

Revision Date: March 1, 2015

Revision Number: 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product Name: CHEM ZAN D (Biopolymer)

Contact Manufacturer:

ChemSol, LLC

601 Carlson Parkway Suite 400

Minnetonka, MN 55305 USA

Telephone Number: (+1) (952)807-7459

Emergency response telephone number:

Chemtrec 1-800-424-9300 Account # 631622

Use of the Substance / Preparation:

Industrial use; Thickening agent; Rheology control agent

2. HAZARDS IDENTIFICATION

Transport Symbol	WHMIS	NFPA	Personal Protective Equipment
Not controlled	Not controlled		

Emergency Overview

Warning. May form combustible dust concentrations in air (during processing and handling). Product dust may cause mild, mechanical irritation.

Appearance

Cream to Light yellow

Physical State

Solid / Powder or Granules

Odor

Characteristic

Classification according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS):

Hazards Not Otherwise Classified Combustible Dust



OSHA / GHS Label Elements

Signal Word: Warning

Hazard Statement(s): May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation Substance

Chemical Family Polysaccharide gums

Non-hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Xanthan gum	11138-66-2	99-100	None known

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids.

Skin Contact Wash off with warm water and soap.

Inhalation Move to fresh air.

Ingestion Clean mouth with water and afterwards drink plenty of water.

Most important symptoms and affects, both acute and delayed

Eyes Dust may cause mechanical irritation to eyes resulting in redness or watering.

Skin Product dust may cause mild, mechanical irritation.

Inhalation Dust may cause irritation of respiratory tract. See section 8 of this sheet for exposure limits pertaining to nuisance dust or "particulates not otherwise regulated".

Ingestion Not for human consumption. Ingestion may cause irritation to mucous membranes. Product may expand upon contact with moisture.

Main Symptoms Itching. Shortness of breath.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Fine dust dispersed in air may ignite. Risk of ignition followed by flame propagation or secondary explosions should be prevented by avoiding accumulation of dust, e.g. on floors and ledges. As with most organic solids, combustion is possible at elevated temperatures or by contact with an ignition source.

Extinguishing media

Suitable Extinguishing Media Water. Carbon dioxide (CO₂). Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Special hazards arising from the substance or mixture

Hazardous Combustion Products Carbon monoxide (CO), Carbon dioxide (CO₂).

Specific Hazards Arising from the Chemical None known.

Chemical

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge Yes. (as dust).

Further information Dust explosibility class = 1 [Kst (bar-m/sec) = 92]. Weak to moderately explosible.

Advice for fire-fighters

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 0

Flammability 1

Stability and Reactivity 0

Physical hazard None known



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid dust formation. Use personal protective equipment. For personal protection see section 8.

Environmental Precautions

Prevent further leakage or spillage if safe to do so.

Methods for Clean-up

Clean up promptly by sweeping or vacuum.

7. HANDLING AND STORAGE

Handling

Ensure adequate ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Refer to NFPA 61, "Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities".

Storage

Keep in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

This product is not known to contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. As an airborne dust, exposure limits pertaining to "particulates not otherwise regulated" have been provided below.

Chemical Name	ACGIH TLV	OSHA PEL	MEXICO	NIOSH
Particulates not otherwise regulated	TWA: 10 mg/m ³ inhalable particles, recommended TWA: 3 mg/m ³ respirable particles, recommended	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	not listed	not listed

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. However it is the duty of the user to verify this and follow given exposure limits at the workplace.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Personal Protective Equipment

Eye/face Protection.

If exposed to airborne dust, appropriate safety glasses with side-shields or safety goggles are recommended. If airborne dust concentrations are excessive, wear goggles.

Skin and Body Protection

Protective clothing and gloves may be worn to reduce the potential of mechanical irritation.

Respiratory Protection

If exposed to airborne dust, use appropriate NIOSH approved (or equivalent) respiratory protection.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Cream to Light yellow

Physical State

Solid / Powder or Granules

Odor

Characteristic

Odor Threshold

No information available

pH

Neutral

Flash Point

Not applicable

Autoignition Temperature

390 °C / 734 °F

Boiling point

Not applicable

Melting/Freezing Point

No information available

Decomposition temperature

No information available

Oxidizing Properties

No information available

Water Solubility

Soluble

Evaporation Rate

Not applicable

Vapor Pressure

Not applicable

Vapor Density

Not applicable

Partition Coefficient (n-octanol/water)

No information available

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Possibility of Hazardous Reactions Hazardous polymerization does not occur.

Conditions to Avoid Avoid dust formation. Heat, flames and sparks.

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products Thermal decomposition may lead to release of, Carbon monoxide (CO), Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	Based on available data, no evidence of acute toxicity.
Skin corrosion/irritation	Based on available data, not, or only slightly irritating.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

Potential health effects

Eyes	Dust may cause mechanical irritation to eyes resulting in redness or watering.
Skin	Product dust may cause mild, mechanical irritation.
Inhalation	Dust may cause irritation of respiratory tract. See section 8 of this sheet for exposure limits pertaining to nuisance dust or "particulates not otherwise regulated".
Ingestion	Not for human consumption. Ingestion may cause irritation to mucous membranes. Product may expand upon contact with moisture.
Main Symptoms	Itching. Shortness of breath.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment. Contains no substances known to be not degradable in waste water treatment plants.

Persistence/Degradability	Expected to be biodegradable.
Mobility	Soluble in water.

13. DISPOSAL CONSIDERATIONS

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

Waste Disposal Methods	Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.
Contaminated Packaging	Empty containers should be decontaminated and taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Domestic transport regulations (USA)

DOT Not regulated

Domestic transport regulations (Canada)

TDG Not regulated

Domestic transport regulations (Mexico)

MEX Not regulated

International transport regulations

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

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

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	AICS	ENCS ISHL	CHINA	PICCS	KECL	NZIoC
Xanthan gum	Yes	Yes	No	Yes 234-394-2	No	Yes	Yes (8)-535	Yes	Yes	Yes KE-35422	Yes

USA**Federal Regulations****Ozone Depleting Substances:**

No Class I or Class II material is known to be used in the manufacture of, or contained in, this product.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372.

CERCLA/SARA 103-302

Sections 103-302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 103-302.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 63)

This product is not known to contain any HAPS.

State Regulations**California Proposition 65**

This product is not known to contain chemicals listed under Proposition 65.

State Right-to-Know

No known components subject to "Right-To-Know" legislation in the following States: Massachusetts. Minnesota. New Jersey. Pennsylvania. Rhode Island.

Canada**WHMIS Product Classification**

Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL

No known component is listed on the WHMIS ingredients disclosure list.

(NPRI) Canadian National Pollutant Release Inventory

No known component is listed on NPRI.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Mexico

Mexico - Grade

Slight risk, Grade 1

16. OTHER INFORMATION

Prepared By: ADM Bio-Products
Original Preparation Date: 20-Sep-2011
Revision Date: 14-Nov-2013
Revision Number: 2
Reason for revision: New SDS format. This version replaces all previous versions.

Abbreviations and acronyms

ACGIH TLV - American Conference of Governmental Industrial Hygienists Threshold Limit Values
AICS - Australian Inventory of Chemical Substances (Australia)
CAS - Chemical Abstract Service
CHINA - Chinese Inventory of Existing Chemical Substances (China)
DOT - U.S. Department of Transportation
DSL - Domestic Substance List (Canada)
EINECS - European Inventory of Existing Commercial Chemical Substances (EU)
ELINCS - European List of Notified Chemical Substances (EU)
ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan)
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IATA - International Air Transport Association Dangerous Goods Regulations
ICAO - International Civil Aviation Organisation
ICL - In Commerce List (Canada)
IMDG - International Maritime Dangerous Goods Code
IMO - International Maritime Organization
KECL - Korean Existing and Evaluated Chemical Substances (Korea)
MEX - NOM-002-SCT/2003 List of Hazardous Substances and Materials Most Commonly Transported
NDSL - Non Domestic Substances List (Canada)
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NZIoC - New Zealand Inventory of Chemicals (New Zealand)
OSHA - Occupational Safety & Health Administration
OSHA PEL - Occupational Safety and Health Administration Permissible Exposure Limits
PICCS - Inventory of Chemicals and Chemical Substances (Philippines)
STOT - Specific Target Organ Toxicity
TDG - Transportation of Dangerous Goods (Transport Canada)
TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA)
TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours)
WHMIS - Workplace Hazardous Materials Information System

The information provided on this (M)SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of sheet