

## SAFETY DATA SHEET

**Product Trade Name:**  
**ALDACIDE® G ANTIMICROBIAL**

**Revision Date:**  
06-Apr-2021

**Revision Number:**  
11

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

**Product Identifier**

**Product Trade Name:**

ALDACIDE® G ANTIMICROBIAL

**Synonyms**

None

**Chemical Family**

Aldehyde

**Internal ID Code**

HB003462

**Recommended use and restrictions on use**

**Application**

Biocide

**Uses advised against**

No information available

**Manufacturer's Name and Contact Details**

**Manufacturer/Supplier**

Halliburton Energy Services

14th Floor, CitiBank Tower, Al-Qutayat Street

Dubai, UAE

Telephone Number : +971 43036666

**Additional Information**

**Prepared By**

Chemical Stewardship

e-mail: fdunexchem@halliburton.com

**Emergency Telephone Number**

1-760-476-3959

Global Incident Response Access Code: 334305

Contract Number: 14012

### 2. HAZARDS IDENTIFICATION

**Classification System**

This SDS was prepared in accordance with United Nations "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" and its revisions.

**Classification**

Acute Oral Toxicity	Category 4 - H302
Acute Inhalation Toxicity - Dusts and Mists	Category 3 - H331
Skin Corrosion / Irritation	Category 1 B - H314
Serious Eye Damage / Eye 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

**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**

P261 - Avoid breathing 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  
 P284 - 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

**Additional Information**

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).

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances	CAS Number	PERCENT (w/w)	GHS Classification
Glutaraldehyde	111-30-8	10 - 30%	Acute Tox. 3 (H301) Acute Tox. 5 (H313) Acute Tox. 2 (H330) Skin Irrit. 1B (H314) Eye Irrit. 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****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**

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.

**Eyes**

Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.

**Ingestion**

Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

**Most important symptoms and effects, both acute and delayed**

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.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treat symptomatically.

**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.

**Specific hazards arising from the chemical**

Decomposition in fire may produce harmful gases.

**Special protective actions for fire-fighters**

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

**6. ACCIDENTAL RELEASE MEASURES****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.

**Environmental Precautions**

Prevent from entering sewers, waterways, or low areas.

**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.

**Additional Information**

See Section 8 and 13 for additional information.

**7. HANDLING AND STORAGE****Precautions for safe handling**

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.

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

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.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Limits****Appropriate 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.

**Individual protection measures, such as 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.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State:**

Liquid

**Color**

Clear light yellow

**Odor:**

Sharp

**Odor Threshold:**

No information available

**pH:**

3.1-4.5

**Specific Gravity**

1.064

**Freezing Point/Range (°C):**

(-5) - (-10)

**Pour Point/Range (C):**

No information available

**Boiling Point/Range (C):**

100.5

**Flash Point/Range (°C):**

No information available

**Flash Point Method:**

No information available

**Flammability Limits in Air - Lower (%):**

No information available

**Flammability Limits in Air - Upper (%):**

No information available

**Autoignition Temperature (°C):**

&gt; 275

**Evaporation Rate (Butyl Acetate=1):**

0.9

**Vapor Pressure @ 20 C (mmHg):**

0.2

**Vapor Density (Air=1):**

0.8

**Water Solubility**

Soluble in water

**Decomposition Temperature (C):**

No information available

**Viscosity, Dynamic @ 20 C (centipoise):**

No information available

**Viscosity, Kinematic @ 20 C (centistokes):**

No information available

**Partition Coefficient/n-Octanol/Water:**

-0.333

**Molecular Weight (g/mole):**

No information available

**10. STABILITY AND REACTIVITY****Reactivity**

Not expected to be reactive.

**Chemical Stability**

Stable

**Possibility of hazardous reactions**

Will Not Occur

**Conditions to Avoid**

Keep away from heat, sparks and flame.

**Incompatible materials**

Strong acids. Strong alkalis.

**Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

**Additional Guidelines**

Not Applicable

**11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity****Inhalation**

Toxic if inhaled. Causes severe respiratory irritation. May cause allergic respiratory reaction. Inhalation of vapors may result in skin sensitization.

**Eye Contact**

Causes severe eye irritation which may damage tissue.

**Skin Contact**

Causes severe burns. May cause an allergic skin reaction.

**Ingestion**

Harmful if swallowed. Causes burns 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.

**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

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**

**Toxicity****Ecotoxicity effects** Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

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) LC50(96h): 60 mg/L (Scophthalmus maximus)	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) EC50(48h): 0.1 mg/L (Acartia tonsa)

**Persistence and degradability**

Readily biodegradable

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

**Bioaccumulation potential**

Does not bioaccumulate.

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

**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.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal methods**

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

**Contaminated Packaging**

Follow all applicable national or local regulations.

**Other Information**

No information available

**14. TRANSPORT INFORMATION****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:**

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Marine Pollutant

**Special Precautions for User**

None

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

Not applicable

**15. REGULATORY INFORMATION****Regulatory Information:**

This SDS was prepared in accordance with United Nations "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" and its revisions.

**NFPA Ratings:**

Health 3, Flammability 1, Reactivity 0

**16. OTHER INFORMATION****Key literature references and sources for data**

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

**Revision Date:**

06-Apr-2021

**Revision Note**

SDS sections updated:

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**End of Safety Data Sheet**