

HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: CLWGAU421

Revision Date: 05-Sep-2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: CLWGAU421

Synonyms: None

Chemical Family: Carbohydrate

Application: Gelling Agent

Manufacturer/Supplier Halliburton Energy Services, Inc.

P.O. Box 1431

Duncan, Oklahoma 73536-0431

Emergency Telephone: (281) 575-5000

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
Polysaccharide	Proprietary	60 - 100%	Not applicable	Not applicable

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory irritation. Airborne dust may be explosive.

4. FIRST AID MEASURES

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

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

Eyes In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Ingestion Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	Not Determined
Flash Point/Range (C):	Not Determined
Flash Point Method:	Not Determined
Autoignition Temperature (F):	> 698
Autoignition Temperature (C):	> 370
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined
Fire Extinguishing Media	Water fog, carbon dioxide, foam, dry chemical.
Special Exposure Hazards	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 for Fire-Fighters	Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.
NFPA Ratings:	Health 1, Flammability 1, Reactivity 0
HMIS Ratings:	Health 1, Flammability 1, Physical Hazard 0 , PPE: E

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures	Avoid creating and breathing dust. Slippery when wet.
Environmental Precautionary Measures	None known.
Procedure for Cleaning / Absorption	Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions	Wash hands after use. Launder contaminated clothing before reuse. Avoid contact with eyes, skin, or clothing. Avoid creating or inhaling dust. Avoid dust accumulations. Slippery when wet. Ground and bond containers when transferring from one container to another.
Storage Information	Store in a well ventilated area. Store away from oxidizers. Keep container closed when not in use. Store in a cool, dry location. Keep from heat, sparks, and open flames. Product has a shelf life of 24 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	A well ventilated area to control dust levels. Local exhaust ventilation should be used in areas without good cross ventilation.
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Respiratory Protection	If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.
	Not 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	Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Powder
Color:	White to off white
Odor:	Odorless
pH:	6.5-8 (1%)
Specific Gravity @ 20 C (Water=1):	1.6
Density @ 20 C (lbs./gallon):	Not Determined
Bulk Density @ 20 C (lbs/ft3):	25 - 55
Boiling Point/Range (F):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (F):	Not Determined
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Forms gel
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined

10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	None known.
Incompatibility (Materials to Avoid)	Strong oxidizers.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide.

Additional Guidelines

Not Applicable

11. TOXICOLOGICAL INFORMATION**Principle Route of Exposure** Eye or skin contact, inhalation.**Sympotoms related to exposure****Acute Toxicity**

Inhalation	May cause mild respiratory irritation. In high air concentrations: May impede respiration.
Eye Contact	May cause mild eye irritation.
Skin Contact	May cause an allergic skin reaction. Prolonged or repeated contact may cause skin irritation.
Ingestion	May cause allergic reaction.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are chronic health hazards.**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polysaccharide	Proprietary	27000 mg/kg (Rat)	2 g/kg (Rabbit)	5800 mg/m ³ (Rat) 4 h

12. ECOLOGICAL INFORMATION**Ecotoxicological Information****Ecotoxicity Product**

Acute Fish Toxicity:	Not determined
Acute Crustaceans Toxicity:	Not determined
Acute Algae Toxicity:	Not determined

Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Polysaccharide	Proprietary	No information available	TLM96: 10000 ppm (Oncorhynchus mykiss)	No information available	No information available

12.2 Persistence and degradability

Readily biodegradable

12.3 Bioaccumulative potential

Does not bioaccumulate

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects**13. DISPOSAL CONSIDERATIONS****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**

Land Transportation

DOT

Not restricted

Canadian TDG

Not restricted

ADR

Not restricted

Air Transportation

ICAO/IATA

Not restricted

Sea Transportation

IMDG

Not restricted

Other Transportation Information

Labels: None

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 (40 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

Canadian DSL Inventory All components listed on inventory or are exempt.

WHMIS Hazard Class Un-Controlled

16. OTHER INFORMATION

The following sections have been revised since the last issue of this SDS

Not applicable

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 Compliance at 1-580-251-4335.

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*****END OF MSDS*****