



## I. Chemical Product and Company Identification

Product Name: LSG-100  
Identification #: 35-485-0110  
Product Use/Class: Gelling Agent  
Supplier: Nabors Completion and Production Services  
515 W. Greens Road, Suite 1100, Houston, TX 77067  
Supplier Tracking Code: 1948  
Emergency Contact: CHEMTREC 1 (800) 424-9300  
Prepared By: LZ  
Date Prepared: 12/02/2011

## II. Composition/Information on Ingredients

Chemical Name: Solvent naphtha, (petroleum) heavy aliphatic  
CAS Number: 64742-47-8  
Percent by Mass Less Than: 40 - 65 %

### Exposure Limits

Threshold Limit Value - Time Weighted Average: 500 ppm  
Threshold Limit Value - Short Term Exposure Limit: N/A  
Permissible Exposure Limit - Time Weighted Average: 100 ppm  
Permissible Exposure Limit - Ceiling: N/A  
Company Threshold Limit - Time Weighted Average: N/A  
Skin: N/A

Chemical Name: Proprietary non-hazardous polymers  
CAS Number: Proprietary  
Percent by Mass Less Than: 45 – 60 %

### Exposure Limits

Threshold Limit Value - Time Weighted Average: N/A  
Threshold Limit Value - Short Term Exposure Limit: N/A  
Permissible Exposure Limit - Time Weighted Average: N/A  
Permissible Exposure Limit - Ceiling: N/A  
Company Threshold Limit - Time Weighted Average: N/A  
Skin: N/A

## III. Hazardous Identification

Emergency Overview: N/A  
 Eye Contact: May cause irritation.  
 Skin Contact: N/A  
 Inhalation: May cause respiratory irritation.  
 Ingestion: N/A  
 Chronic Harards: N/A

Primary Route(s) of Entry:	<input type="checkbox"/> Skin Contact	<input checked="" type="checkbox"/> Eye Contact	<input type="checkbox"/> Ingestion
	<input type="checkbox"/> Skin Absorbtion	<input checked="" type="checkbox"/> Inhalation	

### IV. First Aid Measures

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention.

**Skin Contact:** Wash with plenty of soap and water. Immediately remove contaminated clothing. If skin irritation occurs, seek medical attention. Launder contaminated clothing before reuse.

**Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If irritation persists or if toxic symptoms are observed, seek medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. Seek immediate medical attention. Call a poison center or doctor if ingested.

### V. Fire Fighting Measures

**Flash Point:** 76.7 C (170 F) PMCC

**Auto Ignition Temperature:** N/A

**Lower Explosive Temp.:** N/A

**Upper Explosive Temp.:** N/A

**Extinguishing Media:** CO2, dry chemical, or foam. Water can be used to cool and protect exposed material, however, may cause splattering.

**Unusual Fire and Explosive Harards:** N/A

**Special Fire Fighting Procedures:** Do not enter confined fire space without full helmet with face and shield, rubber boots, gloves and fire coat, including a NIOSH approved self-contained breathing apparatus. Aqueous solutions that become wet render surfaces extremely slippery.

### VI. Accidental Release Measures

**Steps to be Taken in Case Material is Released or Spilled:**

Personal precautions: Avoid contact with skin, eyes, and clothing.

Personal protection: Wear PVC, neoprene or nitrile rubber gloves, gauntlet type, PVC one-piece suit with integral hood, rubber safety boots, knee length.

Respiratory Protection: Use NIOSH approved air purifying respirator.

Clean-up methods: Absorb or contain material with sand, earth or spill control material.

Shovel up and place in a labeled sealable container for subsequent safe disposal.

## VII. Handling and Storage

Handling: Avoid prolonged or repeated contact with skin, eyes and clothing.  
Storage: Keep containers closed and dry.

## VIII. Exposure Controls/Personal Protection

Engineering Controls: General ventilation is recommended during normal use.  
Respiratory Protection: Use a NIOSH/MSHA approved air purifying respirator with an organic/amine vapor cartridge when airborne concentrations are expected to exceed exposure limits. Protection by air purifying respirators is limited.  
Skin Protection: Selection of protective clothing may include gloves, apron, boots and facial protection depending on the operations conducted. Wear chemical resistant gloves (PVC, nitrile, neoprene).  
Eye Protection: Safety goggles.  
Other Protective Equipment: N/A  
Hygienic Practices: N/A

## IX. Physical and Chemical Properties

Boiling Point:	ND	Vapor Density:	>14
Odor:	Characteristic	Odor Threshold:	N/A
Appearance:	Yellow to Tan Suspension	Evaporation Rate:	N/A
Solubility in H <sub>2</sub> O:	NA	Specific Gravity:	1.02
Freeze Point:	N/A	pH at 50.0%:	N/A
Vapor Pressure:	N/A	Viscosity:	250 cP
Physical State:	Liquid		
Coefficient of Water Oil Distribution:	N/A		

## X. Stability and Reactivity

Conditions to Avoid: N/A  
Incompatibility: Avoid contact with strong acids and oxidizers.  
Hazardous Decomposition Products: N/A  
Hazardous Polymization: Will not occur under normal use and storage conditions.  
Stability: This material is considered chemically and thermally stable. Avoid extreme temperature.

## XI. Toxicological Properties

Toxicological Properties: No product information is available.  
Oral: Product is classified as moderately irritating to the digestive tract.  
Dermal: Product is classified as moderately irritating to the skin.  
Inhalation: Product is classified as moderately irritating to the eyes.

## XII. Ecological Information

Ecological Properties: No product information is available.

Ecotoxicity: No product information is available.

Chemical Fate Information: No product information is available.

### ***XIII. Disposal Consideration***

**Disposal Method:** This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

**RCRA Status:** The information on RCRA waste classification and disposal methodology provided above applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA 'listed hazardous waste or has any of the four RCRA 'hazardous waste characteristics. Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA 'listed hazardous waste'; information contained in Section 15 of this MSDS is not intended to indicate if the product is a 'listed hazardous waste.'

RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61 24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

### ***XIV. Transportation Information***

**DOT Proper Shipping Name:** Not DOT Regulated

**DOT Technical Name:**

**DOT Hazard Class:**

**DOT Hazard Subclass:**

**DOT UN/NA Number:**

**Packing Group:**

**Resp. Guide Page:**

## ***XV. Regulatory Information***

OSHA: No Information

TSCA Status: All components of this product are listed on the TSCA 8(b) inventory. If identical components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

CERCLA SARA: Immediate (acute) health hazard - NO  
Chronic health hazard – YES  
Fire hazard - NO  
Reactivity hazard – NO

SARA Section 313  
Required Reporting:

## ***XVI. Other Information***

Other Information: NA = Not applicable    ND = Not Determined    NI = No Information    NE = Not Established

MSDS Updated: 5/17/2013

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This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, or when used in conjunction with other products, exposures must be evaluated by the user so that appropriate handling practices and training programs can be established to ensure safe workplace operations. This information is confidential to Nabors Completion & Production Services Company (Nabors) and intended solely for the use of the individual or entity to whom they are directly distributed. Distribution or use beyond the individual or entity is strictly prohibited without the consent of Nabors.