

**MATERIAL SAFETY DATA SHEET****Product Trade Name:** LGC-5C**Revision Date:** 25-Apr-2013**Revision Number:** 8**1. Product and Company Identification****Product Identifier**

**Product Trade Name:** LGC-5C  
**Synonyms:** None  
**Chemical Family:** Blend  
**Internal ID Code:** HM004363

**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  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

**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.  
Combustible

**3. Composition/information on Ingredients**

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry Number	Filing Date
Gas oils, petroleum, straight-run	64741-43-1	10 - 30%	Not applicable	Not applicable
Petroleum distillate	64741-44-2	10 - 30%	Not applicable	Not applicable

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

#### **Skin**

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

#### **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 or 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

Carbon monoxide and carbon dioxide.

## 6. Accidental release measures

### Personal precautions and emergency procedures

#### **Protective Equipment**

Use appropriate protective equipment.

#### **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.

### Conditions for safe storage and incompatible materials for storage

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Keep from heat, sparks, and open flames.

## 8. Exposure Controls/Personal Protection

### Occupational Exposure Limits

#### Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Gas oils, petroleum, straight-run	64741-43-1	Not applicable	Not applicable
Petroleum distillate	64741-44-2	Not applicable	Not applicable

### Appropriate engineering controls

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

### 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:** Hydrocarbon

**Color:** Yellowish  
**Odor Threshold:** No information available

#### Property

Remarks/ - Method

#### Values

**pH:** No information available.  
**pH Concentration of Solution:** No information available.  
**Freezing Point/Range** No information available.  
**Melting Point/Range** No information available.  
**Boiling Point/Range (C):** 204-371 °C  
**Flash Point/Range (C):** 77 °C  
**Flash Point Method:** No information available.  
**Autoignition Temperature (C):** > 225  
**Flammability Limits in Air - Lower (%):** 0.7  
**Flammability Limits in Air - Upper (%):** 6  
**Evaporation Rate (Butyl Acetate=1):** No information available.  
**Vapor Pressure @ 20 C (mmHg):** 3.65  
**Vapor Density (Air=1):** 4.25  
**Specific Gravity @ 20 C (Water=1):** No information available.  
**Solubility in Water (g/100ml):** Insoluble  
**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**

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****Chronic Effects/Carcinogenicity**

The full refining history is known and it can be shown that the production substance is not carcinogen, therefore the classification as a carcinogen need not apply.

**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**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

**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	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Gas oils, petroleum, straight-run	64741-43-1	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	1.72 mg/L ( Rat ) 4 h
Petroleum distillate	64741-44-2	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	1.72 mg/L ( Rat ) 4 h

## 12. Ecological Information

### Toxicity Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity for Invertebrates
Gas oils, petroleum, straight-run	64741-43-1	No information available	No information available	No information available	No information available
Petroleum distillate	64741-44-2	No information available	No information available	No information available	No information available

### Persistence and Degradability

No information available

### Bioaccumulation 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  
Transport Hazard Class(es): Not applicable

### IATA/ICAO

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

### IMDG/IMO

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

**Special Precautions for User**            None

**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**            All components listed on inventory or are exempt.

**WHMIS Hazard Class**            B3 Combustible Liquids  
D2B Toxic Materials

**WHMIS Symbol(s)**



**US Regulations**

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

## 16. Other Information

**Preparation Information**

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

**Revision Date:**            25-Apr-2013

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.

**Key or legend to abbreviations and acronyms**

WHMIS: Workplace Hazardous Materials Information System

**Key literature references and sources for data**

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

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