

## SAFETY DATA SHEET

### ALDACIDE® G ANTIMICROBIAL

Revision Date: 06-Apr-2021

Revision Number: 11

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

**Statement of Hazardous Nature** Hazardous according to the criteria of the 7th 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** ALDACIDE® G ANTIMICROBIAL

##### Other means of Identification

**Synonyms** None

**Hazardous Material Number:** HB003462

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

**Recommended Use** Biocide

**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

Global Incident Response Access Code: 334305

Contract Number: 14012

##### **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 7th 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 Oral Toxicity	Category 4 - H302
Acute inhalation toxicity - vapor	Category 3 - H331
Skin Corrosion/Irritation	Category 1 - H314
Serious Eye Damage/Irritation	Category 1 - H318
Respiratory Sensitization	Category 1 - H334
Skin Sensitization	Category 1 - H317
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335
Acute Aquatic Toxicity	Category 1 - H400

Chronic Aquatic Toxicity

Category 3 - H412

**Label elements, including precautionary statements****Hazard Pictograms****Signal Word**

DANGER

**Hazard Statements:**

H302 - Harmful if swallowed  
 H314 - Causes severe skin burns and eye damage  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H331 - Toxic if inhaled  
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 - May cause respiratory irritation  
 H400 - Very toxic to aquatic life  
 H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements****Prevention**

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  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P273 - Avoid release to the environment  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P281 - Use personal protective equipment as required  
 P285 - In case of inadequate ventilation wear respiratory protection

**Response**

P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P363 - Wash contaminated clothing before reuse  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P391 - Collect spillage

**Storage**

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up

**Disposal**

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

**Contains****Substances**

Glutaraldehyde

**CAS Number**

111-30-8

**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).

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

### 3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - Australia
Glutaraldehyde	111-30-8	10 - 30%	Acute Tox. 3 (H301) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Corr. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)

### 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>	Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.
<b>Skin</b>	In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

#### Symptoms caused by exposure

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause respiratory irritation. Harmful if swallowed. Toxic if inhaled.

#### Medical Attention and Special Treatment

**Notes to Physician** Treat symptomatically

### 5. Fire Fighting Measures

#### Suitable extinguishing equipment

#### **Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

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

None known.

#### Specific hazards arising from the chemical

#### **Special exposure hazards in a fire**

Decomposition in fire may produce harmful gases.

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

#### **Special protective equipment for firefighters**

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. Ensure adequate ventilation. Avoid breathing vapors. Avoid contact with skin, eyes and clothing. Evacuate all persons from the area. Use only competent persons for cleanup.

**6.2. Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

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

Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. Handling and storage

**7.1. Precautions for safe handling****Handling Precautions**

Use appropriate protective equipment. Ensure adequate ventilation. Avoid breathing vapors. Avoid breathing mist. Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse.

**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 acids. Store away from alkalis. Store in a well ventilated area. Keep container closed when not in use. Store locked up. 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
Glutaraldehyde	111-30-8	Not applicable	Ceiling: 0.05 ppm

**Appropriate engineering controls****Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation. If vapors are strong enough to be irritating to the nose or eyes, the TLV is probably being exceeded and special ventilation or respiratory protection maybe required.

**Personal protective equipment (PPE)****Personal Protective Equipment**

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

**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. Organic vapor respirator.

**Hand Protection**

Impervious gloves Manufacturer's directions for use should be observed because of great diversity of types.

**Skin Protection**

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

**Eye Protection**

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

**Other Precautions**

Eyewash fountains and safety showers must be easily accessible.

**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**

**Physical State:** Liquid  
**Odor:** Sharp  
**Color:** Clear light yellow  
**Odor Threshold:** No information available

Property	Values
Remarks/ - Method	
<b>pH:</b>	3.1-4.5
<b>Freezing Point / Range</b>	(-5) - (-10) °C
<b>Melting Point / Range</b>	No data available
<b>Pour Point / Range</b>	No data available
<b>Boiling Point / Range</b>	100.5 °C / 213 °F
<b>Flash Point</b>	No data available
<b>Evaporation rate</b>	0.9
<b>Vapor Pressure</b>	0.2 mmHg
<b>Vapor Density</b>	0.8
<b>Specific Gravity</b>	1.064
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	-0.333
<b>Autoignition Temperature</b>	> 275 °C / > 527 °F
<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**

Keep away from heat, sparks and flame.

**10.5. Incompatible materials**

Strong acids. Strong alkalis.

**10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

**11. Toxicological Information****Information on routes of exposure**

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

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

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause respiratory irritation. Harmful if swallowed. Toxic if inhaled.

**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glutaraldehyde	111-30-8	50 mg/kg (Guinea Pig)	560 µL/kg (Rabbit)	0.28-0.5 mg/L (Rat) 4h

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

<b>Inhalation</b>	Toxic if inhaled. Causes severe respiratory irritation. May cause allergic respiratory reaction. Inhalation of vapors may result in skin sensitization.
<b>Eye Contact</b>	Causes severe eye irritation which may damage tissue.
<b>Skin Contact</b>	Causes severe burns. May cause an allergic skin reaction.
<b>Ingestion</b>	Harmful if swallowed. Causes burns of the mouth, throat and stomach.
<b>Chronic Effects/Carcinogenicity</b>	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**

Skin disorders. Lung disorders. Liver disorders.

**Data limitations**

No data available

Substances	CAS Number	Skin corrosion/irritation
Glutaraldehyde	111-30-8	Causes severe skin irritation with tissue destruction. (Rabbit)

Substances	CAS Number	Serious eye damage/irritation
Glutaraldehyde	111-30-8	Causes severe eye irritation which may damage tissue. (Rabbit)

Substances	CAS Number	Skin Sensitization
Glutaraldehyde	111-30-8	Skin sensitizer in guinea pig.

Substances	CAS Number	Respiratory Sensitization
Glutaraldehyde	111-30-8	May cause sensitization by inhalation

Substances	CAS Number	Mutagenic Effects
Glutaraldehyde	111-30-8	In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Glutaraldehyde	111-30-8	Did not show carcinogenic effects in animal experiments

Substances	CAS Number	Reproductive toxicity
Glutaraldehyde	111-30-8	Not a confirmed teratogen or embryotoxin.

Substances	CAS Number	STOT - single exposure
Glutaraldehyde	111-30-8	No information available

Substances	CAS Number	STOT - repeated exposure
Glutaraldehyde	111-30-8	May cause disorder and damage to the Kidney

Substances	CAS Number	Aspiration hazard
Glutaraldehyde	111-30-8	Not applicable

## 12. Ecological Information

**Ecotoxicity****Substance Ecotoxicity Data**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Glutaraldehyde	111-30-8	EC50(72h): 0.61 mg/L (Desmodesmus subspicatus) EC50(72h): 0.5 mg/L (Skeletonema costatum)	LC50(96h): 10 mg/L (Lepomis macrochirus) NOEC(97d): 1.6 mg/L (Oncorhynchus mykiss) LC50(96h): 3.5 mg/L (Oncorhynchus mykiss)	EC50 (17h) 6.65 mg/L (Pseudomonas putida)	EC50(48h): 0.35 mg/L (Daphnia magna) EC50(48h): 0.7 mg/L (Acartia tonsa) NOEC(21d): 0.13 mg/L (Daphnia magna)

		LC50(96h): 60 mg/L (Scophthalmus maximus)		EC50(48h): 0.1 mg/L (Acartia tonsa)
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**12.2. Persistence and degradability**

Readily biodegradable

Substances	CAS Number	Persistence and Degradability
Glutaraldehyde	111-30-8	Readily biodegradable (75% @ 28d)

**12.3. Bioaccumulative potential**

Does not bioaccumulate.

Substances	CAS Number	Bioaccumulation
Glutaraldehyde	111-30-8	-0.36

**12.4. Mobility in soil**

Substances	CAS Number	Mobility
Glutaraldehyde	111-30-8	Potential for mobility in soil is high (Koc between 50 and 150). Given its very low Henry's constant (3.3E-08 atm*m3/mole; 25 °C Measured), volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

**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****Australia ADG**

UN Number	UN3265
UN proper shipping name:	Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Marine Pollutant

**IMDG/IMO**

UN Number	UN3265
UN proper shipping name:	Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Marine Pollutant
EMS:	EmS F-A, S-B

**IATA/CAO**

UN Number	UN3265
UN proper shipping name:	Corrosive Liquid, Acidic, Organic, N.O.S. (Contains Glutaraldehyde)
Transport Hazard Class(es):	8
Packing Group:	II
Environmental Hazards:	Marine Pollutant

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Special precautions during transport**

None

**HazChem Code**

2X

<b>15. Regulatory Information</b>
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**Safety, health and environmental regulations specific for the product****International Inventories****Australian AICS Inventory**

All components are listed on the AICS or are subject to a relevant exemption, permit, or assessment certificate.

**New Zealand Inventory of Chemicals**

All components are listed on the NZIoC or are subject to a relevant exemption, permit, or assessment certificate.

**US TSCA Inventory**

All components listed on inventory or are exempt.

**Canadian Domestic Substances List (DSL)**

All components listed on inventory or are exempt.

**Poisons Schedule number**

S6

**International Agreements****Montreal Protocol - Ozone Depleting Substances:**

Does not apply.

**Stockholm Convention - Persistent Organic Pollutants:**

Does not apply

**Rotterdam Convention - Prior Informed Consent:**

Does not apply.

**Basel Convention - Hazardous Waste:**

Does not apply.

<b>16. Other information</b>
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**Date of preparation or review****Revision Date:** 06-Apr-2021**Revision Note**

SDS sections updated:

2  
3  
4  
11  
14**Full text of H-Statements referred to under sections 2 and 3**

H301 - Toxic if swallowed

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H330 - Fatal if inhaled

H331 - Toxic if inhaled

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

**Additional information**

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



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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/)  
NZ CCID

**Disclaimer Statement**

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**End of Safety Data Sheet**