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SECTION			

SECTION 1. IDENTIFICATION

Product name	:	Xanthan Gum
Substance name	:	Xanthan Gum
Trade name	:	Xanthan Gum FED / FEDCS / FEDCS-PC / FF / FFCS / FFCSK / FFCS-OC / FFCS-PC / FFCSP-PC / FFCS-ST / FFDF / FFJ / FF-OC / FF-PC / FFST / FG / FGDF / FN / FNAF-CS / FNCS / FNCS-LD / FNCS-LDK / FNCS-OC / FNCS-PC / FNCSP / FNCSP-PC / FNDF / FNHV / FNLD / FN-OC / FNP / FN-PC / FNP-OC / FNPP / FNS / FNST / TF / TFAF-CS / TFCS / TFST / TG / TGCS / TGO / TN / TNAS / TNAS-CS / TNCS / TNCSP / TNO / TNP / TNPP / TNST
CAS-No.	:	11138-66-2
Chemical nature	:	Solid

Manufacturer or supplier's details Details of the supplier of the safety data sheet

Company	:	Jungbunzlauer Inc. 95 Wells Avenue, Suite 150 Newton, Massachusetts 02459 USA www.jungbunzlauer.com
Telephone	:	+1 617 969-0900
Telefax	:	+1 617 964-2921
E-mail address	:	msds@jungbunzlauer.com
Responsible/issuing person		

Emergency telephone number

National Chemical Emergency Centre (NCEC) +1 202 464 2554

Recommended use of the chemical and restrictions on use

Recommended use	:	Food/ feedstuff additives Cosmetic additive Medical aids Industrial use
Restrictions on use	:	None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

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GHS	label elements			
Signa	l word	:	Warning	
Hazar	d statements	:	May form comb	oustible dust concentrations in air.
	rds Not Otherwise Cla known.	ssifi	ed	
SECTION	3. COMPOSITION/INF	ORN	IATION ON ING	REDIENTS
Subst	ance / Mixture	:	Pure substance	9
Chem	ical nature	:	Solid	
Subst	ance name	:	Xanthan Gum	
CAS-I	No.	:	11138-66-2	
Conor	ral advice		Do not loove th	a victim upottandad
Gener	al advice	:	Do not leave th	e victim unattended.
Gener If inha		:		e victim unattended. place in recovery position and seek medical
			lf unconscious, advice.	
lf inha			lf unconscious, advice. If symptoms pe	place in recovery position and seek medical rsist, call a physician.
lf inha In cas	led	:	If unconscious, advice. If symptoms pe Wash off with v Remove contac Protect unharm	place in recovery position and seek medical rsist, call a physician. varm water. et lenses.
lf inha In cas In cas	iled se of skin contact	:	If unconscious, advice. If symptoms per Wash off with v Remove contact Protect unharm If eye irritation p Keep respirator Do not give mil Never give any	place in recovery position and seek medical rsist, call a physician. varm water. et lenses. ed eye. persists, consult a specialist.
If inha In cas In cas If swa	iled se of skin contact se of eye contact llowed important symptoms ffects, both acute and	:	If unconscious, advice. If symptoms per Wash off with v Remove contact Protect unharm If eye irritation p Keep respirator Do not give mil Never give any	place in recovery position and seek medical rsist, call a physician. varm water. et lenses. ed eye. persists, consult a specialist. y tract clear. k or alcoholic beverages. thing by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray
		Dry powder
		Carbon dioxide (CO2)
		Foam

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Unsu med	uitable extinguishing ia	:	High volume wate	r jet
Haza prod	ardous combustion ucts	:	Carbon monoxide hydrocarbons (srr	, carbon dioxide and unburned noke).
Furth	ner information	:	Use extinguishing	re for chemical fires. measures that are appropriate to local d the surrounding environment.
	cial protective equipment refighters	:	Wear self-containe necessary.	ed breathing apparatus for firefighting if

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid dust formation.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Avoid creating dust.
		For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Conditions for safe storage	:	Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	Keep in a dry place. No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Provide adequate ventilation.

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Personal protective equipment

· · · · · · · · · · · · · · · · · · ·		
Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Remarks	:	Wear suitable gloves.
Eye protection	:	Safety glasses
Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colour	:	powder off-white, beige
Coloui	·	on-writte, beige
Odour	:	characteristic
Odour Threshold	:	not determined
рН	:	5.5 - 8.5
Melting point/range	:	Decomposes without melting.
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Flash point Flammability (solid, gas)		Not applicable does not ignite
	:	does not ignite
Flammability (solid, gas) Upper explosion limit / Upper	:	does not ignite No data available

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Relative	e vapour density	:	Not applicable	
Relative	e density	:	No data available	
Density	/	:	No data available	
Solubil Wa	ity(ies) ter solubility	:	completely solubl	e
Soli	ubility in other solvents	:	insoluble, dispers Solvent: Alcohol	ible
Partitio octano	n coefficient: n- I/water	:	No data available	
Auto-ig	nition temperature	:	Not applicable	
Decom	position temperature	:	No data available	
Viscos Visc	ity cosity, kinematic	:	Not applicable	
Explos	ive properties	:	Not explosive	
Oxidizi	ng properties	:	No oxidising effect	et.
Dust ex	xplosion class	:	St1	
Particle	e size	:	0.02 - 1.2 mm	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned. Dust may form explosive mixture in air.
Conditions to avoid	:	No data available
Incompatible materials	:	Not applicable
Hazardous decomposition products	:	Build-up of dangerous/toxic fumes possible in cases of fire/high temperature. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

	rmation.	
available info : LD	rmation.	
: LD		
: LD		
	50 Oral (Bat): 45 000 mg/kg	
	50 Oral (Bat): 45 000 mg/kg	
	50 Orol (Bat): 15 000 mg/kg	
LD	50 Oral (Rat): 45,000 mg/kg	
	50 Oral (Mouse): 20,000 mg/kg	
Ex	at): 21 mg/l posure time: 1 h sessment: The substance or mixture has no acute	
	alation toxicity	
be	marks: An LC50/inhalation/4h/rat could not be determined cause no mortality of rats was observed at the maximum hievable concentration.	
: Re	marks: No skin irritation	
1		
available info	rmation.	
: Ra	t	
	0 h	
: NO	skin irritation	
	bbit	
	0 h skin irritation	
/e irritation		
available info	rmation.	
<u>Components:</u>		
	eye irritation	
	As inh Re bea acl : Re available info : Ra : 360 : Ra : 120 : No ve irritation available info	

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

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<u>Com</u>	<u>oonents:</u>					
Xantl Speci Resul		: Guinea pig : Did not cause s	ensitisation on laboratory animals.			
Germ cell mutagenicity Not classified based on available information.						
Xantl Germ	Components: Xanthan Gum: Germ cell mutagenicity - : Animal testing did not show any mutagenic effects. Assessment					
	nogenicity lassified based on avai	lable information.				
<u>Com</u>	<u>Components:</u>					
Xanthan Gum:Carcinogenicity -: Not classifiable as a human carcinogen.Assessment						
IARC			sent at levels greater than or equal to 0.1% is confirmed human carcinogen by IARC.			
OSH		ent of this product pres list of regulated carcin	sent at levels greater than or equal to 0.1% is ogens.			
NTP		ent of this product pres a known or anticipate	sent at levels greater than or equal to 0.1% is d carcinogen by NTP.			
Not c	Reproductive toxicity Not classified based on available information.					
<u>Com</u>	<u>oonents:</u>					
Repro	n an Gum: ductive toxicity - ssment	: No data availab	e			
	- single exposure lassified based on avai	lable information.				
<u>Com</u>	<u>oonents:</u>					

Xanthan Gum:

Remarks : No data available

STOT - repeated exposure

Not classified based on available information.

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Components:					
Xanthan Gum: Remarks	: No data available				
Repeated dose toxicity					
<u>Components:</u>					
Xanthan Gum:					
Species	: Rat : <1000 mg/kg				
Application Route	: Oral				
Exposure time Remarks	24 hNo adverse effect has been observed in chronic toxicity tests.				
Repeated dose toxicity - Assessment	: No adverse effect has been observed in chronic toxicity tests.				
Aspiration toxicity Not classified based on ava	ailable information.				
Experience with human exposure					
Product:					
Inhalation	: Target Organs: Respiratory system Symptoms: No information available.				
Skin contact	: Target Organs: Skin Symptoms: No information available.				
Eye contact	: Target Organs: Eyes Symptoms: No information available.				
Ingestion	: Target Organs: Digestive organs Symptoms: No information available.				
Further information					
Product:					
Remarks	: No data available				
ECTION 12. ECOLOGICAL II	NFORMATION				
Ecotoxicity					
Components:					
Xanthan Gum:					
Toxicity to fish	: (Oncorhynchus mykiss (rainbow trout)): 420 mg/l Exposure time: 96 h				
	Remarks: No adverse effect has been observed in acute				

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			toxicity tests.	
	y to daphnia and other c invertebrates	:	Remarks: No data	a available
Toxicit plants	y to algae/aquatic	:	Remarks: No data	a available
Toxicit	y to microorganisms	:	Remarks: No data	a available
Persis	tence and degradabil	lity		
Comp	onents:			
Xantha	an Gum:			
Biodeg	<i>jradability</i>	:	Exposure time: 28	3 d est Guideline 301F
	emical Oxygen nd (BOD)	:	Biochemical oxyg 200 mg/g	en demand within 5 days
Stabilit	ty in water	:	Remarks: Not app	licable
Bioaco	cumulative potential			
Comp	onents:			
	an Gum: cumulation	:		duct is miscible in water and readily both water and soil. Accumulation is not
Mobili	ty in soil			
Comp	onents:			
Distrib	an Gum: ution among imental compartments	:	Remarks: No data	a available
Stabilit	ty in soil	:	Remarks: Readily	biodegradable.
Other	adverse effects			
Produ	<u>ct:</u>			
Ozone	-Depletion Potential	:	Protection of Stra Substances Remarks: This pro manufactured with	R Protection of Environment; Part 82 tospheric Ozone - CAA Section 602 Class I oduct neither contains, nor was n a Class I or Class II ODS as defined by the t Section 602 (40 CFR 82, Subpt. A, App.A +

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	Additional ecological information		: No data available		
SECTION	13. DISPOSAL CONS	IDERATIONS			
Dispo	sal methods				
Waste	e from residues		e with local and national regulations. ble recycling is preferred to disposal or		
Conta	minated packaging		iners should be taken to an approved waste for recycling or disposal.		

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

DOT

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Xanthan Gum

Not Assigned

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The components of this product are reported in the following inventories:

TSCA	:	All substances listed as active on the TSCA inventory
AIIC	:	On the inventory, or in compliance with the inventory
DSL	:	All components of this product are on the Canadian DSL
ENCS	:	On the inventory, or in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIOC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

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No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AllC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL -Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS -Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship: RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature: SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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: 11/12/2021

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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