

## Safety Data Sheet VG-69\*

### 1. Identification

#### 1.1 Product identifier

Product name VG-69\*

Product code 10045

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Drilling fluid additive.

Uses advised against Consumer use

#### 1.3 Details of the supplier of the safety data sheet

**Supplier**

**M-I L.L.C.**

P.O.Box 42842

Houston, TX 77242

www.miswaco.slb.com

Telephone: 1 281-561-1511

**Schlumberger Canada, Ltd.**

200, 125 - 9th Avenue SE

Calgary, Alberta T2G 0P6, Canada

Telephone: 1-613-992-4624

**E-mail address** sdsmi@slb.com

**Prepared by**

Global Regulatory Compliance - Chemicals (GRC - Chemicals)

#### 1.4 Emergency Telephone Number

**Emergency telephone** (24 Hour) Asia Pacific +65 3158 1074, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, USA +1 281 561 1600, Canada +1 800 579 7421, Argentina: +54 11 5984 3690, Brazil : 0800-720-8000/0800-777-2323 (WGRA)

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**GHS - Classification**

**Health hazards**

Carcinogenicity	Category 1A
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**Environmental hazards** Not classified

## Physical Hazards

Combustible dust

## 2.2 Label elements



### Signal word

DANGER

### Hazard statements

H350i - May cause cancer by inhalation

H232 - May form combustible dust concentrations in air

### Precautionary statements

P201 - Obtain special instructions before use

P281 - Use personal protective equipment as required

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P202 - Do not handle until all safety precautions have been read and understood

P501 - Dispose of contents/ container to an approved waste disposal plant

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P243 - Take precautionary measures against static discharge

### Hazards not otherwise classified

None known

**Unknown acute toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity.

## 3. Composition/information on Ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical Name	CAS No	Weight-%	Regulation (EC) No 1272/2008
Organophilic clay	Proprietary	60 - 100	Not classified
Silica, crystalline, quartz	14808-60-7	1 - 5	Not classified

### Comments

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret. Proprietary component(s) in section 3 of this SDS does not/do not trigger application of trade secret exemption under Hazardous Materials Information Review Act (HMIRA). The proprietary component in this product contributes to combustible dust classification.

IARC Monographs, Vol. 68, 1997, concludes that there is sufficient evidence that inhaled crystalline silica in the form of quartz or

cristobalite from occupational sources causes cancer in humans. IARC Classification Group I.

## **4. First aid measures**

### **4.1 First aid measures**

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, (trained personnel should) give oxygen. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. If vomiting occurs spontaneously, minimize the risk of aspiration by properly positioning the affected person. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.
<b>Eye Contact</b>	Promptly wash eyes with lots of water while lifting eye lids. Remove contact lenses, if worn. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

### **4.2. Most important symptoms and effects, both acute and delayed**

#### **Symptoms**

<b>Inhalation</b>	Please see Section 11. Toxicological Information for further information.
<b>Ingestion</b>	Please see Section 11. Toxicological Information for further information.
<b>Skin contact</b>	Please see Section 11. Toxicological Information for further information.
<b>Eye contact</b>	Please see Section 11. Toxicological Information for further information.

### **4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	Treat symptomatically Keep victim under observation
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## **5. Fire-fighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Water Fog, Alcohol Foam, CO<sub>2</sub>, Dry Chemical.

#### **Extinguishing media which must not be used for safety reasons**

None known.

### **5.2. Special hazards arising from the substance or mixture**

#### **Unusual fire and explosion hazards**

Dusts or fumes may form explosive mixtures in air.

#### **Hazardous combustion products**

Silicon oxide, Nitrogen oxides (NO<sub>x</sub>), Carbon oxides (CO<sub>x</sub>), Ammonia.

### **5.3 Advice for firefighters**

#### **Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

## **6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment. Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Avoid dust formation.

### **6.2 Environmental precautions**

Do not allow material to contaminate ground water system.

#### **Environmental exposure controls**

Local authorities should be advised if significant spillages cannot be contained.

### **6.3 Methods and material for containment and cleaning up**

#### **Methods for containment**

Cover powder spill with plastic sheet or tarp to minimize spreading.

#### **Methods for cleaning up**

Shovel into suitable container for disposal. Avoid dust formation. Powdered material may form explosive dust-air mixtures. Take precautionary measures against static discharges. Use non-sparking tools and equipment.

### **6.4 Reference to other sections**

See section 13 for more information.

## **7. Handling and storage**

### **7.1 Precautions for safe handling**

#### **Handling**

Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust; if exposed to high dust concentration, leave area immediately. Avoid contact with skin, eyes and clothing. Avoid dust formation. Fine dust dispersed in air may ignite. Take precautionary measures against static discharges.

### **7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures/precautions** Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. Use spark-proof tools and explosion-proof equipment.

**Storage precautions** Protect from moisture. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.

## **8. Exposure controls/personal protection**

### **8.1 Control parameters**

(6) Ammonia or amines may be released when this component is heated or exposed to high pH. The recommended exposure limits for ammonia are ACGIH TLV 25 ppm and OSHA PEL 50 ppm. No general recommended exposure limit is available for amines. A NIOSH/MSHA approved respirator with ammonia/methylamine cartridges should be used to protect against ammonia or amine inhalation exposure

Chemical Name	ACGIH TLV	OSHA PEL	Argentina - Occupational Exposure Limits - TWAs (CMPs)	Brazil - Occupational Exposure Limits - TWAs (LTs)	Mexico - Occupational Exposure Limits - TWAs (LMPE-PPTs)
Organophilic clay	Not determined	Not determined	Not determined	Not determined	Not determined
Silica, crystalline, quartz	0.025 mg/m <sup>3</sup>	see Table Z-3	0.05 mg/m <sup>3</sup> TWA	Not determined	0.1 mg/m <sup>3</sup> TWA VLE-PPT (respirable fraction)

Silica, crystalline, quartz

OSHA - Final PELs - Table Z-3 Mineral Dusts  
(250)/(%SiO<sub>2</sub> + 5) mppcf TWA, respirable fraction; (10)/(%SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, respirable fraction

### **IDLH (Immediately Dangerous to Life or Health)**

This product does not contain any substances classified as Immediately Dangerous to Life or Health (IDLH) by the US National Institute for Occupational Safety and Health (NIOSH). The purpose of establishing an IDLH value is to ensure that the worker can escape from a given contaminated environment in the event of failure of the most protective respiratory protection equipment. In the event of failure of respiratory protection equipment every effort should be made to exit immediately.

Chemical Name	IDLH (Immediately Dangerous to Life or Health)
Silica, crystalline, quartz 14808-60-7	50 mg/m <sup>3</sup> IDLH (respirable dust)

## **8.2 Exposure controls**

A risk assessment is recommended to be performed by a qualified and trained personnel to analyze the worksite and recommends the appropriate controls such as engineering controls, work practice controls, and administrative controls as primary means of reducing employee exposure. When there is a remaining hazards after applying the primary controls, Personal Protective Equipment (PPE) must be used.

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

### **Engineering Controls**

Keep airborne concentrations below exposure limits. Ensure adequate ventilation. Local exhaust ventilation. Apply technical measures to comply with the occupational exposure limits.

### **Personal protective equipment**

<b>Eye protection</b>	Tightly fitting safety goggles.
<b>Hand protection</b>	Neoprene Nitrile
<b>Respiratory Protection</b>	All respiratory protection equipment should be used within a comprehensive respiratory protection program that meets the requirements of 29 CFR 1910.134 (U.S. OSHA Respiratory Protection Standard) or local equivalent. If exposed to airborne mist/aerosol of this product, use an organic vapor cartridge with a P-95 pre-filter attached. In work environments containing oil mist/aerosol, use an organic vapor cartridge with a P-95 pre-filter attached. If exposed to vapors from this product, use a NIOSH/MSHA-approved respirator with an organic vapor cartridge.
<b>Skin and body protection</b>	Wear suitable protective clothing, Eye wash and emergency shower must be available at the work place.
<b>Hygiene Measures</b>	Wash hands before breaks and immediately after handling the product, Remove and wash contaminated clothing before re-use.

## **9. Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance</b>	Opaque
<b>Color</b>	Tan - Gray
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not applicable

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks</u></b>
<b>pH</b>	Not applicable	
<b>pH @ dilution</b>		
<b>Melting / freezing point</b>		
<b>Boiling point/range</b>	No information available	

<b>Flash point</b>	No information available	PMCC
<b>Evaporation rate (BuAc =1)</b>	No information available	
<b>Flammability (solid, gas)</b>	Not applicable	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No information available	
<b>Lower flammability limit</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Specific gravity</b>	1.5 - 1.7	
<b>Bulk density</b>	No information available	
<b>Water solubility</b>	Negligible	
<b>Solubility in other solvents</b>	Insoluble	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>log Pow</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

## **9.2 Other information**

<b>Pour point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content(%)</b>	No information available
<b>Density</b>	No information available

### **Comments**

The data listed above are typical physical and chemical properties and should not be construed as product specification.

## **10. Stability and reactivity**

### **10.1 Reactivity**

Contact with strong bases liberates ammonia. Dust may form explosive mixture in air.

### **10.2 Chemical stability**

Stable. Hazardous polymerization does not occur.

### **10.3 Possibility of Hazardous Reactions**

#### **Hazardous polymerization**

Hazardous polymerization does not occur.

### **10.4 Conditions to avoid**

Avoid handling causing generation of dust. Avoid contact with heat, sparks, open flame, and static discharge.

### **10.5 Incompatible materials**

Strong oxidizing agents.

### **10.6 Hazardous decomposition products**

Silicon oxide. Carbon oxides (COx). Nitrogen oxides (NOx). Ammonia.

## **11. Toxicological information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

<b>Inhalation</b>	Inhalation of dust in high concentration may cause irritation of respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Repeated or prolonged inhalation of crystalline silica dust can cause delayed lung injury, and other diseases, including silicosis and lung cancer.
<b>Eye contact</b>	Dust contact with the eyes can lead to mechanical irritation.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Organophilic clay	> 5000 mg/kg ( Rat )	No data available	> 12.6 mg/L ( Rat ) 4 h
Silica, crystalline, quartz	= 500 mg/kg ( Rat )	No data available	No data available

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Organophilic clay	No data available	No data available	No data available	No data available
Silica, crystalline, quartz	Group 1; Monograph 100C [2012] Monograph 100C [2012] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources); Monograph 68 [1997] Group 1; Monograph 68 [1997]	A2 Suspected Human Carcinogen	Present	Known Human Carcinogen

<b>Sensitization</b>	Not classified.
<b>Mutagenic effects</b>	No evidence of mutagenic properties.
<b>Carcinogenicity</b>	Contains a known or suspected carcinogen. Crystalline silica dust is listed by IARC in Group 1 as known to cause lung cancer in humans, if inhaled.
<b>Reproductive toxicity</b>	No evidence of toxicity to reproduction.
<b>Developmental toxicity</b>	Not known to cause birth defects or have a deleterious effect on a developing fetus.
<b>Routes of exposure</b>	Skin contact. Inhalation. Eye contact.
<b>Routes of entry</b>	Inhalation.
<b>Specific target organ toxicity - Single exposure</b>	Not classified
<b>Specific target organ toxicity - Repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.

## 12. Ecological information

### 12.1 Toxicity

**Toxicity to algae**  
See component information below.

**Toxicity to fish**

See component information below.

**Toxicity to daphnia and other aquatic invertebrates**

See component information below.

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Organophilic clay	No information available	No information available	No information available
Silica, crystalline, quartz	No information available	No information available	No information available

**12.2 Persistence and degradability**

No product level data available.

**12.3 Bioaccumulative potential**

No product level data available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

**12.6 Other adverse effects.**

None known.

## 13. Disposal considerations

**13.1 Waste treatment methods**

**Disposal Method** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. Transport information

**14.1. UN number**

UN No. (DOT)	Not regulated
UN No. (MT/ANTT)	Not regulated
UN No. (TDG)	Not regulated
UN/ID No. (ADR/RID/ADN/ADG)	Not regulated
UN No. (IMDG/ANTAQ)	Not regulated
UN No. (ICAO/ANAC)	Not regulated

**14.2. UN proper shipping name**

The product is not covered by international regulation on the transport of dangerous goods

**14.3 Hazard class(es)**

<b>DOT Hazard class</b>	Not regulated
<b>ANTT Hazard class</b>	Not regulated
<b>TDG Hazard class</b>	Not regulated
<b>ADR/RID/ADN/ADG Hazard class</b>	Not regulated
<b>IMDG/ANTAQ Hazard class</b>	Not regulated
<b>ICAO/ANAC Hazard class/division</b>	Not regulated

**14.4 Packing group**

<b>DOT/ANTT Packing group</b>	Not regulated
<b>ANTT Packing group</b>	Not regulated
<b>TDG Packing group</b>	Not regulated
<b>ADR/RID/ADN/ADG Packing group</b>	Not regulated
<b>IMDG/ANTAQ Packing group</b>	Not regulated
<b>ICAO/ANAC Packing group</b>	Not regulated

**14.5 Environmental hazard**

No

**14.6 Special precautions**

Not applicable

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

Please contact MISDS@slb.com for info regarding transport in Bulk.

## 15. Regulatory information

**International inventories**

<b>USA (TSCA)</b>	Complies
<b>Canada (DSL)</b>	Complies
<b>Philippines (PICCS)</b>	Complies
<b>Japan (ENCS)</b>	Does not Comply
<b>China (IECSC)</b>	Complies
<b>Australia (AICS)</b>	Complies
<b>Korean (KECL)</b>	Complies
<b>New Zealand (NZIoC)</b>	Complies

**Europe - REACH**

Contact REACH@slb.com for REACH information.

**U.S. Federal and State Regulations**

**SARA 311/312 Hazard Categories**

Delayed (chronic) health hazard. Fire Hazard (Combustible Dust)

Chemical Name	SARA 302 / TPQs	SARA 313	CERCLA RQ
Organophilic clay	N/A	N/A	N/A
Silica, crystalline, quartz	N/A	N/A	N/A

**State Comments**

Proposition 65: This product contains chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 to cause cancer and/or reproductive toxicity. See table under U.S. Federal and State Regulations for the specific chemicals.

**Canadian Classification**

This Safety Data Sheet has been prepared in compliance with the Hazardous Products Regulations.

**16. Other information**

<b>Supersedes date</b>	22/Sep/2014
<b>Revision date</b>	07/Aug/2017
<b>Version</b>	9
<b>This SDS has been revised in the following section(s)</b>	All sections. Format changes. Updated according to WHMIS 2015. Globally Harmonized System (GHS)
<b>HMIS classification</b>	
Health	1*
Flammability	1
Physical hazard	0
PPE	X

N/A - Not Applicable, N/D - Not Determined.

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