuts, hazelnuts (filberts),				
macadamia nuts, pecans, pine nuts,				
pistachios and walnuts or their				
derivatives, e.g., nut butters and oils etc.	No	No	No	No
Milk and products thereof (inc. lactose)	No	No	No	No*

www.cpkelco.com Page 11 of 14



XANTHAN GUM

Document No.: PRD-01

Effective Date: 25 Jan 2017

Soybeans and products thereof (leci oil, tofu and protein isolates etc.)	No	Yes	Yes	No
Cereals containing, gluten and	110	100	100	110
products thereof	No	No	No	No
Sulphur dioxide and sulphites	No	Not applicable	Not applicable	Not applicable
Celery and products thereof	No	No	No	No
Sesame seeds and products thereof		No	No	No
Mustard and products thereof	No	No	No	No
Lupin and products thereof	No	No	No	No
Molluscs and products thereof	No	No	No	No
	TIES /OTHER INF	ORMATION FOR LABE	LING PURPOSES	1
Animal and Animal By Products	No	No	No	No
Antioxidants	No	No	No	No
Artificial Colors, Preservatives,				
Flavorings	No	No	No	No
Barley, Rye, Oats, Spelt, Kamut,				
Triticala	No	No	No	No
Bee pollen	No	No	No	No
Caffeine	No	No	No	No
Corn (Maize) or its derivatives	No	Yes	Yes	No
Latex	No	No	No	No
Gluten	No	No	No	No
Hydrolyzed Vegetable or Plant				
Protein (HVP/HPP)	No	No	No	No
MSG	No	Yes*	Yes*	No
Propolis	No	No	No	No
Royal jelly	No	No	No	No
Seeds (Poppy, Sunflower)	No	No	No	No
Spices, Spice extracts, Herbs	No	No	No	No
Wheat or its derivatives, e.g.,				
flour, starches and brans etc.	No	No	No	No
Yeast	No	No	Yes	No

^{*}There are no ingredients with allergenic properties used in the packaging areas. The only use of allergen materials is at an early stage in the manufacturing process and they are not present in the final product. These materials are stored in dedicated storage areas and are not handled in areas where finished products would become exposed to contamination. Additionally, warehouses may hold CP Kelco's Simplesse products, which is milk based. Proper GMPs are followed to prevent cross contamination.

CP Kelco's xanthan gums also have the following allergen information according to the ALBA databank:

Cow's milk protein	-	Chicken	-	Sesame	-
Lactose	-	Fish	-	Sesame oil	-
Chicken's egg	-	Shellfish and crustaceans	-	Glutamate	-
Soy protein	-	Maize	-	Sulfite	-
Soy lecithin	-	Cocoa	-	Lupine	-
Gluten	-	Legumes/pulses	-	Coriander	-
Wheat	-	Nuts	-	Celery	-
Rye	-	Nut oil	-	Carrot	-
Beef	-	Peanuts	-	Mustard	-
Pork	-	Peanut Oil	-		

⁺ present - absent ? unknown

[For cosmetic uses]

CP Kelco's xanthan gums do not contain any fragrance allergens as listed in the EU Cosmetic Directive 2003/15/EC.

www.cpkelco.com Page 12 of 14

©PKelco

Document No.:

XANTHAN GUM

Effective Date: 25 Jan 2017

PRD-01

31. Cosmetic Status

[For cosmetic uses]

CP Kelco's xanthan gum products (CAS No: 11138-66-2):

- Are not prohibited for use in cosmetic products in accordance with Regulation (EC) 1223/2009 and its amendments
 - Are not listed as a prohibited substance in Annex II or a restricted substance in Annex III
 - Are not subject to the allowable colorants, preservatives, or UV filters listings in Annexes IV, V, and VI because they
 do not perform those functions
 - Are not a CMR substance nor do they contain CMR substances as described in Part 3 of Annex VI to Regulation (EC) No 1272/2008, except as allowable per Article 17 of Regulation (EC) 1223/2009.¹
- Do not contain any substances likely to cause allergic reactions as cited in Regulation (EC) 1223/2009
- Listed as Xanthan Gum in INCI (International Nomenclature of Cosmetic Ingredients)
- Complies with US FDA 21 CFR §172.695 and Purity criteria of current EC directives. (EINECS No. 234-394-2)
- Listed in The Japan Comprehensive Licensing Standards Of Cosmetics By Category 1997, xanthan gum; registered as:
 Serial Number: 2590; Ingredient Name: Xanthan Gum; Ingredient Code: 109058; Standard Code: 42 [Standard Code 42 means, ingredients other than those which are listed in JSCI and which the Ministry of Health, Labor and Welfare stipulated as the specifications of cosmetic ingredients, The Japanese Cosmetic Ingredients Codex (JCIC).]

¹Presence of traces of prohibited substances shall be allowed provided that such presence is technically unavoidable in good manufacturing practices and conforms with Article 3. CP Kelco products may contain residual heavy metals, which are an inherent part of the process and complies with the purity criteria of current EC Directives. See Product Data Sheet for more information.

32. Organic Status

Xanthan gum is listed as an allowable ingredient, per the following:

- United State's guidelines established by the National Organic Standards Board¹.
- European Communities of Council Regulation (EC) 834/2007 and Commission Regulation (EC) 889/2008^{2,3}.
- Agriculture and Agri-Foods Canada by the guidelines established by Canada General Standards Board CAN/CGSB 32.311-2006, Section 6.4.14.
- Internationally by the guidelines established by the Codex Alimentarius Commission⁵.

Products manufactured in a manner consistent with the provisions of the above referenced citations and the intended end-use can be produced using the ingredient **xanthan gum**⁶ without excluding the organic claim on the label per the organic laws of the US, EU, and Canada.

- It is not required to certify xanthan gum as organic per the US, EU, and Canada organic laws.
- Xanthan gum food additive is defined in US 21 CFR & the EU directives.
- CPK manufactures xanthan gum to the compendia and regulatory requirements of the market (US, EU & Canada) and the end use (food).

No ionizing radiation or sewage sludge is used in the production of this product. The product does not require any GMO label⁷ in the EU, US or Canada.

- ¹ Xanthan gum [7 CFR 205.605(b), per 7 CFR 205.105 (c)(e)(f)(g)]
- ² Repealing Regulation (EEC) No 2092/91
- ³ Xanthan gum (E 415)
- ⁴ Water extracts, for fat products, fruit and vegetables, cakes and biscuits, and salads. Note: Comments are in process to CGSB to correct "water extracts". Xanthan gum is a product of fermentation and is "de-watered," not water extracted
- ⁵ Xanthan gum in Fat products, fruit and vegetables, cakes & biscuits, salads (INS 415)
- ⁶ Does not apply to Keltrol 630 series or xanthan gum blends
- ⁷ Refer to Product Data Sheet, Regulatory and labeling sections and GMO status letter.

33. Natural Status

[For food uses]

US FDA and EU do not have a regulatory definition of "natural" that applies to regulated food additive products. Canada has labeling guidelines on "natural" foods. We leave to the customer's judgment and legal counsel, the decision regarding the

www.cpkelco.com Page 13 of 14



Document No.:

PRD-01

Effective Date:

25 Jan 2017

XANTHAN GUM

use of the term "natural" in customer-specific advertising or labeling for those products.

¹ Canadian 2003 Guide to Food Labeling and Advertising – Chapter 4, Section 4.7

[For cosmetic uses]

A definition for the term "natural" in cosmetics has not been established in the US or EU regulations, standards, or guidelines. Since there is no regulatory definition of "natural" that applies to FDA or EU regulated cosmetic ingredients, we leave it to the customer's judgment andlegal counsel, the decision regarding the use of the term "natural" and in the customer's advertising or labeling for those products.

34. Animal Testing

CP Kelco does not conduct testing for any other purposes than worker, environment or consumer safety. CP Kelco Regulatory Affairs, in accordance with guidance from the US FDA, OSHA, EU, and other international regulatory agencies, may be required to perform tests to assess the safety and regulatory compliance of our products. These tests are performed in accordance with US and international test standards. If animal testing is required, it is conducted in accordance with these test standards. An OECD approved alternative to animal testing will be evaluated.

In accordance with and pursuant to Article 11, 2. (e) of Regulation (EC) 1223/2009 on cosmetic products, the most recent safety study using **xanthan gum test articles** analogous to the CP Kelco **xanthan gum** commercial product was conducted prior to 1980.

Please note that this information does not apply to all products. Please see Animal Testing Policy Letter, available upon request

35. Residual Solvents/ Organic Volatile Impurities (OVI)

With the exception of IPA (2-propanol, iso-propanol, isopropyl alcohol) organic volatile chemicals (solvents) are not used in our manufacture, handling or storage of xanthan gum.

Subsequently CP Kelco does not test for the presence of other solvents. The NF monograph for xanthan gum lists an isopropyl alcohol requirement of not more than 750 mg/kg (ppm). This solvent is listed under Class 3 in the ICH guidelines and the current USP/NF Residual Solvents Section <467>. CP Kelco uses isopropyl alcohol (2-propanol, IPA) in the manufacture of xanthan gum that it tested to comply with the purity criteria of the NF. No other Class 3 solvent and no solvents from Class 1, Class 2, or "other" solvents from Table 4 are used in the production of these xanthan gum products.

36. Irradiation

CP Kelco xanthan gum products do not undergo irradiation unless otherwise stated on the product data sheet and labeled.

37. Pesticide Residue Analysis

Pesticide use in CPKelco manufacturing plants is restricted to the external grounds. Pesticides are not stored on site and are applied by external certified pest control providers. For additional confirmation, CPKelco performs a Multi-Residue Analysis (Organohalides, Organonitrogen, Organophosphates and N-methyl Carbamates) on an annual basis. Results are included in the report for annual skip-lot testing results.

38. Aflatoxin Screening

Aflatoxin screening (B1, B2, G1 and G2) is conducted on an annual basis. Results are included in the report for annual skiplot testing results.

39. FDA Continuing Guarantee

[For food, pharmaceutical, and cosmetic uses]

Available upon request

40. REACH Status

Available upon request

www.cpkelco.com Page 14 of 14