

MATERIAL SAFETY DATA SHEET**Product Trade Name:** LGC-36 UC**Revision Date:** 26-Mar-2014**Revision Number:** 8**1. Product and Company Identification****Product Identifier**

Product Trade Name: LGC-36 UC
Synonyms: None
Chemical Family: Blend
Internal ID Code HM006195

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**WHIMIS Classification**

WHIMIS Hazard Class B3 Combustible Liquids
D2B Toxic Materials

WHIMIS 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.

3. Composition/information on Ingredients

| Substances | CAS Number | PERCENT (w/w) | HMIRA Registry Number | Filing Date |
|---|------------|---------------|-----------------------|----------------|
| Hydrotreated light petroleum distillate | 64742-47-8 | 30 - 60% | Not applicable | Not applicable |
| Guar gum | 9000-30-0 | 30 - 60% | 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. Remove contaminated clothing and launder before reuse. |
| Ingestion | Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person. |

Most important symptoms and effects, both acute and delayed

May cause eye and skin 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

Carbon dioxide, dry chemical, foam.

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. Wash hands after use. Launder contaminated clothing before reuse.

Conditions for safe storage and Incompatible materials for storage

Store away from oxidizers. Store in a cool well ventilated area. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 24 months.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Exposure Limits

| Substances | CAS Number | ACGIH TLV-TWA | OSHA PEL-TWA |
|---|------------|----------------------|----------------------|
| Hydrotreated light petroleum distillate | 64742-47-8 | Not applicable | Not applicable |
| Guar gum | 9000-30-0 | 10 mg/m ³ | 15 mg/m ³ |

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

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, AS/NZS 1715:2009, 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:

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

Impervious rubber gloves.

Normal work coveralls.

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

Eye wash fountains and safety showers must be easily accessible.

Hand Protection

Skin Protection

Eye Protection

Other Precautions

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid

Color: Off white

Odor: Mild hydrocarbon

Odor Threshold: No information available

Property

Remarks/ - Method

Values

pH:

6.5 - 7.5

pH Concentration of Solution:

No information available.

Freezing Point/Range

No information available.

Melting Point/Range

No information available

Boiling Point/Range (C):

200

Flash Point/Range (C):

82

Flash Point Method:

No information available.

Autoignition Temperature (C):

No information available.

Flammability Limits in Air - Lower (%):

No information available.

Flammability Limits in Air - Upper (%):

No information available.

Evaporation Rate (Butyl Acetate=1):

No information available.

Vapor Pressure @ 20 C (mmHg):

< 0.15

Vapor Density (Air=1):

No information available.

Specific Gravity @ 20 C (Water=1):

1.086

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 allergic respiratory reaction. May cause chemical pneumonia. 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 irritation. Causes drying of the skin.

Ingestion

Irritation of the mouth, throat, and stomach. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.

Chronic effects from exposure**Chronic Effects/Carcinogenicity**

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Irritancy of product**Irritation**

Mild eye irritant. Mild skin irritant.

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 |
|---|------------|--------------------|-----------------------|--------------------|
| Hydrotreated light petroleum distillate | 64742-47-8 | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | 5.28 mg/L (Rat) 4h |
| Guar gum | 9000-30-0 | 6770 mg/kg (Rat) | No data available | No data available |

12. Ecological Information

Toxicity

Ecotoxicity Effects

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Toxicity to Invertebrates |
|---|------------|---|---|----------------------------|---|
| Hydrotreated light petroleum distillate | 64742-47-8 | EC50(72h): > 10,000 mg/L (Skeletonema costatum) (ISO 10253) | LC50 96h): > 10,000 mg/L (Scophthalmus maximus) (OSPARCOM 1995) | No information available | LC50(48h): > 10,000 mg/L (Acartia tonsa) (ISO 14669) EC50(48h): 1100 mg/L (mobility) (Daphnia pulex) |
| Guar gum | 9000-30-0 | No information available | No information available | No information available | No information available |

Persistence and Degradability

No information available

Bioaccumulation potential

No information available

| Substances | Log Pow |
|---|---------|
| Hydrotreated light petroleum distillate | 7.5 |

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

Product contains one or more components not listed on the inventory.

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

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e-mail: fdunexchem@halliburton.com

Revision Date:

26-Mar-2014

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/

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END OF MSDS