

MATERIAL SAFETY DATA SHEET

Product Trade Name: LGC-VI

Revision Date: 25-Apr-2013

Revision Number: 10

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Trade Name: LGC-VI
Synonyms: None
Chemical Family: Blend
Internal ID Code: HM000996

Product Use

Application: Liquid Gel Concentrate

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services
645 - 7th Ave SW Suite 2200
Calgary, AB
T2P 4G8
Canada
Emergency Telephone Number (281) 575-5000

Prepared By

Chemical Compliance
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2. HAZARD(S) IDENTIFICATION

WHMIS Classification

WHMIS Hazard Class B3 Combustible Liquids
D2B Toxic Materials

WHMIS Symbol(s)



Summary of hazards of the product

Hazard Overview

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed. Potential carcinogen. Combustible.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	HMIRC Registry Number	Filing Date
Diesel	68476-34-6	30 - 60%		
Guar gum derivative	Proprietary	30 - 60%		

4. FIRST AID MEASURES**Description of first aid measures****Inhalation**

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Eyes

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin

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

Ingestion

Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

Most Important symptoms and effects, both acute and delayed

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically

5. FIRE FIGHTING MEASURES**Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance of mixture**Special Exposure Hazards**

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases.

Advice for firefighters**Special Protective Equipment for Fire-Fighters**

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

Hazardous combustion products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions and emergency procedures****Protective Equipment**

Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.

Environmental Precautionary Measures

Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

Conditions for safe storage and Incompatible materials for storage

Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Diesel	68476-34-6	TWA: 100 mg/m ³	Not applicable
Guar gum derivative	Proprietary	Not applicable	Not applicable

Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal Protective Equipment (PPE)**Respiratory Protection**

Organic vapor respirator with a dust/mist filter. (A2P2/P3)

Hand Protection

Impervious rubber gloves.

Skin Protection

Rubber apron.

Eye Protection

Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State: Gel
Odor: Diesel

Color: Light brown
Odor Threshold: No information available.

Property
Remarks/ Method

Values

pH:
pH Concentration of Solution:
Melting Point/Range
Freezing Point/Range (C):
Boiling Point/Range (C):
Flash Point/Range (C):
Flash Point Method:
Autoignition Temperature (C):
Flammability Limits in Air - Lower (%):
Flammability Limits in Air - Upper (%):
Evaporation Rate (Butyl Acetate=1):
Vapor Pressure @ 20 C (mmHg):
Vapor Density (Air=1):
Specific Gravity @ 20 C (Water=1):
Solubility in Water (g/100ml):

No information available.
No information available.
No information available
No information available
No information available.
65°C
TCC
257
0.7
6
No information available.
< 0.2
> 1
1.06
Insoluble

9. PHYSICAL AND CHEMICAL PROPERTIES

Solubility in other solvents	No information available.
Partition Coefficient/n-Octanol/Water:	No information available.
Decomposition Temperature (C):	No information available.
Viscosity	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available

Other information

Molecular Weight (g/mole):	No information available.
VOC Content (%)	No information available

10. STABILITY AND REACTIVITY**Conditions of Reactivity****Conditions to Avoid**

Keep away from heat, sparks and flame.

Hazardous Polymerization:

Will Not Occur

Chemical Stability

Stable

Sensitivity to Static Discharge

Not available

Sensitivity to Mechanical Impact

Not available

Incompatible Materials

Strong oxidizers.

Hazardous Decomposition Products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION**Routes of entry**

Eye or skin contact, inhalation.

Information on Toxicological Effects**Acute effects from exposure****Inhalation**

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause eye irritation.

Skin Contact

May cause skin defatting with prolonged exposure. May cause skin irritation.

Ingestion

Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic effects from exposure

11. TOXICOLOGICAL INFORMATION

Chronic Effects/Carcinogenicity Prolonged or repeated application of a similar product to the skin of laboratory mice without washing between applications resulted in increased incidence of skin tumors. It is suspected that tumors may be due in part to severely irritated conditions from continuous contact with the product. Limited studies on oils that are very active carcinogens have shown washing the animals' skin with soap and water between applications greatly decreases the incidence of tumors. In light of these studies, good personal hygiene is essential with the use of this product.

Irritancy of product
Irritation

Irritating to eyes and skin

Sensitization of product
Sensitization

Not confirmed to cause skin or respiratory sensitization.

Mutagenicity
Mutagenic Effects

Not regarded as mutagenic

Carcinogenicity
Carcinogenic Effects

Contains petroleum distillates which have been shown to cause skin cancer in laboratory animals. Limited studies on oils that are very active carcinogens have shown washing the animals' skin with soap and water between applications greatly decreases the incidence of tumors. In light of these studies, good personal hygiene is essential with the use of this product.

Reproductive Toxicity
Reproductive Toxicity

This product does not contain any known or suspected reproductive hazards

Teratogenicity/embryotoxicity
Teratogenic

Not a confirmed teratogen or embryotoxin.

Toxicologically synergistic material Not available

Acute Toxicity

Substances	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diesel	No data available	No data available	No data available
Guar gum derivative	> 5000 mg/kg	No data available	No data available

12. ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity Effects

Substances	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Diesel	No information available	LC50: 35 mg/l (Pimephales promelas)	No information available	No information available
Guar gum derivative	No information available	No information available	No information available	No information available

Persistence and degradability
No information available

Bioaccumulative potential
No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

Disposal Method	Disposal should be made in accordance with federal, state, and local regulations.
Contaminated Packaging	Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION**Canadian TDG**

UN Number:	Not restricted.
UN Proper Shipping Name:	Not restricted except for ADR
Transport Hazard Class(es):	Not applicable

IATA/ICAO

UN Number:	Not restricted.
UN Proper Shipping Name:	Not restricted except for ADR
Transport Hazard Class(es):	Not applicable

IMDG/IMO

UN Number:	Not restricted.
UN Proper Shipping Name:	Not restricted except for ADR
Transport Hazard Class(es):	Not applicable

Special Precautions for User	None
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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. REGULATORY INFORMATION

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

Canadian Regulations**Canadian DSL Inventory****WHMIS Hazard Class**

All components listed on inventory or are exempt.
B3 Combustible Liquids
D2B Toxic Materials

WHMIS Symbol(s)



15. REGULATORY INFORMATION**US Regulations****US TSCA Inventory**

All components listed on inventory or are exempt.

16. OTHER INFORMATION**Preparation Information****Prepared By**

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e-mail: fdunexchem@halliburton.com

Revision Date:

25-Apr-2013

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

Not applicableNot 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.

Key or legend to abbreviations and acronyms

WHMIS: Workplace Hazardous Materials Information System

Key literature references and sources for datawww.ChemADVISOR.com/**Disclaimer Statement**

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