

## SAFETY DATA SHEET

### DCA-16002

Revision Date: 01-Oct-2015

Revision Number: 12

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

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

##### 1.1. Product Identifier

**Product Name** DCA-16002

##### Other means of Identification

**Synonyms:** None  
**Product Code:** HM007656

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

**Recommended Use** Clay Stabilization Agent  
**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** Hazardous according to the criteria of the 3rd Revised Edition of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Dangerous Goods according to the criteria of ADG.

##### Classification of the hazardous chemical

Acute Aquatic Toxicity	Category 1 - H400
Chronic Aquatic Toxicity	Category 1 - H410

##### Label elements, including precautionary statements

##### **Hazard Pictograms**



<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects
<b>Precautionary Statements</b>	
<b>Prevention</b>	P273 - Avoid release to the environment
<b>Response</b>	P391 - Collect spillage
<b>Storage</b>	None
<b>Disposal</b>	P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

<b>Contains Substances</b>	<b>CAS Number</b>
Polydimethyl diallyl ammonium chloride	26062-79-3

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

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).  
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**Australia Classification**

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

**Classification** N - Dangerous For The Environment.

**Risk Phrases**

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Polydimethyl diallyl ammonium chloride	26062-79-3	30 - 60%	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

### 4. First aid measures

**Description of necessary first aid measures**

<b>Inhalation</b>	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
<b>Eyes</b>	In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
<b>Skin</b>	Wash with soap and water. Get medical attention if irritation persists.
<b>Ingestion</b>	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical

attention.

**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**

Decomposition in fire may produce harmful gases.

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

**Special Protective Equipment for Fire-Fighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

## 6. Accidental release measures

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

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

**6.2. Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**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. Avoid breathing vapors. Avoid breathing mist. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

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

**Storage Information**

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 24 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
Polydimethyl diallyl ammonium chloride	26062-79-3	Not applicable	Not applicable

**Appropriate engineering controls**

**Engineering Controls** Use in a well ventilated area.

**Personal protective equipment (PPE)**

**Respiratory Protection** If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.  
Not normally needed. But if significant exposures are possible then the following respirator is recommended:  
Dust/mist respirator. (N95, P2/P3)

**Hand Protection** Impervious rubber gloves.

**Skin Protection** Normal work coveralls.

**Eye Protection** Chemical goggles; also wear a face shield if splashing hazard exists.

**Other Precautions** None known.

**Environmental Exposure Controls** Do not allow material to contaminate ground water system

## 9. Physical and Chemical Properties

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

<b>Physical State:</b> Liquid	<b>Color:</b> Yellow to brown
<b>Odor:</b> Sweet	<b>Odor Threshold:</b> No information available

<u>Property</u>	<u>Values</u>
Remarks/ - Method	
<b>pH:</b>	6-9
<b>Freezing Point/Range</b>	-12 °C
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Vapor Pressure</b>	0.5
<b>Vapor Density</b>	1
<b>Specific Gravity</b>	1.09
<b>Water Solubility</b>	Soluble in 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**

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

## 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

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polydimethyl diallyl ammonium chloride	26062-79-3	3093 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rat) (similar substance)	No data available

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

**Inhalation** May cause mild respiratory irritation.  
**Eye Contact** May cause mild eye irritation.  
**Skin Contact** May cause mild skin irritation.  
**Ingestion** Irritation of the mouth, throat, and stomach.

**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
Polydimethyl diallyl ammonium chloride	26062-79-3	Non-irritating to the skin (Rabbit) (similar substances)

Substances	CAS Number	Eye damage/irritation
Polydimethyl diallyl ammonium chloride	26062-79-3	Non-irritating to the eye (Rabbit) (similar substances)

Substances	CAS Number	Skin Sensitization
Polydimethyl diallyl ammonium chloride	26062-79-3	Did not cause sensitization on laboratory animals (mouse) (similar substances)

Substances	CAS Number	Respiratory Sensitization
Polydimethyl diallyl ammonium chloride	26062-79-3	No information available

Substances	CAS Number	Mutagenic Effects
Polydimethyl diallyl ammonium chloride	26062-79-3	In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects (similar substances)

Substances	CAS Number	Carcinogenic Effects
Polydimethyl diallyl ammonium chloride	26062-79-3	No information available.

Substances	CAS Number	Reproductive toxicity

Polydimethyl diallyl ammonium chloride	26062-79-3	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
<b>Substances</b>	<b>CAS Number</b>	<b>STOT - single exposure</b>
Polydimethyl diallyl ammonium chloride	26062-79-3	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
<b>Substances</b>	<b>CAS Number</b>	<b>STOT - repeated exposure</b>
Polydimethyl diallyl ammonium chloride	26062-79-3	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
<b>Substances</b>	<b>CAS Number</b>	<b>Aspiration hazard</b>
Polydimethyl diallyl ammonium chloride	26062-79-3	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
Polydimethyl diallyl ammonium chloride	26062-79-3	ErC50 (72h) 0.07 mg/L (Skeletonema costatum) NOEC (72h) 0.03 mg/L (Skeletonema costatum)	LC50 (96h) >0.07 mg/L (Scophthalmus maximus)	No information available	EC50 (48h) 1475.78 mg/L (Acartia tonsa)

### 12.2. Persistence and degradability

Not readily biodegradable

Substances	CAS Number	Persistence and Degradability
Polydimethyl diallyl ammonium chloride	26062-79-3	Not readily biodegradable

### 12.3. Bioaccumulative potential

Does not bioaccumulate

Substances	CAS Number	Log Pow
Polydimethyl diallyl ammonium chloride	26062-79-3	< 10

### 12.4. Mobility in soil

Substances	CAS Number	Mobility
Polydimethyl diallyl ammonium chloride	26062-79-3	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**

**UN Number:** UN3082  
**UN Proper Shipping Name:** Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Polydimethyl diallyl ammonium chloride)  
**Transport Hazard Class(es):** 9  
**Packing Group:** III  
**Environmental Hazards:** Marine Pollutant

**Special precautions during transport**

None

**HazChem Code**

None Allocated

## 15. Regulatory Information

**Safety, health and environmental regulations specific for the product****International Inventories**

**Australian AICS Inventory** All components listed on inventory or are exempt.

**New Zealand Inventory of Chemicals** All components listed on inventory or are exempt.

**EINECS Inventory** This product, and all its components, complies with EINECS

**US TSCA Inventory** All components listed on inventory or are exempt.

**Canadian DSL Inventory** All components listed on inventory or are exempt.

**Poisons Schedule number**

None Allocated

## 16. Other information

**Date of preparation or review**

**Revision Date:** 01-Oct-2015

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

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

**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**

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

**End of Safety Data Sheet**