

## MATERIAL SAFETY DATA SHEET

(USA)

(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

Version: 1

Revision date: 16 July 2004

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Product code:** S074L.1-1630  
**Product name:** Super LC®  
**Company identification:** Schlumberger Technology Corporation  
110 Schlumberger Drive  
Sugar Land, Texas 77478, USA  
Telephone: 1-281-285-7873  
**Emergency telephone number:** USA: 1-281-595-3518

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

#### WARNING

**Main physical hazards:** No classified physical hazards.  
**Main health hazards:** Respirable dust. CANCER HAZARD. This product may contain small amounts of respirable crystalline silica. Repeated or prolonged inhalation of crystalline silica dust can cause delayed lung injury, and other diseases, including silicosis and lung cancer.  
**Main environmental hazards:** None known.  
**Precautions:** Avoid dust formation. Do not breathe dust. Wear suitable protective equipment.  
**HMIS classification:** Health: 0 Flammability: 1 Physical hazard: 0 PPE: E

**Form:** Granules      **Color:** Yellow - Brown      **Odor:** None

**Principle routes of exposure:**  
Inhalation. Eye contact.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components classified as hazardous:

Component	CAS-No	Weight % - Range
Crystalline silica	14808-60-7	60 - 100

### 4. FIRST AID MEASURES

**General advice:** Consult a physician if necessary.  
**Eye contact:** Rinse with water.  
**Skin contact:** Rinse with water.  
**Ingestion:** Rinse mouth. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air.  
**Additional first aid remarks:** Consult a physician if necessary.

## 5. FIRE-FIGHTING MEASURES

**Fire hazard:** Resin coating combustible.  
**Flash point:** Does not flash.  
**Autoignition temperature:** No data available.  
**Flammability limits in air:**  
**Lower:** Not applicable  
**Upper:** Not applicable  
**Oxidizing properties:** None.

**Suitable extinguishing media:**  
Compatible with all types.

**Extinguishing media which must not be used for safety reasons:**  
None known

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases:**  
Thermal decomposition can lead to release of irritating gases and vapors.

**Special protective equipment for firefighters:**  
Wear protective fire fighting clothing and avoid breathing vapors. Use self-contained breathing apparatus in closed areas.

**NFPA rating:**  
**Health:** 1  
**Flammability:** 1  
**Instability:** 0  
**Special:** None

## 6. ACCIDENTAL RELEASE MEASURES

**Main physical hazards:** No classified physical hazards.  
**Personal precautions:** Do not breathe dust. Wear suitable protective equipment. See also Section 8.  
**Methods for cleaning up:** Shovel into suitable container for disposal.  
**Environmental precautions:** Prevent product from entering drains.

## 7. HANDLING AND STORAGE

**Handling:**  
**Precautions:** Avoid dust formation. Do not breathe dust. Wear suitable protective equipment.  
**Safe handling advice:** Provide appropriate exhaust ventilation at places where dust is formed.  
**Technical measures/ storage conditions:** No special storage conditions required.  
**Packaging requirements:** Paper bag (minimum 3 ply), or other industrial container designed for powders and granulated materials.  
**Incompatible products:** None known.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering measures to reduce exposure:</b>	Local exhaust ventilation. Enclosure of the process. Other suitable methods.
<b>Hygiene measures:</b>	Keep airborne concentrations below exposure limits. Wear suitable protective equipment. Avoid contact with eyes.
<b>Respiratory protection:</b>	Use NIOSH approved respirator with dust and mist protection (3M 8210). If dust concentration exceeds 5 times the exposure limit, wear an approved HEPA respirator.
<b>Eye protection:</b>	Safety glasses with side-shields.
<b>Hand protection:</b>	Cotton gloves.
<b>Skin and body protection:</b>	No special precautions required.

### Occupational Exposure Limits

Component	ACGIH - TLVs			OSHA - PELs	
	TWA / Ceiling	STEL	Skin	TWA / C	STEL
Crystalline silica	0.05 mg/m <sup>3</sup> TWA				

#### Nuisance dust:

ACGIH: inhalable particulate TLV-TWA=10 mg/m<sup>3</sup>; respirable particulate TLV-TWA= 3 mg/m<sup>3</sup>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Chemical characterization:</b>	Resin-coated sand.
<b>Fire hazard:</b>	Resin coating combustible.
<b>Form:</b>	Granules
<b>Color:</b>	Yellow - Brown
<b>Odor:</b>	None
<b>Odor threshold:</b>	None.
<b>pH:</b>	Not applicable.
<b>Boiling point/range:</b>	Not applicable.
<b>Flash point:</b>	Does not flash.
<b>Flammability limits in air:</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Bulk density:</b>	1100 - 1600 kg/m <sup>3</sup>
<b>Melting point/range:</b>	Not applicable.
<b>Decomposition temperature:</b>	No data available.
<b>Solubility:</b>	
<b>Water solubility:</b>	Insoluble.
<b>Fat solubility:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not applicable.
<b>Relative density:</b>	2.5 (@ 20°C)
<b>Vapor pressure:</b>	Not applicable.
<b>Vapor density:</b>	Not applicable.
<b>Viscosity:</b>	Not applicable.
<b>Evaporation rate:</b>	Not applicable.
<b>% Volatile:</b>	None.

## 10. STABILITY AND REACTIVITY

#### Stability:

Stable.

#### Conditions to avoid:

None known.

**Incompatibility with other substances:**

None known.

**Hazardous decomposition products:**

See also section 5.

**Hazardous polymerization:**

Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION****PRODUCT TOXICOLOGICAL INFORMATION****Acute Health Hazard**

<b>Eye contact:</b>	May cause mechanical irritation.
<b>Skin contact:</b>	No effect expected.
<b>Ingestion:</b>	Accidental ingestion of small amounts is not expected to cause adverse effects.
<b>Inhalation:</b>	Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. This product may contain small amounts of respirable crystalline silica. Repeated or prolonged inhalation of crystalline silica dust can cause delayed lung injury, and other diseases, including silicosis and lung cancer.
<b>Sensitization - lung:</b>	None.
<b>Sensitization - skin:</b>	None.

**Chronic Health Hazard**

<b>Carcinogenic effects:</b>	Crystalline silica dust is listed by IARC in Group 1 as known to cause lung cancer in humans, if inhaled. Risk of cancer depends on duration and level of exposure.
<b>Mutagenic effects:</b>	Not known to cause heritable genetic damage.
<b>Teratogenic effects:</b>	Not known to cause birth defects or have a deleterious effect on a developing fetus.
<b>Reproductive toxicity:</b>	Not known to adversely affect reproductive functions and organs.
<b>Target organ effects:</b>	Silicosis. Lung cancer.

**COMPONENT TOXICOLOGICAL INFORMATION**

Component	Target Organ Effects	LD50 / LC50
Crystalline silica	eyes, respiratory system	

Component	IARC:	ACGIH - Carcinogens:	OSHA - Regulated Carcinogens:	NTP:
Crystalline silica	Group 1; Monograph 68, 1997 (inhaled in the form of quartz or cristobalite from occupational sources)	A2 - Suspected Human Carcinogen		Known Carcinogen

---

**12. ECOLOGICAL INFORMATION**

---

**PRODUCT INFORMATION****Main environmental hazards:**

None known.

**Persistence / Degradability:**

The organic portion of this material is not biodegradable.

**Bioaccumulation potential:**

None.

**Aquatic toxicity:**

This product has no known eco-toxicological effects.

**Ecotoxicity effects:**

None known.

**COMPONENT INFORMATION**

Crystalline silica

**Bioaccumulation:** Does not bioaccumulate**Persistence / degradability:** The methods for determining biodegradability are not applicable to inorganic substances.

---

**13. DISPOSAL CONSIDERATIONS**

---

**Waste from residues / unused products:**

Dispose of by sanitary landfilling or other acceptable method in accordance with local regulations.

**Contaminated packaging:**

Dispose of in accordance with local regulations.

**EPA RCRA Hazardous Waste Code:**

None

---

**14. TRANSPORT INFORMATION**

---

**DOT:****CERCLA RQ:** None**Hazard class:** Not regulated.**Proper shipping name:** Not regulated.**Label(s):** None required.**IMDG/IMO****Shipping name:** Not regulated.**UN number:** None

**ICAO/IATA**

**Shipping name:** Not regulated.

**UN number:** None

**TDG (Canada):**

**Shipping name:** Not regulated.

**PIN:** None

*Note 1:*

*For the applicable placard selection refer to the appropriate transport regulations; the selection may vary depending on the cargo size and categories of other hazardous materials in the cargo.*

**15. REGULATORY INFORMATION****International chemical inventories**

**Inventory - United States TSCA** - This product complies with TSCA requirements.  
**Canada DSL Inventory List** - This product complies with DSL requirements.  
**EU EINECS/ELINCS** - This product complies with EINECS/ELINCS requirements.  
**China inventory of existing chemical substances list** - This product complies with China inventory requirements.  
**Inventory - Japan - Existing and New Chemicals list - Australia (AICS):** This product does not comply with JPENCS  
All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**U.S.A. regulations**

**OSHA Hazard Communication Standard:**  
(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

**EPA RCRA Hazardous Waste Code:**  
None

**EPA, Sections 311 and 312 - Material Safety Data Sheet Requirements (40 CFR 370):**

<b>Immediate (Acute) Health Hazard:</b>	None
<b>Delayed (Chronic) Health Hazard:</b>	YES
<b>Fire Hazard:</b>	None
<b>Sudden Release or Pressure Hazard:</b>	None
<b>Reactive Hazard:</b>	None

**EPA, Sections 313 - List of Toxic Chemicals (40 CFR 372):**  
This product contains the following substance(s), which appear(s) on the List of Toxic Chemicals:

**Additional Regulatory Information**

Crystalline silica

**EPA, CERCLA Section 102a/103 Hazardous Substances (40 CFR 302.4):** None  
**CERCLA/SARA - Hazardous Substances and their RQs:** None  
**EPA, SARA TITLE III Section 304, Extremely Hazardous Substances (40 CFR 355.40):** None  
**California Proposition 65:** carcinogen (airborne particles of respirable size); initial date 10/1/88

**WHMIS Hazard Class:**  
D2A (Other Toxic Effects - Very Toxic Material)

**16. OTHER INFORMATION****Current references:**

1. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. *American Conference of Governmental Industrial Hygienists, Cincinnati OH.*
2. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. *World Health Organization, International Agency for Research on Cancer. Geneva, Switzerland.*
3. Annual Report on Carcinogens. National Toxicology Program. *U.S. Department of Health and Human Services, Public Health Service.*
4. NIOSH Registry of Toxic Effects of Chemical Substances (RTECS). *National Institute for Occupational safety and Health. Cincinnati, OH.*
5. LOLI Database.

**Explanation of terms:**

ACGIH:	American Conference of Governmental Industrial Hygienist
ACGIH-TL:	Threshold Limit Value
DSL:	Domestic Substance List
HMIRC:	Hazardous Materials Information Review Commission
IARC:	International Agency for Research on Cancer
NTP:	National Toxicology Program
NIOSH:	National Institute of Occupational Safety & Health
NIOSH-REL:	Recommended Exposure Limit
OSHA	Occupational Safety & Health Administration
OSHA-PEL:	Permissible Exposure Limit
TSCA:	Toxic Substance Control Act (Inventory)

Occupational Exposure Limits indicators: TWA - Time Weighted Average; STEL - Short Term Limit; C - Ceiling Limit; units: [mg/m<sup>3</sup>]

**ACGIH Notations:**

"Skin" refers to the potential significant contribution to the overall exposure by the cutaneous route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance.

"A" notation indicates carcinogenicity as follows:

ACGIH classification: A1 - Confirmed Human Carcinogen; A2 - Suspected Human Carcinogen; A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans; A4 - Not Classifiable as a Human Carcinogen; A5 - Not suspected as a Human Carcinogen.

"SEN" refers to the potential for an agent to product sensitization as confirmed by human and animal data.

**Section(s) revised:** MSDS fully updated in the new database.

**Additional advice:** Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

**Prepared by:** Well Services Safety & Environment

**Revision date:** 16 July 2004

The information and recommendations contained herein are based upon tests believed to be reliable. However, Schlumberger does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. Schlumberger assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of the Material Safety Data Sheet**