

## SAFETY DATA SHEET

**Product Trade Name:** BARAZAN® D

**Revision Date:** 25-Feb-2015

**Revision Number:** 20

### 1. Identification

#### 1.1. Product Identifier

**Product Trade Name:** BARAZAN® D  
**Synonyms:** None  
**Chemical Family:** Polysaccharide  
**Internal ID Code** HM003534

#### 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  
P.O. Box 1675  
Houston, TX 77251  
Telephone: (281) 871-4000  
Emergency Telephone: (281) 575-5000

**Prepared By** Chemical Stewardship  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

#### 1.4. Emergency telephone number

**Emergency Telephone Number** (281) 575-5000

### 2. Hazard(s) Identification

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

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

**Contains  
Substances**  
Xanthan gum

**CAS Number**  
11138-66-2

### **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%	Expl. Dust (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**

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.

### **5.3 Special protective equipment and precautions for fire-fighters**

#### **Special Protective Equipment for Fire-Fighters**

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.  
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**

Slippery when wet. Avoid creating or inhaling dust.

**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. Product has a shelf life of 24 months.

**8. Exposure Controls/Personal Protection****8.1 Occupational Exposure Limits**

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Xanthan gum	11138-66-2	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

**8.2 Appropriate engineering controls**

**Engineering Controls** Use in a well ventilated area.

**8.3 Individual protection measures, such as personal protective equipment**

<b>Respiratory Protection</b>	Not normally needed. But if significant exposures are possible then the following respirator is recommended: Dust/mist respirator. (N95, P2/P3)
<b>Hand Protection</b>	Normal work gloves.
<b>Skin Protection</b>	Normal work coveralls.
<b>Eye Protection</b>	Wear safety glasses or goggles to protect against exposure.
<b>Other Precautions</b>	None known.

**9. Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

<b>Physical State:</b> Powder	<b>Color:</b> White to off white
<b>Odor:</b> Slight	<b>Odor Threshold:</b> No information available

Property Remarks/ - Method	Values
<b>pH:</b>	7 (1%)
<b>Freezing Point/Range</b>	No information available.
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	No data available

Flash Point	No data available
Flammability (solid, gas)	No data available
upper flammability limit	No data available
lower flammability limit	No data available
Evaporation rate	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.6
Water Solubility	Soluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	204 °C / 400 °F
Decomposition Temperature	No data available
Viscosity	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
Bulk Density	52.4 lbs/ft3

**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**

Inhalation	May impede respiration.
Eye Contact	May 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

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Xanthan gum	11138-66-2	> 5000 mg/kg (Rat) > 45000 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	Not irritating to skin in rabbits.

Substances	CAS Number	Eye damage/irritation
Xanthan gum	11138-66-2	Non-irritating to rabbit's eye

Substances	CAS Number	Skin Sensitization
Xanthan gum	11138-66-2	Did not cause sensitization on laboratory animals (guinea pig)

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

Substances	CAS Number	Reproductive toxicity
Xanthan gum	11138-66-2	Animal testing did not show any effects on fertility.

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 applicable

## 12. Ecological Information

### 12.1. Toxicity

#### Ecotoxicity Effects

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

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 > 75000 ppm (Mysidopsis bahia) LC50 (48h) 980 mg/L (Daphnia magna)

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Xanthan gum	11138-66-2	No information available

**12.3. Bioaccumulative potential**

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

**12.4. Mobility in soil**

No information available

Substances	Mobility
Xanthan gum	No information available

**12.5 Other adverse effects**

No information available

**13. Disposal Considerations****13.1. Waste treatment methods**

**Disposal Method** Bury 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:** Not restricted  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable  
**Environmental Hazards:** Not applicable

**US DOT Bulk**

**DOT (Bulk)** 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:** Not restricted  
**UN Proper Shipping Name:** Not restricted  
**Transport Hazard Class(es):** Not applicable  
**Packing Group:** Not applicable  
**Environmental Hazards:** 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

<b>US TSCA Inventory</b>	All components listed on inventory or are exempt.
<b>EPA SARA Title III Extremely Hazardous Substances</b>	Not applicable
<b>EPA SARA (311,312) Hazard Class</b>	None
<b>EPA SARA (313) Chemicals</b>	This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).
<b>EPA CERCLA/Superfund Reportable Spill Quantity</b>	Not applicable.
<b>EPA RCRA Hazardous Waste Classification</b>	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
<b>California Proposition 65</b>	All components listed do not apply to the California Proposition 65 Regulation.
<b>MA Right-to-Know Law</b>	Does not apply.
<b>NJ Right-to-Know Law</b>	One or more components listed.
<b>PA Right-to-Know Law</b>	Does not apply.

### Canadian Regulations

<b>Canadian DSL Inventory</b>	All components listed on inventory or are exempt.
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## 16. Other information

### Preparation Information

**Prepared By** Chemical Stewardship  
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**Revision Date:** 25-Feb-2015

**Reason for Revision** Update to Format SECTION: 2

### 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**

bw – body weight  
CAS – Chemical Abstracts Service  
EC50 – Effective Concentration 50%  
ErC50 – Effective Concentration growth rate 50%  
LC50 – Lethal Concentration 50%  
LD50 – Lethal Dose 50%  
LL50 – Lethal Loading 50%  
mg/kg – milligram/kilogram  
mg/L – milligram/liter  
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  
h - hour  
mg/m<sup>3</sup> - milligram/cubic meter  
mm - millimeter  
mmHg - millimeter mercury  
w/w - weight/weight  
d - day

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

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**End of Safety Data Sheet**