

## SAFETY DATA SHEET

### FLO-CLEAN™ MD

Revision Date: 16-Jun-2015

Revision Number: 11

#### 1. Product Identifier & Identity for the Chemical

**Statement of Hazardous Nature** Non-Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Non-Dangerous Goods according to the criteria of ADG.

##### 1.1. Product Identifier

**Product Name** FLO-CLEAN™ MD

##### Other means of Identification

**Synonyms:** None  
**Product Code:** HM003651

##### Recommended use of the chemical and restrictions on use

**Recommended Use** Shale Inhibitor  
**Uses Advised Against** No information available

##### Supplier's name, address and phone number

**Manufacturer/Supplier** Halliburton Australia Pty. Ltd.  
15 Marriott Road  
Jandakot  
WA 6164  
Australia  
  
ACN Number: 009 000 775  
Telephone Number: + 61 1 800 686 951  
Fax Number: 61 (08) 9455 5300  
**E-Mail address:** fdunexchem@halliburton.com

##### Emergency phone number

+ 61 1 800 686 951

##### **Australian Poisons Information Centre**

24 Hour Service: - 13 11 26  
Police or Fire Brigade: - 000 (exchange): - 1100

#### 2. Hazard Identification

**Statement of Hazardous Nature** Non-Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Non-Dangerous Goods according to the criteria of ADG.

##### Classification of the hazardous chemical

Not classified

##### Label elements, including precautionary statements

##### **Hazard Pictograms**

**Signal Word** Not Hazardous

**Hazard Statements** Not Classified

**Precautionary Statements**

**Prevention** None

**Response** None

**Storage** None

**Disposal** None

**Contains  
Substances**

Contains no hazardous substances in concentrations above cut-off values according to the competent authority

**CAS Number**  
NA

**Other hazards which do not result in classification**

None known

**Australia Classification**

*For the full text of the H-phrases mentioned in this Section, see Section 16*

**Classification** Not Classified

**Risk Phrases** None

### 3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	60 - 100%	Not Applicable

### 4. First aid measures

**Description of necessary first aid measures**

**Inhalation** Under normal conditions, first aid procedures are not required.  
**Eyes** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.  
**Skin** Wash with soap and water.  
**Ingestion** Under normal conditions, first aid procedures are not required.

**Symptoms caused by exposure**

No significant hazards expected.

**Medical Attention and Special Treatment**

**Notes to Physician** Treat symptomatically

### 5. Fire Fighting Measures

**Suitable extinguishing equipment**

**Suitable Extinguishing Media**

All standard fire fighting media

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

None known.

**Specific hazards arising from the chemical**

**Special Exposure Hazards**

Not applicable.

#### Special protective equipment and precautions for fire fighters

##### **Special Protective Equipment for Fire-Fighters**

Not applicable.

## 6. Accidental release measures

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

Use appropriate protective equipment.

### 6.2. Environmental precautions

None known.

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

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

## 7. Handling and storage

### 7.1. Precautions for Safe Handling

#### **Handling Precautions**

Avoid contact with eyes, skin, or clothing.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

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

#### **Storage Information**

Store in a cool well ventilated area. Keep container closed when not in use. Store in a dry location. To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Product has a shelf life of 36 months.

#### **Other Guidelines**

No information available

## 8. Exposure Controls/Personal Protection

### Control parameters - exposure standards, biological monitoring

#### **Exposure Limits**

Substances	CAS Number	Australia NOHSC	ACGIH TLV-TWA
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable	Not applicable

### Appropriate engineering controls

#### **Engineering Controls**

None known.

### Personal protective equipment (PPE)

#### **Respiratory Protection**

Not normally necessary.

#### **Hand Protection**

Impervious rubber gloves.

#### **Skin Protection**

Normal work coveralls.

#### **Eye Protection**

Wear safety glasses or goggles to protect against exposure.

#### **Other Precautions**

None known.

#### **Environmental Exposure Controls**

No information available

## 9. Physical and Chemical Properties

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

**Physical State:** Liquid

**Color:** Clear colorless

**Odor:** Odorless

**Odor Threshold:** No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
<b>pH:</b>	9-9.5
<b>Freezing Point/Range</b>	-1.1 °C
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	104 °C / 220 °F
<b>Flash Point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	1.01
<b>Water Solubility</b>	Miscible with water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

**9.2. Other information**

**VOC Content (%)** No data available

## 10. Stability and Reactivity

**10.1. Reactivity**

Not expected to be reactive.

**10.2. Chemical Stability**

Stable

**10.3. Possibility of Hazardous Reactions**

Will Not Occur

**10.4. Conditions to Avoid**

None anticipated

**10.5. Incompatible Materials**

Strong oxidizers.

**10.6. Hazardous Decomposition Products**

Carbon monoxide and carbon dioxide. Ammonia. Oxides of nitrogen.

## 11. Toxicological Information

**Information on routes of exposure**

**Principle Route of Exposure** Eye or skin contact, inhalation.

**Symptoms related to exposure****Most Important Symptoms/Effects**

No significant hazards expected.

**Numerical measures of toxicity****Toxicology data for the components**

<b>Substances</b>	<b>CAS Number</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No data available	No data available	No data available

**Immediate, delayed and chronic health effects from exposure**

**Inhalation** None known.

**Eye Contact** None known.  
**Skin Contact** None known.  
**Ingestion** None known.

**Chronic Effects/Carcinogenicity** No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

**Exposure Levels**

No data available

**Interactive effects**

None known.

**Data limitations**

No data available

Substances	CAS Number	Skin corrosion/irritation
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable.

Substances	CAS Number	Eye damage/irritation
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable.

Substances	CAS Number	Skin Sensitization
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	Respiratory Sensitization
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	Mutagenic Effects
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	Carcinogenic Effects
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	Reproductive toxicity
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	STOT - single exposure
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	STOT - repeated exposure
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

Substances	CAS Number	Aspiration hazard
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	Not applicable

## 12. Ecological Information

### Ecotoxicity

#### Product Ecotoxicity Data

No data available

#### Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No information available	No information available	No information available	No information available

### 12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No information available

### 12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No information available

### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Contains no hazardous substances in concentrations above cut-off values according to the competent authority	NA	No information available

### 12.6. Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 13. Disposal Considerations

**Safe handling and disposal methods**

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

**Disposal of any contaminated packaging**

Follow all applicable national or local regulations.

**Environmental regulations**

Not applicable

**14. Transport Information****Transportation Information**

<b>UN Number:</b>	Not restricted
<b>UN Proper Shipping Name:</b>	Not restricted
<b>Transport Hazard Class(es):</b>	Not applicable
<b>Packing Group:</b>	Not applicable
<b>Environmental Hazards:</b>	Not applicable

**Special precautions during transport**

None

**HazChem Code**

None Allocated

**15. Regulatory Information****Safety, health and environmental regulations specific for the product****International Inventories**

<b>Australian AICS Inventory</b>	All components listed on inventory or are exempt.
<b>New Zealand Inventory of Chemicals</b>	All components listed on inventory or are exempt.
<b>EINECS Inventory</b>	This product, and all its components, complies with EINECS
<b>US TSCA Inventory</b>	All components listed on inventory or are exempt.
<b>Canadian DSL Inventory</b>	All components listed on inventory or are exempt.

**Poisons Schedule number**

None Allocated

**16. Other information****Date of preparation or review**

**Revision Date:** 16-Jun-2015

**Revision Note**

SDS sections updated: 2

**Full text of R-phrases referred to under Sections 2 and 3**

None

**Full text of H-Statements referred to under sections 2 and 3**

None

**Additional information**

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

**Key abbreviations or acronyms used**

bw – body weight CAS – Chemical Abstracts Service EC50 – Effective Concentration 50% LC50 – Lethal Concentration 50% LD50 – Lethal Dose 50% LL50 – Lethal Loading 50% mg/kg – milligram/kilogram mg/L – milligram/liter NOEC – No Observed Effect Concentration OEL – Occupational Exposure Limit PBT – Persistent Bioaccumulative and Toxic ppm – parts per million STEL – Short Term Exposure Limit TWA – Time-Weighted Average vPvB – very Persistent and very Bioaccumulative h - hour mg/m<sup>3</sup> - milligram/cubic meter mm - millimeter mmHg - millimeter mercury w/w - weight/weight d - day

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

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**End of Safety Data Sheet**