**SDS no.** PID13503

Version 9

Revision date 08/Mar/2022 Supersedes date 07/Aug/2019



# Safety Data Sheet M-I WATE\*

## 1. Identification

#### 1.1 Product identifier

Product name M-I WATE

Product code PID13503

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

**Recommended Use**Weighting agent. 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

#### M-I SWACO, A Schlumberger Company

200 - 125, 9th Avenue SE Calgary, Alberta T2G 0P6, Canada Telephone: 1-780-962-8221

E-mail address SDS@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: +55 11 3197 5891

## 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** 

Not classified

#### 2.2 Label elements



#### **Hazard Statements**

H350 - May cause cancer

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

### **Precautionary Statements**

P201 - Obtain special instructions before use

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

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

P280 - Wear protective gloves, protective clothing, eye protection

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

P314 - Get medical attention if you feel unwell

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

#### Hazards not otherwise classified

None known

Unknown acute toxicity

Not applicable.

## 3. Composition/information on Ingredients

## 3.1 Substances

Chemical Name	CAS No	Weight-%
Barite	13462-86-7	60-100
Crystalline silica (impurity)	14808-60-7	1-5

#### 3.2 Mixtures

Not applicable

#### Comments

This product contains a small quantity of quartz, crystalline silica. Prolonged and repeated exposure to concentrations of crystalline silica exceeding the workplace exposure limit (WEL) may lead to chronic lung disease such as silicosis. 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

**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 symptoms occur.

Eye Contact Promptly wash eyes with lots of water while lifting eye lids. Remove contact lenses, if

present and easy to do. Continue rinsing. 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

Use extinguishing media appropriate for surrounding material.

### 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

None known.

#### **Hazardous combustion products**

Thermal decomposition can lead to release of irritating gases and vapors.

#### 5.3 Advice for firefighters



#### Special protective equipment and precautions 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. Do not breathe dust. Material becomes slippery when wet. Use caution if wet.

#### Advice for non-emergency responders

Evacuate non-essential personnel.

#### Advice for emergency responders

Evacuate personnel to safe areas. Use non-slip safety shoes in areas where spills or leaks can occur. Wear respiratory protection. Keep people away from and upwind of spill/leak.

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

### Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.

## 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. Do not breathe dust. Material becomes slippery when wet. Use caution if wet.

#### Hygiene measures

Use good work and personal hygiene practices to avoid exposure. When using do not smoke, eat or drink. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing.

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

**Technical measures/precautions** Ensure adequate ventilation. Keep airborne concentrations below exposure limits.

Storage precautions Keep containers tightly closed in a dry, cool and well-ventilated place. Avoid wet and humid

conditions.



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Packaging materials

Use specially constructed containers only.

## 8. Exposure Controls/Personal Protection

#### 8.1 Control parameters

Component Information

Chemical Name	ACGIH TLV	OSHA PEL	Argentina -	Brazil - Occupational	Mexico -
			Occupational	Exposure Limits -	Occupational
			Exposure Limits -	TWAs (LTs)	Exposure Limits -
			TWAs (CMPs)		TWAs (LMPE-PPTs)
Barite	Not determined	Not determined	Not determined	Not determined	Not determined
Crystalline silica (impurity)	0.025 mg/m <sup>3</sup>	50 μg/m³ TWA	0.05 mg/m <sup>3</sup> TWA	0.025 mg/m <sup>3</sup> TWA LT	0.025 mg/m <sup>3</sup> TWA
		respirable fraction		(respirable particulate	VLE-PPT (respirable
				matter)	fraction)

Crystalline silica (impurity)

OSHA - Final PELs - Table Z-3 Mineral Dusts

(250)/(%SiO2 + 5) mppcf TWA, respirable fraction; (10)/(%SiO2 + 2) mg/m3 TWA, respirable fraction

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

Immediately Dangerous to Life or Health (IDLH) is established 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)
Barite 13462-86-7	Not applicable
Crystalline silica (impurity) 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.

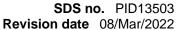
## **Engineering Controls**

Ensure adequate ventilation. Mechanical ventilation or local exhaust ventilation is required.

## Personal protective equipment

Eye protection Hand protection Respiratory Protection Tightly fitting safety goggles.

Impervious gloves made of: Neoprene Nitrile PVC Frequent change is advisable 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 stateSolidAppearancePowder DustColorTan - GrayOdorOdorlessOdor thresholdNot applicable

Property Values Remarks

**pH** Not applicable

pH @ dilution

Melting point

Boiling point/range

No information available

No information available

No information available

Flash point
Evaporation rate (BuAc =1)
Flammability

Not applicable
Not applicable

**Explosion limits:** 

Upper explosion limit
Lower explosion limit
No information available
No information available

Vapor pressureNot applicableRelative Vapor DensityNot applicableSpecific gravity4.10 - 4.25Bulk density1920 - 2400 kg/m³

**Bulk density** 1920 - 2400 kg/m³ **Water solubility** Insoluble in water

Solubility in other solvents
Autoignition temperature
Decomposition temperature
Kinematic viscosity
Dynamic viscosity
Partition Coefficient

No information available
No information available
No information available
No information available

(n-octanol/water)

**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 and/or Relative 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

@ 20 °C



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

Avoid dust formation. Avoid wet and humid conditions.

## 10.5 Incompatible materials

No materials to be especially mentioned.

### 10.6 Hazardous decomposition products

See Section 5.2.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity** 

Product information This product contains a small quantity of quartz, crystalline silica. Prolonged and repeated

exposure to concentrations of crystalline silica exceeding the workplace exposure limit

(WEL) may lead to chronic lung disease such as silicosis.

**Inhalation** May cause cancer. May cause damage to organs through prolonged or repeated exposure.

**Eye contact** Dust may cause mechanical irritation.

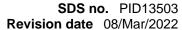
**Skin contact** Prolonged contact may cause redness and irritation.

**Ingestion** Ingestion may cause stomach discomfort.

Toxicology data for the components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Barite	15015 mg/kg (rat)	No data available	No data available
Crystalline silica (impurity)	No data available	No data available	No data available

Chemical Name	IARC Group 1 or 2	ACGIH - Carcinogens	OSHA listed carcinogens	NTP
Barite	No data available	No data available	No data available	No data available
	Group 1; Monograph 100C [2012] Monograph 100C [2012] (listed under Crystalline silica inhaled in the form of	Carcinogen	Present	Known Human Carcinogen





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quartz or cristobalite from		
occupational sources);		
Monograph 68 [1997]		
Group 1; Monograph 68		
[1997]		

Delayed and immediate effects and chronic effects from short and long term exposure

**Sensitization** This product does not contain any components suspected to be sensitizing.

**Mutagenic effects**This product does not contain any known or suspected mutagens.

Carcinogenicity Crystalline silica dust is listed by IARC in Group 1 as known to cause lung cancer in

humans, if inhaled.

**Reproductive toxicity**This product does not contain any known or suspected reproductive hazards.

**Developmental toxicity**Not known to cause birth defects or have a deleterious effect on a developing fetus.

Routes of Exposure Inhalation.

Routes of entry Inhalation.

Specific target organ toxicity -

Single exposure

Specific target organ toxicity -

Repeated exposure

Not classified

Category 2.

Target organ effects Respiratory system. Lungs.

Aspiration hazard Not classified.

## 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.

Toxicology data for the components

Toxioology data for the compe	1101110		
Chemical Name	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Barite	No information available	No information available	No information available
Crystalline silica (impurity)	LC50 Danio rerio (zebra fish) : >	EC50: > 1000 mg/l 72h	LC50 Daphnia manga (Water flea):
	10000 mg/l 96h		> 10000 mg/l 24h

## 12.2 Persistence and degradability



Product is not biodegradable.

#### 12.3 Bioaccumulative potential

Does not bioaccumulate.

#### 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.

## 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)

UN No. (IMDG/ANTAQ)

UN No. (ICAO/ANAC)

UN No. (DPC)

Not regulated
Not regulated
Not regulated
Not regulated

## 14.2. UN proper shipping name

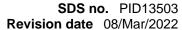
The product is not covered by international regulation on the transport of dangerous goods

### 14.3 Hazard class(es)

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

14.4 Packing group

DOT Packing group Not regulated





ANTT Packing group
TDG Packing group
ADR/RID/ADN/ADG Packing group
IMDG/ANTAQ Packing group
ICAO/ANAC Packing group
DPC Packing group
Not regulated
Not regulated
Not regulated
Not regulated
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 **Philippines (PICCS)** Complies Complies Japan (ENCS) Complies China (IECSC) Complies Australia (AICS) Korean (KECL) Complies Complies New Zealand (NZIoC)

#### **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.

#### IMPORTS, Canada

No import volume restrictions.

#### U.S. Federal and State Regulations

## 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
Barite	N/A	N/A	N/A
Crystalline silica (impurity)	N/A	N/A	N/A

## **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
Crystalline silica (impurity)	Carcinogen
14808-60-7	

#### **Canadian Classification**

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

Brazil Regulation This SDS was prepared in accordance with Brazil law ABNT NBR 14725:2014

Federal Police Not determined

Army Not determined

ANVISA Not determined

MTE (NR 15) No information available

## 16. Other Information

**Supersedes date** 07/Aug/2019

Revision date 08/Mar/2022

Version 9

This SDS has been revised in the

following section(s)

All sections. No changes with regard to classification have been made.

## **HMIS** classification

Health	1'
Flammability	0
Physical hazard	0
PPE	E

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

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