

KELZAN® XCD POLYMER

SECTION 1. IDENTIFICATION

Product Identifier	KELZAN® XCD POLYMER
Other Means of Identification	Xanthan Gum
Product Family	Viscosifier
Recommended Use	Drilling Fluid Additive.
Supplier	Bri-Chem Supply Ltd., Bay 4, 5510 - 3rd Street SE, Calgary, Alberta, T2H 1J9, Bri-Chem Supply, 403-252-5904, www.brichemsupply.com
Emergency Phone No.	ChemTrec, (800) 424-9300, 24/7

SECTION 2. HAZARDS IDENTIFICATION

GHS Label Elements

Inhalation of the dust may cause respiratory tract irritation.
Excessive inhalation of the dust may cause coughing and sneezing.

Other Hazards

Product is EXTREMELY slippery when wet.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Xanthan gum	11138-66-2	98.0-100	
Glyoxal solutions	107-22-2	<1	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water while holding the eyelid(s) open for several minutes. If eye irritation persists, seek medical attention.

Ingestion

No adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

First-aid Comments

Remove material from eyes, skin and clothing. In case of doubt or when symptoms persist, seek medical attention.
Wash heavily-contaminated clothing before re-use.

Most Important Symptoms and Effects, Acute and Delayed

If on skin:

May cause mild irritation.

Product Identifier: KELZAN® XCD POLYMER

Date of Preparation: February 04, 2016

Page 1 of 05

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water, dry chemical, carbon dioxide.

Specific Hazards Arising from the Chemical

Product will burn when in contact with a flame. Treat as a Class "A" fire. Self-extinguishes when ignition source is removed. Tends to smoulder.

Can contain sufficient fines to cause a combustible dust explosion. Do not breathe smoke, gases or vapours generated.

Will liberate carbon dioxide, carbon monoxide.

Special Protective Equipment and Precautions for Fire-fighters

Firefighters should wear a full-body encapsulating chemical protective suit with positive-pressure self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Wet material on walking surfaces will be EXTREMELY slippery. Avoid dust generation. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Use vacuum equipment designated for combustible dust. Take precautionary measures against static discharge. The use of water wash down is not recommended unless the spilled material is already wet.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Prevent dust accumulation on ALL surfaces including ceiling rafters and other hidden surfaces.

DO NOT breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Avoid conditions that generate airborne dust in handling, transfer and clean up.

Product may form combustible dust-air mixtures.

Avoid emptying package in or near flammable vapours.

Keep away from heat, flame, sparks and other ignition sources.

Static charges may cause flash fire.

Remove material from eyes, skin and clothing.

Conditions for Safe Storage

Store in a dry place away from strong oxidizing agents.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(Xanthan gum)

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

15 mg/m³ (8 hr TWA)

5 mg/m³ (8 hr TWA).

Appropriate Engineering Controls

Ventilation: provide natural or mechanical ventilation to control exposure levels below airborne exposure limits in this section. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Individual Protection Measures

Eye/Face Protection

This product does not cause significant eye irritation or eye toxicity requiring special protection. Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin Protection

Product Identifier: KELZAN® XCD POLYMER

Date of Preparation: February 04, 2016

Page 2 of 05

Minimize skin contamination by following good industrial practice. Protective gloves are recommended.

Respiratory Protection

Avoid breathing dust. Use NIOSH/MSHA-approved respiratory protection equipment when airborne exposures exceed established guidelines.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	White - tan powder. Particle Size: Not available
Odour	Odourless
Odour Threshold	Not available
pH	7.0 (1% solution)
Melting Point/Freezing Point	Not applicable (melting); Not available (freezing)
Initial Boiling Point/Range	Not available Flash
Point	Not applicable
Evaporation Rate	Not applicable
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.5 at 25 °C (77 °F)
Solubility	Soluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)
Other Information	
Physical State	Solid
Molecular Formula	Not available
Molecular Weight	Not available
Bulk Density	Not available
Surface Tension	Not applicable
Critical Temperature	Not applicable
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid dust formation.

Incompatible Materials

Avoid strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide and carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

The dry powder may cause foreign body irritation in some individuals.

Product Identifier: KELZAN® XCD POLYMER

Date of Preparation: February 04, 2016

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, a paste or gel can be formed in the airway.

Acute Toxicity

Glyoxal:

LC50 Inhalation Rat: 1300-2400 mg/m³ (4 hr)

Xanthan Gum:

LD50 Oral Rat: >5000 mg/kg

Glyoxal:

LD50 Oral Rat (acute): >640-8979 mg/kg

LD50 Dermal Rat: >2000mg/kg LD50

Dermal Rabbit: 12700 mg/kg LD50

Dermal Guinea Pig: >5000 mg/kg

Skin Corrosion/Irritation

May cause mild irritation. Prolonged contact with the dry powder may cause drying or chapping.
Non-irritating to the skin (rabbit). No skin allergy observed in guinea pig following repeated skin exposure.

Serious Eye Damage/Irritation

Dry powder may cause foreign body irritation in some individuals.
Non-irritating to the eye (rabbit).

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Hygroscopic properties of the gum can form a paste or gel in the airway. Inhalation of the dust may cause respiratory tract irritation. Excessive inhalation of the dust may cause coughing and sneezing.

Ingestion

Non-toxic if swallowed (less than a mouthful) based on available information.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Xanthan Gum: No adverse effects observed in long-term feeding studies with rats (up to 1000 mg/kg per day).

Respiratory and/or Skin Sensitization

Glyoxal: May cause sensitization of susceptible persons.

Reproductive Toxicity

Sexual Function and Fertility

No adverse effects were observed in 3-generation reproduction study with rats (up to 500 mg/kg per day).

SECTION 12. ECOLOGICAL INFORMATION

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

Toxicity

Xanthan Gum:

LC50 96-hr:

Rainbow trout: 490 mg/L

Mysid shrimp: >50,000 mg/L suspended particulate phase using 5.7 kg/m³ xanthan gum in a standard drilling fluid.

EC50 48-hr:

Daphnia magna: 980 mg/L

Persistence and Degradability

This product is biodegradable.

Bioaccumulative Potential

This product is inherently biodegradable.

Mobility in Soil

This is inert material.

Other Adverse Effects

Xanthan Gum:

BOD: ~ 200 mg O₂/gram

Product Identifier: KELZAN® XCD POLYMER

Date of Preparation: February 04, 2016

Page 4 of 05

COD: ~ 1600 mgO2/gram

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of according to Federal, Provincial or Municipal guidelines or laws.
Liquids may be sewered in accordance with local, provincial and national 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.
Dry or wet solid material can be landfilled in accordance with local, provincial and national regulations.
As a carbohydrate, this material is readily biodegradable, when in low concentrations, in a biological wastewater treatment plant.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations.

Special Precautions for User Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS Classification

Not a WHMIS controlled product.

Additional Canadian Regulatory Lists

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

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 1** **Instability - 0**

SDS Prepared By Bri-Chem Supply Ltd

Phone No. (403) 252-5904

Date of Preparation February 04, 2016

Disclaimer This Health and Safety information is correct to the best of our knowledge and belief at the date of its publication, but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as guidance for safe handling, storage, and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

Product Identifier: KELZAN® XCD POLYMER

Date of Preparation: February 04, 2016

Page 5 of 05