

SDS no. PID13508
Version 2
Revision date 19/Nov/2018
Supersedes date None



Safety Data Sheet ALPINE DRILL BEADS* (FINE or COARSE)

1. Identification of the Substance/Preparation and of the Company/Undertaking

1.1 Product identifier

Product name ALPINE DRILL BEADS* (FINE or COARSE)
Product code PID13508

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 Serviços de Petróleo LTDA
Rua Internacional 500Cavaleiro – Macaé, RJ. CEP: 27.930-075
Telefone: +55 22 3311-7051

E-mail address MISDS@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



Reproductive toxicity	Category 2
-----------------------	------------

Environmental hazards Not classified

Physical Hazards

Combustible dust

2.2 Label elements



Signal word

WARNING

Hazard Statements

H361 - Suspected of damaging fertility or the unborn child
H232 - May form combustible dust concentrations in air

Precautionary Statements

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P243 - Take precautionary measures against static discharge
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Hazards not otherwise classified

None known

Unknown acute toxicity

Not applicable.

3. Composition/information on Ingredients

3.1 Substances

3.2 Mixtures

Not applicable

Chemical Name	CAS No	Weight-%
Styrene (impurity)	100-42-5	0.5 - 1.5

Comments

The exact percentage (concentration) of composition has been withheld as a trade secret



4. First Aid Measures

4.1 First aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if irritation persists.
Eye Contact	Promptly wash eyes with lots of water while lifting eye lids. Remove contact lenses, if worn. Get medical attention if any discomfort continues.

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

General advice The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

Symptoms

Inhalation	Please see Section 11. Toxicological Information for further information.
Ingestion	Please see Section 11. Toxicological Information for further information.
Skin contact	Please see Section 11. Toxicological Information for further information.
Eye contact	Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO₂), or foam.

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Unusual fire and explosion hazards

Suspended dust may present a dust explosion hazard.

Hazardous combustion products

Fire or high temperatures create:, Carbon oxides (COx).

5.3 Advice for firefighters

Special protective equipment for fire-fighters



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

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

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

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. 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 contact with skin and eyes. Avoid dust formation. Fine dust dispersed in air may ignite. Keep away from open flames, hot surfaces and sources of ignition. Material becomes slippery when wet. Use caution if wet.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions Ensure adequate ventilation. Keep airborne concentrations below exposure limits. Take precautionary measures against static discharges.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with: Strong oxidizing agents.

Packaging materials Use specially constructed containers only.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure limits

Control as an ACGIH particulate not otherwise specified (PNOS): 10 mg/m³ (Inhalable); 3 mg/m³ (Respirable) and an OSHA particulate not otherwise regulated (PNOR): 15 mg/m³ (Total); 5 mg/m³ (Respirable).



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)
Styrene (impurity)	20 ppm	100 ppm TWA 200 ppm C	20 ppm TWA	78 ppm TWA LT; 328 mg/m ³ TWA LT	50 ppm TWA VLE-PPT; 215 mg/m ³ TWA VLE-PPT

IDLH (Immediately Dangerous to Life or Health)

This product contains substance(s) 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)
Styrene (impurity) 100-42-5	700 ppm IDLH

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

Ensure adequate ventilation.

Personal protective equipment

Eye protection

Safety glasses with side-shields.

Hand protection

Use protective gloves made of: Neoprene Nitrile Frequent change is advisable

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, Eye wash and emergency shower must be available at the work place.

Hygiene Measures

Wash hands before eating, drinking or smoking, Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state

Beads

Appearance

No information available



Color White - Off-white
Odor Odorless
Odor threshold Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		
pH @ dilution		
Melting / freezing point	No information available	
Boiling point/range	No information available	
Flash point	n/a No information available	PMCC
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	1.10 - 1.13 sg	20 °C
Bulk density	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
log Pow	No information available	
Explosive properties	Not applicable	
Oxidizing properties	None known.	
9.2 Other information		
Pour point	No information available	
Molecular weight	No information available	
VOC content(%)	None	
Density	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

No specific reactivity hazards associated with this product.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Heat, flames and sparks. Protect from moisture. Avoid dust formation.

10.5 Incompatible materials



Strong 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 may cause shortness of breath, tightness of the chest, a sore throat and cough. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Eye contact

Dust may cause 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
Styrene (impurity)	= 1000 mg/kg (Rat)	No data available	= 11.7 mg/L (Rat) 4 h

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Styrene (impurity)	Group 2B; Monograph 82 [2002] 2B Group 2B; Monograph 60 [1994]	A4 Not Classifiable as a Human Carcinogen	Present	Reasonably Anticipated To Be A Human Carcinogen

Sensitization

Not classified.

Mutagenic effects

This substance has no evidence of mutagenic properties.

Carcinogenicity

No evidence of carcinogenic properties.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Developmental toxicity

No information available.

Routes of exposure

Inhalation. Skin contact. Eye contact.

Routes of entry

Inhalation.

Specific target organ toxicity - Single exposure

Not classified

Specific target organ toxicity - Repeated exposure

Not classified.

Aspiration hazard

Not applicable.



12. Ecological Information

12.1 Toxicity

Toxicity to algae

This product is not considered toxic to algae.

Toxicity to fish

This product is not considered toxic to fish.

Toxicity to daphnia and other aquatic invertebrates

This product is not considered toxic to invertebrates.

Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Styrene (impurity)	19.03 - 33.53 mg/L LC50 Lepomis macrochirus 96 h 6.75 - 14.5 mg/L LC50 Pimephales promelas 96 h 58.75 - 95.32 mg/L LC50 Poecilia reticulata 96 h 3.24 - 4.99 mg/L LC50 Pimephales promelas 96 h	= 1.4 mg/L EC50 Pseudokirchneriella subcapitata 72 h = 0.72 mg/L EC50 Pseudokirchneriella subcapitata 96 h 0.46 - 4.3 mg/L EC50 Pseudokirchneriella subcapitata 72 h 0.15 - 3.2 mg/L EC50 Pseudokirchneriella subcapitata 96 h	3.3 - 7.4 mg/L EC50 Daphnia magna 48 h

12.2 Persistence and degradability

Not readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

12.4 Mobility

Insoluble in water.

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.

Endocrine disruptor information

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
UN No. (DPC)	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
ANTT Hazard class	Not regulated
TDG Hazard class	Not regulated
ADR/RID/ADN/ADG Hazard class	Not regulated
IMDG/ANTAQ Hazard class	Not regulated
ICAO/ANAC Hazard class/division	Not regulated
DPC Hazard class	Not regulated

14.4 Packing group

DOT Packing group	Not regulated
ANTT Packing group	Not regulated
TDG Packing group	Not regulated
ADR/RID/ADN/ADG Packing group	Not regulated
IMDG/ANTAQ Packing group	Not regulated
ICAO/ANAC Packing group	Not regulated
DPC Packing group	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 SDS@slb.com for info regarding transport in Bulk.

15. Regulatory Information

International inventories

USA (TSCA)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies



New Zealand (NZIoC)

Complies

Europe - REACH

All products supplied from the European Economic Area (EEA) are compliant with the REACH Regulation EC 1907/2006. For products supplied from the EEA, Schlumberger and/or its suppliers have pre-registered and is registering all of the substances that it and/or its suppliers manufactures in or imports into the EEA that are subject to Title II of the REACH Regulation. All products supplied from outside the EEA are subject to REACH only if imported into the EEA. The importer of the products must comply with REACH for each imported substance. Contact REACH@slb.com for REACH information.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

Chemical Name	SARA 302 / TPQs	SARA 313	CERCLA RQ
Styrene (impurity)	N/A	0.1 %	1000 lb final RQ 454 kg final RQ

California Proposition 65**WARNING**

This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Chemical Name	California Proposition 65
Styrene (impurity) 100-42-5	Cancer

Canadian Classification

This product may not be distributed or used in Canada.

Brazilian Regulations**Brazil Regulation**

This SDS was prepared in accordance with Brazil law NBR 14725.

Federal Police

Not determined

Army

Not determined

ANVISA

Not Listed

MTE (NR 15)

No information available

16. Other Information

Revision date 19/Nov/2018

Version 2



This SDS has been revised in the following section(s) 1, 2, 8, 11, 15, 16

HMIS classification

Health	1*
Flammability	1
Physical hazard	0
PPE	X

*A mark of M-I L.L.C.

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.

This Document is Confidential and Proprietary. Unless Otherwise Marked, It is an Uncontrolled Copy.