

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Trade name** Xanthan Gum**Synonyms** Polysaccharide**Company Name:** Valence Drilling Fluids, LLC
Address: Edmond, OK 730313
2575 Kelley Pointe Parkway Suite 120
Phone: (405) 285-6454**Emergency Phone Numbers:** **CONTACT** Chemtrec, 1-800-424-9300**2. HAZARD IDENTIFICATION****HAZARD SYMBOL:****SIGNAL WORD:**
Warning!**HAZARD STATEMENT(S):**
May form combustible dust concentrations in air.**PRECAUTIONARY STATEMENT(S):**

Prevention:

P201 – Obtain special instructions before use

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P308 + P313 – If exposed or concerned: Get medical advice/attention.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 – If skin irritation occurs: Get medical advice/attention.

P363 – Wash contaminated clothing before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several Minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 – If eye irritation persists: Get medical advice/attention.

Storage:

P403 + P235: Store in a well-ventilated place. Keep cool.

P404 – Store in a closed container

P405 – Store locked up.

Disposal:

P501 – Dispose of contents/container in accordance with local/regional/national regulations.

HAZARDS NOT OTHER CLASSIFIED: None known.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	Percent	GHS Classification –
Xanthan Gum	11138-66-2	60 – 100%	Expl. Dust (Combustible Dust)

The exact percentage (concentration) of the composition has been withheld as proprietary

4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

Inhalation:

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes:

Flush eyes with water for at least 15 minutes, holding eyelids open. Remove Any contact lenses. If irritation persists, seek medical attention.

Skin:

Wash with soap and water. Get medical attention if irritation persists. Ingestion:
Under normal conditions, first aid procedures are not required.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: No significant hazards expected

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY: Note to physician:

Treat symptomatically

5. FIRE-FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA:

Suitable extinguishing media:

Water, fog, carbon dioxide, foam, dry chemical.

Unsuitable extinguishing media:

None known.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL OR MIXTURE:

Decomposition in fire may produce toxic gases. Organic dust in the presence of an ignition source can be explosive in high concentrations. Good housekeeping practices are required to minimize this potential.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel

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6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Personal precautions:

Avoid contact with skin, eyes and clothing. Ventilate area. Avoid creating and breathing dust.

Protective equipment:

Wear appropriate personal protective equipment.

Environmental precautions:

Prevent from entering sewers, waterways or low areas.

METHODS FOR MATERIAL CONTAINMENT AND CLEANING UP:

Collect using dustless method and hold for appropriate disposal. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage and disposal. In the event of spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Wear personal protective equipment. Avoid contact with eyes, skin or clothing. Wash hands after use. Do not eat, drink or smoke in work area. Wash contaminated clothing before reuse. Wear a NIOSH-approved, European Standard En 149, or equivalent when using this product. Material slippery when wet. Avoid creating or inhaling dust.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in a cool dry place. Keep away from oxidizers. Protect from physical damage

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

Substances	CAS Number	OSHA PEL-TWA	ACGIH-TLV-TWA
Xanthan Gum	11138-66-2	15 mg/m ³	10 mg/m ³

APPROPRIATE ENGINEERING CONTROLS: Use in a well ventilated area. Use approved industrial ventilation and local exhaust. As required to maintain exposures below applicable exposure limits.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

Eye protection:

Wear safety glasses with side shields or splash proof goggles.

Skin protection:

Wear normal work gloves.

Respiratory protection:

Wear NIOSH-approved, European Standard EN 149 (FFP2/FFP3), AS/NZS 1715, or equivalent respirator when using this product.

Clothing protection:

Wear normal materials handling clothing.

Other protection:

Handle only in a well ventilated area.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	
Physical state:	Powder
Color:	Off-white to tan
ODOR:	Slight
ODOR THRESHOLD:	No data available
pH:	7 (1%)
MELTING POINT/FREEZING POINT:	No information available
INITIAL BOILING POINT/RANGE:	No data available
FLASH POINT:	No data available
EVAPORATION RATE:	No data available
FLAMMABILITY (SOLID, GAS):	No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	
Upper flammability limit:	No data available
Lower flammability limit:	No data available
VAPOR PRESSURE:	No data available
VAPOR DENSITY:	No data available
RELATIVE DENSITY(Specific Gravity):	1.6
SOLUBILITY(IES):	
Solubility in water:	Soluble in water
Solubility in other solvents:	No data available
PARTITION COEFFICIENT: N-OCTANOL/WATER:	No data available
AUTO-IGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	No data available
VISCOSITY:	No data available
EXPLOSIVE PROPERTIES:	No data available
OXIDIZING PROPERTIES:	No data available
OTHER INFORMATION (VOC Content %):	No data available
OTHER INFORMATION (Molecular Weight):	1,000,000
OTHER INFORMATION (Bulk Density)	42.5 lbs/ft ³

10. STABILITY AND REACTIVITY

REACTIVITY:
Not reactive under normal conditions

CHEMICAL STABILITY:
Stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTION:
Hazardous polymerization will not occur

CONDITIONS TO AVOID:
Avoid creation of dust when handling and avoid all possible sources of ignition(spark or flame. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

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10. STABILITY AND REACTIVITY (CONTINUED)

INCOMPATIBLE MATERIALS:

Avoid strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

Principle route of exposure:

Eye, skin contact, inhalation

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

Acute Toxicity:

Inhalation:

May impede respiration

Eye Contact:

May cause mild irritation to the eye.

Skin Contact:

None known.

Ingestion:

None known.

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS

Chronic Effects/Carcinogenicity:

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Ecotoxicity for the component:

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Xanthan Gum	11138-66-2	>45,000 mg/kg (Rat)	No data available	>21 mg/L (Rat) 1h >4.25 mg/L (Rat) 4h

Substances	CAS Number	Skin corrosion/irritation
Xanthan Gum	11138-66-2	Non-irritating to the skin in rabbits

Substances	CAS Number	Eye damage/irritation
Xanthan Gum	11138-66-2	Mechanical irritation of the eyes is possible.

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12. ECOLOGICAL INFORMATION (CONTINUED)

Substances	CAS Number	Skin Sensitization
Xanthan Gum	11138-66-2	No information available.

Substances	CAS Number	Respiratory Sensitization
Xanthan Gum	11138-66-2	No sensitization responses were observed

Substances	CAS Number	Mutagenic Effects
Xanthan Gum	11138-66-2	No information available

Substances	CAS Number	Carcinogenic Effects
Xanthan Gum	11138-66-2	Did not show carcinogenic effects in animal experiments

Xanthan Gum	11138-66-2	Animal testing did not show any effects on fertility
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Substances	CAS Number	STOT - single exposure
Xanthan Gum	11138-66-2	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Xanthan Gum	11138-66-2	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Xanthan Gum	11138-66-2	Not applicalbe

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Xanthan Gum	11138-66-2	No information available	TLM96 320-560 ppm (Oncorhynchus mykiss) LC50 (96h) 490 mg/L (Oncorhynchus mykiss)	No information available	TLM96 >75,000 ppm (Mysidopsis bahia) LC50 (48h) 980 mg/L (Daphnia magna)

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12. ECOLOGICAL INFORMATION (CONTINUED)

PERSISTENCE AND DEGRADABILITY:

No information available

BIOACCUMULATIVE POTENTIAL:

No information available

MOBILITY IN SOIL:

No information available

OTHER ADVERSE EFFECTS:

Not information available

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:

Disposal method:

Bury in a licensed landfill according to federal, state and local regulations. Follow all applicable national and local regulations.

14. TRANSPORTATION INFORMATION

US D.O.T Non-bulk (packages less than 119 gallons):

UN Number:	Not restricted
UN Proper shipping name:	Not restricted
Transport Hazard Class:	Not applicable
Packing group:	Not applicable
Environmental Hazards:	Not applicable

US D.O.T. Bulk:	Not applicable
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IMDG/IMO:

UN Number:	Not restricted
UN Proper shipping name:	Not restricted
Transport Hazard Class:	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable

IATA/CAO:

UN Number:	Not restricted
UN Proper shipping name:	Not restricted
Transport Hazard Class:	Not restricted
Packing group:	Not applicable
Environmental hazards:	Not applicable

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15. REGULATORY INFORMATION

US REGULATIONS:

US TSCA Inventory:

All components listed on inventory or are exempt.

EPA SARA Title III Extremely hazardous substances:

Not applicable.

EPA SARA (311, 312) Hazard Class:

None

EPA SARA (313) Chemicals:

This product does not contain a toxic chemical for routine annual

"Toxic Chemical Release Reporting" under Section 313 (10 CFR 372)

EPA CERCLA/Superfund Reportable Spill Quantity:

Not applicable.

EPA RCRA Hazardous waste classification:

If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

California Proposition 65:

All components listed do not apply to the California Proposition 65 Regulation.

MA Right-to-know law:

Does not apply.

NJ Right-to-know law:

Does not apply.

PA Right-to-know law:

Does not apply.

CANADIAN REGULATIONS:

All components listed on inventory or are exempt

NFPA	HEALTH:	1
RATING:	FLAMMABILITY:	0
	REACTIVITY:	0
	SPECIAL:	0

HMIS	HEALTH:	1
RATING	FLAMMABILITY:	0
	REACTIVITY:	0
	SPECIAL:	0

Hazard scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

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16. OTHER INFORMATION (CONTINUED)

Employee training:

Employees should be made aware of all hazards of this material, as stated in this SDS, before handling it.

KEY OR LEGEND TO ABBREVIATIONS AND ACRONYMS:

ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road

AS/NZS 1715 - New Zealand Standard on Selection, use and maintenance of respiratory protective equipment

bw – body weight

CAS – Chemical Abstracts Service

C - Celsius

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures d - day

EC – European Commission

EC10 – Effective Concentration 10%

EC50 – Effective Concentration 50%

EEC – European Economic Community

EN 374 - European standard on Protective gloves against chemicals and micro-organisms

EN 149 - European standard on filtering halfmasks to protect against particles

ErC50 – Effective Concentration growth rate 50% FFP - Filtering Facepieces

h - hour

IATA/ICAO - International Air Transport Association / International Civil Aviation Organization

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG/IMO - International Maritime Dangerous Goods / International Maritime Organization

LC50 – Lethal Concentration 50% LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0% LL50 – Lethal Loading 50%

MAK - Maximum Workplace Concentration

MARPOL – International Convention for the Prevention of Pollution from Ships mg/kg – milligram/kilogram

mg/L – milligram/liter

mg/m³ - milligram/cubic meter mm - millimeter

mmHg - millimeter mercury

NDS - OEL-TWA [Poland najwyższe dopuszczalne stężenie na stanowisku pracy] NDS - najwyższe dopuszczalne stężenie na stanowisku pracy

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category PEL – Permissible Exposure Limit ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorization and Restriction of Chemicals

RID - The European Agreement concerning the International Carriage of Dangerous Goods by Rail

R/H-phrases - Risk/Hazard-phrases STEL – Short Term Exposure Limit SU – Sector of Use category

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16. OTHER INFORMATION (CONTINUED)

SZW - Netherlands Ministry of Social Affairs and Employment

TWA – Time-Weighted Average

UN – United Nations

UK - United Kingdom

VLA-EC - short-time excursion limits [Spain valores límite ambientales para la exposición de corta duración]

VLA-ED - time-weighted average values for a whole work shift [Spain valores límite ambientales para la exposición diaria]

VOC – Volatile Organic Carbon

vPvB – very Persistent and very Bioaccumulative w/w - weight/weight

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