

## MATERIAL SAFETY DATA SHEET

**Product Trade Name:** DCA-19001

**Revision Date:** 05-Mar-2014

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Statement of Hazardous Nature** Hazardous according to the criteria of NOHSC, Non-Dangerous Goods according to the criteria of ADG.

**Manufacturer/Supplier** Halliburton Australia Pty. Ltd.  
15 Marriott Road  
Jandakot  
WA 6164  
Australia

ACN Number: 009 000 775  
Telephone Number: 61 (08) 9455 8300  
Fax Number: 61 (08) 9455 5300

**Product Emergency Telephone**

Australia: 08-64244950  
Papua New Guinea: 05 1 281 575 5000  
NewZealand: 06-7559274

**Fire, Police & Ambulance - Emergency Telephone**

Australia: 000  
Papua New Guinea: 000  
New Zealand: 111

### Identification of Substances or Preparation

**Product Trade Name:** DCA-19001  
**Synonyms:** None  
**Chemical Family:** Mineral  
**UN Number:** None  
**Dangerous Goods Class:** None  
**Subsidiary Risk:** None  
**Hazchem Code:** None Allocated  
**Poisons Schedule:** S5  
**Application:** Crosslinker

**Prepared By** Chemical Compliance  
Telephone: 1-580-251-4335  
e-mail: fdunexchem@halliburton.com

### 2. HAZARDS IDENTIFICATION

**Statement of Hazardous Nature** Hazardous according to the criteria of NOHSC, Non-Dangerous Goods according to the criteria of ADG.

**Hazard Overview** May cause eye, skin, and respiratory irritation. May be harmful if swallowed.  
Potential reproductive hazard.

**Classification** Xn - Harmful.

**Risk Phrases** R60 May impair fertility.  
R61 May cause harm to the unborn child.

**Safety Phrases** S36/37 Wear suitable protective clothing and gloves.

**HSNO Classification** 6.1E (Oral) Acutely Toxic Substances  
6.4A Irritating to the eye  
6.8B Human reproductive or developmental toxicants  
9.1D Slightly harmful in the aquatic environment

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	Australia NOHSC	New Zealand WES	ACGIH TLV-TWA
Disodium octaborate tetrahydrate	12008-41-2	60 - 100%	Not applicable	Not applicable	2 mg/m <sup>3</sup>

**Non-Hazardous Substance to Total of 100%**

### 4. FIRST AID MEASURES

**Inhalation** If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**Skin** Wash with soap and water. Get medical attention if irritation persists.

**Eyes** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Ingestion** Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

**Notes to Physician** Not Applicable

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media**  
Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which must not be used for safety reasons**  
None known.

**Special Exposure Hazards** Not applicable.

**Special Protective Equipment for Fire-Fighters** Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautionary Measures</b>	Use appropriate protective equipment. Avoid creating and breathing dust.
<b>Environmental Precautionary Measures</b>	None known.
<b>Procedure for Cleaning / Absorption</b>	Scoop up and remove.

## 7. HANDLING AND STORAGE

<b>Handling Precautions</b>	Avoid creating or inhaling dust.
<b>Storage Information</b>	Store in a cool, dry location. Product has a shelf life of 60 months.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls</b>	Use in a well ventilated area.
<b>Respiratory Protection</b>	Not normally needed. But if significant exposures are possible then the following respirator is recommended: Dust/mist respirator. (N95, P2/P3)
<b>Hand Protection</b>	Normal work gloves.
<b>Skin Protection</b>	Normal work coveralls.
<b>Eye Protection</b>	Dust proof goggles.
<b>Other Precautions</b>	None known.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>pH:</b>	7.3
<b>Specific Gravity @ 20 C (Water=1):</b>	1.7
<b>Density @ 20 C (kg/l):</b>	Not Determined
<b>Bulk Density @ 20 C (kg/M3):</b>	Not Determined
<b>Boiling Point/Range (C):</b>	Not Determined
<b>Freezing Point/Range (C):</b>	Not Determined
<b>Pour Point/Range (C):</b>	Not Determined
<b>Flash Point/Range (C):</b>	Not Determined
<b>Flash Point Method:</b>	Not Determined
<b>Autoignition Temperature (C):</b>	Not Determined
<b>Flammability Limits in Air - Lower (g/m<sup>3</sup>):</b>	Not Determined
<b>Flammability Limits in Air - Lower (%):</b>	Not Determined
<b>Flammability Limits in Air - Upper (g/m<sup>3</sup>):</b>	Not Determined
<b>Flammability Limits in Air - Upper (%):</b>	Not Determined
<b>Vapor Pressure @ 20 C (mmHg):</b>	Not Determined
<b>Vapor Density (Air=1):</b>	Not Determined
<b>Percent Volatiles:</b>	Not Determined
<b>Evaporation Rate (Butyl Acetate=1):</b>	Not Determined
<b>Solubility in Water (g/100ml):</b>	9.5
<b>Solubility in Solvents (g/100ml):</b>	Not Determined
<b>VOCs (g/l):</b>	Not Determined
<b>Viscosity, Dynamic @ 20 C (centipoise):</b>	Not Determined

Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined
Decomposition Temperature (C):	Not Determined

## 10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	None known.
Incompatibility (Materials to Avoid)	None known.
Hazardous Decomposition Products	None known.
Additional Guidelines	Not Applicable

## 11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

### Symptoms related to exposure

#### Acute Toxicity

Inhalation	May cause respiratory irritation.
Eye Contact	May cause mild eye irritation.
Skin Contact	May cause mild skin irritation.
Ingestion	May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity.

LD50 Oral: 2000 mg/kg; (rat)

### Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Disodium octaborate tetrahydrate	12008-41-2	2 g/kg (Rat) 3450 mg/kg (Rat) 4080 mg/kg (Rat) 2550 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.03 mg/L (Rat) 5h > 2.01 mg/L (Rat) 4h (saturation)

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological Information

#### Ecotoxicity Product

Acute Fish Toxicity:	Not determined
Acute Crustaceans Toxicity:	Not determined
Acute Algae Toxicity:	Not determined

#### Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates

Disodium octaborate tetrahydrate	12008-41-2	EC50(3d): 52.5 mg/L (growth rate) (Pseudokirchnerella subcapitata) (Similar substance) EC50(72h): 66 mg/L (growth rate) (Phaeodactylum tricornutum) (Similar substance)	LC50(96h): 74 mg/L (Limanda limanda) (Similar substance) LC50(96h): 280 mg/L (Gila elegans) LC50(96h): 447 mg/L (Oncorhynchus kisutch) NOEC(32d): 11.2 mg/L (Pimephales promelas) (Similar substance) NOEC(34d): 5.6 mg/L (Danio rerio) (Similar substance)	EC50(3h): > 175 mg/L (activated sludge)	LC50(96h): 25.05 - 80.6 mg/L (Litopenaeus vannamei) (Similar substance) LC50(48h): 133 mg/L (Daphnia magna) (Similar substance) NOEC(28d): 32 mg/L (Chironomus riparius) (Similar substance) NOEC(14d): 18 mg/L (Daphnia magna) (Similar substance)
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### 12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

No information available

Substances	Log Pow
Disodium octaborate tetrahydrate	BCF 121 L/kg (filamentous algae) BAF 23 L/kg (plankton) BAF 21 L/kg (Chironomids) BAF 23 L/kg (amphipods) BAF 13 L/kg (crayfish) BAF 8 L/kg (bluegill and largemouth bass) (Similar substance)

### 12.4 Mobility in soil

No information available

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

**Disposal Method** Bury in a licensed landfill according to federal, state, and local regulations.

**Contaminated Packaging** Follow all applicable national or local regulations.

## 14. TRANSPORT INFORMATION

### Land Transportation

#### ADR

Not restricted

### Air Transportation

#### ICAO/IATA

Not restricted

### Sea Transportation

#### IMDG

Not restricted

### Other Transportation Information

**Labels:** None

## 15. REGULATORY INFORMATION

### Chemical 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.  
**US TSCA Inventory** All components listed on inventory or are exempt.  
**EINECS Inventory** This product, and all its components, complies with EINECS

**Classification** Xn - Harmful.

**Risk Phrases** R60 May impair fertility.  
R61 May cause harm to the unborn child.

### Safety Phrases

S36/37 Wear suitable protective clothing and gloves.

## 16. OTHER INFORMATION

**The following sections have been revised since the last issue of this SDS**  
Not applicable

### Contact

**Australian Poisons Information Centre**  
24 Hour Service: - 13 11 26  
Police or Fire Brigade: - 000 (exchange): - 1100

**New Zealand National Poisons Centre**  
0800 764 766

**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 Compliance at 1-580-251-4335.

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\*\*\*END OF MSDS\*\*\*