

SDS no. PID2300  
Version 9  
Revision date 31/Jan/2017  
Supersedes date 18/Aug/2016



## Safety Data Sheet TRUVIS\*

### 1. Identification

#### 1.1 Product identifier

Product name TRUVIS\*  
Product code PID2300

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

Recommended Use Drilling fluid additive. Viscosifier.  
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) , Bethicia Prasek

#### 1.4 Emergency Telephone Number

Emergency telephone (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600  
Telephone Number - Emergency telephone number (24 Hour) Canada (English/French): +1 866 928 0789

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS - Classification

##### Health hazards

Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2

Environmental hazards Not classified

**Physical Hazards**

Combustible dust

**2.2 Label elements**



**Signal word**

DANGER

**Hazard statements**

H350i - May cause cancer by inhalation

H373 - May cause damage to organs through prolonged or repeated exposure

H232 - May form combustible dust concentrations in air

**Precautionary statements**

P201 - Obtain special instructions before use

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

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

P314 - Get medical advice/attention if you feel unwell

P240 - Ground/bond container and receiving equipment

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

P243 - Take precautionary measures against static discharge

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

**Hazards not otherwise classified**

None known

**Unknown acute toxicity**

Not applicable.

**3. Composition/information on Ingredients**

**3.1 Substances**

Chemical Name	CAS No	Weight-%
Aromatic amine treated mineral	Proprietary	60 - 100
Crystalline silica (impurity)	14808-60-7	< 3

**3.2 Mixtures**

Not applicable

**Comments**

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.

Crystalline silica is the most widely occurring of all minerals. The most common form of silica is sand. The International Agency for Research on Cancer (IARC) has designated crystalline silica in the form of quartz or cristobalite a Group 1 (carcinogenic to humans). This designation was based on an increased risk of lung cancer among crystalline silica exposed workers. IARC did note that carcinogenicity of crystalline silica in humans was not detected in all industrial circumstances studied. Further, carcinogenicity of crystalline silica may be dependent on inherent characteristics of the crystalline silica or external factors affecting its biological activity or distribution of polymorphs. (IARC Vol. 68, 1997, p. 41). The National Toxicology Program (NTP) classifies crystalline silica as "reasonably anticipated to cause cancer in humans" (6th Annual Report on Carcinogens, 1991). Long term inhalation of crystalline silica can also result in the lung disease, silicosis. Symptoms of this disease include coughing and shortness of breath. (NJ HSFS, January 1996) Percentages (concentrations) represented as a range are due to batch-to-batch variability.

## 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. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.
<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. 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

#### Main 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
---------------------------	-----------------------

## 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**

Harmful organic chemical fumes, Silicon oxide, Carbon oxides (COx), Nitrogen oxides (NOx), Hydrogen chloride gas.

**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. Suspended dust may present a dust explosion hazard. Avoid breathing dust; if exposed to high dust concentration, leave area immediately.

**6.2 Environmental precautions**

Do not allow material to contaminate ground water system.

**Environmental exposure controls**

Avoid release to the environment. 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**

Sweep up and shovel into suitable containers for disposal. Prevent dust cloud. 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**

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. Take precautionary measures against static discharges. Fine dust dispersed in air may ignite.

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

**Technical measures/precautions** Ensure adequate ventilation.

**Storage precautions** Keep container/package tightly closed and in a well-ventilated place. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking. Avoid contact with water and moist air - product is hygroscopic. Do not store and transport with oxidizers.

**8. Exposure controls/personal protection**

**8.1 Control parameters**

Component Information

Component	ACGIH TLV	OSHA PEL
Aromatic amine treated mineral ( 60 - 100 )	Not determined	Not determined
Crystalline silica (impurity) 14808-60-7 ( < 3 )	0.025 mg/m <sup>3</sup>	total dust respirable fraction

Crystalline silica (impurity)

OSHA - Final PELs - Table Z-3 Mineral Dusts

(30)/(%SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, total dust; (250)/(%SiO<sub>2</sub> + 5) mppcf TWA, respirable fraction; (10)/(%SiO<sub>2</sub> + 2) mg/m<sup>3</sup> TWA, respirable fraction

**8.2 Exposure controls**

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 measures to reduce exposure**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye protection**

Tightly fitting safety goggles.

**Hand protection**

Wear chemical resistant gloves such as nitrile or neoprene.

**Respiratory Protection**

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 particles of this product use at least a NIOSH-approved N95 half-mask disposable or re-useable particulate respirator. In work environments containing oil mist/aerosol use at least a NIOSH-approved P95 half-mask disposable or re-useable particulate respirator.

**Skin and body protection**

Wear suitable protective clothing and gloves, Eye wash and emergency shower must be available at the work place.

**Hygiene measures**

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>	Powder Dust
<b>Color</b>	Off-white
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		Not applicable
pH @ dilution		No information available
Melting / freezing point	No information available	
Boiling point/range	No information available	
Flash point	No information available	
Evaporation rate (BuAc =1)	Not applicable	

<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 sg	20 °C
<b>Bulk density</b>	560 kg/m <sup>3</sup> (34.9 lb/ft <sup>3</sup> )	
<b>Water solubility</b>	Insoluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Autoignition temperature</b>	190 °C / 374 °F	
<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>	Suspended dust may present a dust explosion hazard	
<b>Oxidizing properties</b>	No information available	
<b>9.2 Other information</b>		
<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	

## 10. Stability and reactivity

### 10.1 Reactivity

Dust may form explosive mixture in air.

### 10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3 Possibility of Hazardous Reactions

#### **Hazardous polymerization**

Not known.

### 10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with water and moist air - product is hygroscopic.

### 10.5 Incompatible materials

Oxidizing agents.

### 10.6 Hazardous decomposition products

See Section 5.2.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### **Acute toxicity**

##### **Inhalation**

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.

- Eye contact** Dust contact with the eyes can lead to mechanical irritation.
- Skin contact** Repeated exposure may cause skin dryness or cracking.
- Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Toxicology data for the components**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aromatic amine treated mineral	No data available	No data available	No data available
Crystalline silica (impurity)	= 500 mg/kg ( Rat )	No data available	No data available

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Aromatic amine treated mineral	No data available	No data available	No data available	No data available
Crystalline silica (impurity)	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

- Sensitization** Not classified.
- Mutagenic effects** No evidence of mutagenic properties.
- Carcinogenicity** May cause cancer. Crystalline silica dust is listed by IARC in Group 1 as known to cause lung cancer in humans, if inhaled.
- Reproductive toxicity** No evidence of toxicity to reproduction.
- Developmental toxicity** Not known to cause birth defects or have a deleterious effect on a developing fetus.
- Routes of exposure** Skin contact. Inhalation. Eye contact.
- Routes of entry** Inhalation.
- Specific target organ toxicity (single exposure)** Not classified
- Specific target organ toxicity (repeated exposure)** Category 2.
- Target organ effects** Lungs.
- Aspiration hazard** 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
Aromatic amine treated mineral	No information available	No information available	No information available
Crystalline silica (impurity)	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. (TDG)** Not regulated  
**UN/ID No. (ADR/RID/ADN/ADG)** Not regulated  
**UN No. (IMDG)** Not regulated



**UN No. (ICAO)** 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)**

**DOT Hazard class** Not regulated  
**TDG Hazard class** Not regulated  
**ADR/RID/ADN/ADG Hazard class** Not regulated  
**IMDG Hazard class** Not regulated  
**ICAO Hazard class/division** Not regulated

**14.4 Packing group**

**DOT Packing group** Not regulated  
**TDG Packing group** Not regulated  
**ADR/RID/ADN/ADG Packing group** Not regulated  
**IMDG Packing group** Not regulated  
**ICAO Packing group** Not regulated

**14.5 Environmental hazard**

Marine pollutant No

**14.6 Special precautions**

Not applicable

**15. Regulatory information**

**International inventories**

USA (TSCA)	Complies
Canada (DSL)	Complies
European Union (EINECS and ELINCS)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Does not Comply
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	Complies

**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
Aromatic amine treated mineral	N/A	N/A	N/A
Crystalline silica (impurity)	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.

**Crystalline silica (impurity)**  
Carcinogen

**Canadian Classification**

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

**16. Other information**

**Supersedes date** 18/Aug/2016  
**Revision date** 31/Jan/2017  
**Version** 9  
**This SDS has been revised in the following section(s)** 1, 8, 9, 15, 16. Updated according to WHMIS 2015.

**HMIS classification**

Health	1*
Flammability	1
Physical hazard	0
PPE	E

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

\*A mark of M-I L.L.C., a Schlumberger Company

**Disclaimer**

The information contained herein is considered in good faith as reliable of the date issued and is based upon on measurements, tests or data derived from supplier's own study or furnished by others. In providing this SDS information, Supplier makes no express or implied warranties as to the information or product; merchantability or fitness of purpose; any express or implied warranty; or non-infringement of intellectual property rights; and supplier assumes no responsibility for any direct, special or consequential damages, results obtained, or the activities of others. To the maximum extent permitted by law, supplier's warranty obligations and buyer's sole remedies are as stated in separate agreement between the parties.