HALLIBURTON

SAFETY DATA SHEET

Product Trade Name: NO-SAG®

Revision Date: 24-Jul-2018 Revision Number: 16

1. Identification

1.1. Product Identifier

Product Trade Name: NO-SAG® Synonyms None

Chemical Family: Carbohydrate Internal ID Code HM003705

1.2 Recommended use and restrictions on use

Application: Viscosifier

Uses advised against No information available

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier

Baroid Fluid Services

Product Service Line of Halliburton Energy Services, Inc.

P.O. Box 1675 Houston, TX 77251

Telephone: (281) 871-4000

Halliburton Energy Services, Inc. 645 - 7th Ave SW Suite 1800

Calgary, AB T2P 4G8 Canada

Telephone: 1-403-231-9300

Prepared By Chemical Stewardship

Telephone: 1-281-871-6107

e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number:

Emergency Telephone Number 1-866-519-4752 or 1-760-476-3962

Global Incident Response Access Code: 334305

Contract Number: 14012

2. Hazards Identification

2.1 Classification in accordance with paragraph (d) of §1910.1200

Combustible dust Combustible dust

2.2. Label Elements

Hazard Pictograms

Signal Word: Warning

Hazard Statements

May form combustible dust concentrations in air.

Precautionary Statements

Prevention None
Response None
Storage None
Disposal None

2.3 Hazards not otherwise classified

None known

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Xanthan gum	11138-66-2	60 - 100%	Combustible Dust

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

4. First Aid Measures

4.1. 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 In case of contact, immediately flush eyes with plenty of water for at least 15

minutes and get medical attention if irritation persists.

Skin Wash with soap and water. Get medical attention if irritation persists.

Ingestion Under normal conditions, first aid procedures are not required.

4.2 Most important symptoms/effects, acute and delayed

No significant hazards expected.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2 Specific hazards arising from the substance or mixture

Special exposure hazards in a fire

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

5.3 Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid creating and breathing dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Scoop up and remove.

7. Handling and storage

7.1. Precautions for safe handling

Handling Precautions

Avoid creating or inhaling dust. Avoid contact with eyes, skin, or clothing. Ensure adequate ventilation. Slippery when wet. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Store away from oxidizers. Store in a cool, dry location.

8. Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Xanthan gum	11138-66-2	Not applicable	Not applicable

8.2 Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

8.3 Individual protection measures, such as personal protective equipment

Personal Protective Equipment If engineering controls and work practices cannot prevent excessive exposures,

the selection and proper use of personal protective equipment should be

determined by an industrial hygienist or other qualified professional based on the

specific application of this product.

Respiratory ProtectionNot normally needed. But if significant exposures are possible then the following

respirator is recommended:

Dust/mist respirator. (N95, P2/P3)

Hand Protection Normal work gloves.

Skin Protection Normal work coveralls.

Eye Protection Wear safety glasses or goggles to protect against exposure.

Other Precautions None known.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Solid Color White to yellow

Odor: Slight Odor No information available

Threshold:

Property Values

Remarks/ - Method

pH: 7

Freezing Point / Range No data available **Melting Point / Range** No data available **Boiling Point / Range** No data available Flash Point No data available No data available Flammability (solid, gas) **Upper flammability limit** No data available Lower flammability limit No data available No data available **Evaporation rate** No data available **Vapor Pressure Vapor Density** No data available

Specific Gravity 1.5

Water Solubility
Soluble in water
Solubility in other solvents
No data available
Partition coefficient: n-octanol/water
Autoignition Temperature
Decomposition Temperature
Viscosity
Soluble in water
No data available
No data available
No data available

Explosive Properties

No information available

Oxidizing Properties

No information available

9.2. Other information

Molecular Weight 1000000

VOC Content (%) No data available

10. Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

Will Not Occur

10.4. Conditions to avoid

None anticipated

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

11. Toxicological Information

11.1 Information on likely routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Acute Toxicity

InhalationMay impede respiration.Eye ContactMay cause mild eye irritation.

Skin Contact None known.

Ingestion

None known.

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

11.3 Toxicity data

Toxicology data for the components

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Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Xanthan gum	11138-66-2	> 5000 mg/kg (Rat)	No data available	> 21 mg/L (Rat) 1h	
-		> 45000 mg/kg (Rat)		> 4.25 mg/L (Rat) 4h	
Substances	CAS Number	Skin corrosion/irritation			
Xanthan gum	11138-66-2	Not irritating to skin in rabbits.			
Substances		Serious eye damage/irritation	1		
Xanthan gum	11138-66-2	Non-irritating to rabbit's eye			
Substances	CAS Number	Skin Sensitization			
Xanthan gum		Did not cause sensitization on labo	ratory animals (guinea pig)		
Substances		Respiratory Sensitization			
Xanthan gum	11138-66-2	No sensitization responses were of	oserved		
Substances	CAS Number	Mutagenic Effects			
Xanthan gum	11138-66-2	No information available			
6		- · · - · ·			
Substances		Carcinogenic Effects			
Xanthan gum	11138-66-2	Did not show carcinogenic effects i	n animal experiments		
Substances	CAS Number	Reproductive toxicity			
Xanthan gum	11138-66-2	Animal testing did not show any eff	ects on fertility.		
Substances	CAC Normalis and	lotot : .			
		STOT - single exposure			
Xanthan gum	11138-66-2	No significant toxicity observed in a	inimal studies at concentration re	quiring classification.	
Substances	CAS Number	STOT - repeated exposure			
Xanthan gum	11138-66-2	No significant toxicity observed in a	nimal studies at concentration re	quiring classification.	
Substances	CAS Number	Aspiration hazard			
Xanthan gum	11138-66-2	Not applicable			

12. Ecological Information

12.1. Toxicity

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to	Toxicity to Invertebrates
				Microorganisms	
Xanthan gum	11138-66-2	No information available	TLM96 320-560 ppm	No information available	TLM96 > 75000 ppm
			(Oncorhynchus mykiss)		(Mysidopsis bahia)
			LC50 (96h) 490 mg/L		LC50 (48h) 980 mg/L
			(Oncorhynchus mykiss)		(Daphnia magna)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Xanthan gum	11138-66-2	Biodegradable.

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Xanthan gum	11138-66-2	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Xanthan gum	11138-66-2	No information available

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

Disposal methodsBury in a licensed landfill according to federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

14. Transport Information

US DOT

UN Number
UN proper shipping name:
Transport Hazard Class(es):
Packing Group:
Not applicable
Not applicable
Not applicable
Not applicable

Canadian TDG

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IMDG/IMO

UN Number
UN proper shipping name:
Transport Hazard Class(es):
Packing Group:
Environmental Hazards:

Not restricted
Not applicable
Not applicable

IATA/ICAO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

Special Precautions for User None

15. Regulatory Information

US Regulations

US TSCA Inventory All components listed on inventory or are exempt.

TSCA Significant New Use Rules - S5A2

Substances	CAS Number	TSCA Significant New Use Rules - S5A2
Xanthan gum	11138-66-2	Not applicable

EPA SARA Title III Extremely Hazardous Substances

Substances		EPA SARA Title III Extremely Hazardous Substances
Xanthan gum	11138-66-2	Not applicable

EPA SARA (311,312) Hazard Class

Combustible dust

EPA SARA (313) Chemicals

Substances		Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Xanthan gum	11138-66-2	Not applicable	Not applicable

EPA CERCLA/Superfund Reportable Spill Quantity

Substances	CAS Number	CERCLA RQ
Xanthan gum	11138-66-2	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

Substances	CAS Number	California Proposition 65
Xanthan gum	11138-66-2	Not applicable

U.S. State Right-to-Know Regulations

Substances	CAS Number	MA Right-to-Know Law	NJ Right-to-Know Law	PA Right-to-Know Law
Xanthan gum	11138-66-2	Not applicable	Not applicable	Not applicable

NFPA Ratings: Health 0, Flammability 0, Reactivity 0
HMIS Ratings: Health 0, Flammability 0, Physical Hazard 0

Canadian Regulations

Canadian Domestic Substances All components listed on inventory or are exempt. List (DSL)

16. Other information

Preparation Information

Prepared By Chemical Stewardship

Telephone: 1-281-871-6107

e-mail: fdunexchem@halliburton.com

Revision Date: 24-Jul-2018

Reason for Revision SDS sections updated:

1

Additional information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight

CAS - Chemical Abstracts Service

d - day

EC50 – Effective Concentration 50%

ErC50 – Effective Concentration growth rate 50%

h - hour

LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

LL50 - Lethal Loading 50%

mg/kg - milligram/kilogram

mg/L - milligram/liter

mg/m³ - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OEL – Occupational Exposure Limit

PEL – Permissible Exposure Limit

ppm - parts per million

STEL - Short Term Exposure Limit

TWA - Time-Weighted Average

UN – United Nations w/w - weight/weight

0 0

Key literature references and sources for data

www.ChemADVISOR.com/

Disclaimer Statement

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End of Safety Data Sheet