

MATERIAL SAFETY DATA SHEET

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

Revision Date: 05-Jul-2006

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: ALDACIDE® G ANTIMICROBIAL
Synonyms: None.
Chemical Family: Aldehyde
Application: Biocide
Manufacturer/Supplier: Halliburton Energy Services, Inc.
P.O. Box 1431
Duncan, Oklahoma 73536-0431
Emergency Telephone: (281) 575-5000
Prepared By: Chemical Compliance
Telephone: 1-580-251-4335.

2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE	CAS Number	PERCENT	ACGIH TLV-TWA	OSHA PEL-TWA
Glutaraldehyde.	111-30-8	10 - 30%	0.05 ppm	Not applicable.

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye burns. May cause irreversible eye damage. May cause severe skin irritation. May be harmful if swallowed. May be harmful if inhaled. May cause allergic skin reaction. Keep out of reach of children.

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 In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

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.

Notes to Physician Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	Not Determined.
Flash Point/Range (C):	Not Determined.
Flash Point Method:	Not Determined.
Autoignition Temperature (F):	Not Determined.
Autoignition Temperature (C):	Not Determined.
Flammability Limits in Air - Lower (%):	Not Determined.
Flammability Limits in Air - Upper (%):	Not Determined.

Fire Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Special Exposure Hazards Decomposition in fire may produce toxic gases.

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

NFPA Ratings: Health 3, Flammability 1, Reactivity 0
HMIS Ratings: Flammability 1, Reactivity 0, Health 3

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment. Use only competent persons for cleanup.

Environmental Precautionary Measures Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Do not swallow. Wash hands after use. Launder contaminated clothing before reuse.

Storage Information Store away from acids. Store away from alkalis. Keep container closed when not in use. Product has a shelf life of 12 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Respiratory Protection Full Facepiece Respirator with Organic vapor cartridge with particulate prefilter.

Hand Protection Nitrile gloves. Butyl rubber gloves.

Skin Protection Butyl coated apron or clothing.

Eye Protection Splashproof chemical monogoggles or safety glasses with side shields in conjunction with a face shield. Do NOT wear contact lenses.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Transparent

9. PHYSICAL AND CHEMICAL PROPERTIES

Odor:	Sharp
pH:	3.1-4.5
Specific Gravity @ 20 C (Water=1):	1.064
Density @ 20 C (lbs./gallon):	8.87
Bulk Density @ 20 C (lbs/ft3):	Not Determined.
Boiling Point/Range (F):	213
Boiling Point/Range (C):	100.5
Freezing Point/Range (F):	14
Freezing Point/Range (C):	-10
Vapor Pressure @ 20 C (mmHg):	0.2
Vapor Density (Air=1):	0.8
Percent Volatiles:	100
Evaporation Rate (Butyl Acetate=1):	0.9
Solubility in Water (g/100ml):	Soluble
Solubility in Solvents (g/100ml):	Not Determined.
VOCs (lbs./gallon):	Not Determined.
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined.
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined.
Partition Coefficient/n-Octanol/Water:	-0.333
Molecular Weight (g/mole):	Not Determined.

10. STABILITY AND REACTIVITY

Stability Data:	Stable.
Hazardous Polymerization:	Will Not Occur.
Conditions to Avoid	Avoid temperatures greater than 100 F (38 C).
Incompatibility (Materials to Avoid)	Strong acids. Strong alkalis.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable.

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure	Eye or skin contact, inhalation.
Inhalation	Harmful if inhaled. Causes severe respiratory irritation. Vapors given off by heated product may be harmful. May cause allergic respiratory reaction. Inhalation of vapors may result in skin sensitization.
Skin Contact	May cause skin irritation. May cause skin burns on prolonged contact. Harmful if absorbed through the skin. Prolonged or widespread contact may result in the absorption of potentially harmful amounts of material. This product contains ingredients which may produce an allergic skin reaction. It should be treated as a skin sensitizer.
Eye Contact	May cause eye burns. May cause permanent eye damage. High vapor concentration will cause irritation.
Ingestion	Causes burns of the mouth, throat and stomach. Harmful if swallowed. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Aggravated Medical Conditions	Skin disorders. Lung disorders. Liver disorders.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are chronic health hazards.

Other Information None known.

Toxicity Tests

Oral Toxicity: LD50: 134 mg/kg (Rat)
Dermal Toxicity: LD50: > 2000 mg/kg (Rabbit)
Inhalation Toxicity: LC50: 480 mg/m³ (5000 ppm) 4-hour (rat)
Primary Irritation Effect: Not determined.
Carcinogenicity Not determined.
Genotoxicity: Not determined.
Reproductive / Developmental Toxicity: Not determined.

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air) Not determined.

Persistence/Degradability Readily biodegradable

Bio-accumulation Not Determined.

Ecotoxicological Information

Acute Fish Toxicity: May be highly toxic to aquatic life.
Acute Crustaceans Toxicity: TLM48: 0.11 mg/l (Acartia tonsa)
Acute Algae Toxicity: EC50: 8.1 mg/l (Skeletonema costatum)

Chemical Fate Information Not determined.

Other Information Not applicable.

13. DISPOSAL CONSIDERATIONS

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

Contaminated Packaging Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION

Land Transportation

DOT
Not restricted .

Canadian TDG
Not restricted .

ADR Not restricted .

Air Transportation

ICAO/IATA Not restricted .
UN3334, Aviation Regulated Liquid, N.O.S (Contains Glutaraldehyde)

Sea Transportation

IMDG Not restricted .

Other Shipping Information

Labels: None.

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory All components listed on inventory.

EPA SARA Title III Extremely Hazardous Substances Not applicable.

EPA SARA (311,312) Hazard Class Acute Health Hazard
Chronic Health Hazard

EPA SARA (313) Chemicals This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

EPA CERCLA/Superfund Reportable Spill Quantity For This Product Not applicable.

EPA RCRA Hazardous Waste Classification If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.

Federal Insecticide, Fungicide and Rodenticide Act: EPA Registration Number: 464-688-40153
EPA Establishment Number: 4203-TX-01; 10352-WV-2; 464-WV-1

California Proposition 65 All components listed do not apply to the California Proposition 65 Regulation.

MA Right-to-Know Law One or more components listed.

NJ Right-to-Know Law One or more components listed.

PA Right-to-Know Law One or more components listed.

Canadian Regulations

Canadian DSL Inventory All components listed on inventory.

WHMIS Hazard Class D1B Toxic Materials
D2B Toxic Materials
E Corrosive Material

16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS
Not applicable.

Additional Information

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

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

Disclaimer Statement

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