

MATERIAL SAFETY DATA SHEET

Product Trade Name:
ALDACIDE® G ANTIMICROBIAL

Revision Date:
11-Dec-2014

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

Product Trade Name:
ALDACIDE® G ANTIMICROBIAL

Synonyms:
None

Chemical Family:
Aldehyde

Application:
Biocide

Manufacturer/Supplier
Baroid Fluid Services
Product Service Line of Halliburton
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4000
Emergency Telephone: (281) 575-5000

Prepared By
Chemical Compliance
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2. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | CAS Number | PERCENT (w/w) | ACGIH TLV-TWA |
|----------------|------------|---------------|---------------------------------------|
| Glutaraldehyde | 111-30-8 | 10 - 30% | 0.05 ppm |
| Methanol | 67-56-1 | 0.1 - 1% | TWA: 200 ppm STEL: 250 ppm Skin |

3. HAZARD IDENTIFICATION

Hazard Overview

Keep out of reach of children 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.

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.
Remove contaminated clothing and discard.

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. No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Special Protective Equipment for Fire-Fighters

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

Special Exposure Hazards

Decomposition in fire may produce toxic gases.

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. Avoid breathing mist. 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 36 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

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

Hand Protection

Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Butyl rubber gloves. (>= 0.7 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.
Manufacturer's directions for use should be observed because of great diversity of types.

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:

Clear light yellow

Odor:

Sharp

pH:

3.1-4.5

Specific Gravity @ 20 C (Water=1):

1.064

Density @ 20 C (kg/l):

1.064

Solubility in Water (g/100ml):

Soluble

Vapor Density (Air=1):

0.8

Vapor Pressure @ 20 C (mmHg):

0.2

Boiling Point/Range (C):

100.5

Freezing Point/Range (C):

-5 / -10

Flash Point/Range (C):

Not Determined

Flammability Limits in Air - Lower (%):

Not Determined

Flammability Limits in Air - Upper (%):

Not Determined

Partition Coefficient/n-Octanol/Water:
-0.333

10. STABILITY AND REACTIVITY

Stability Data:
Stable

Hazardous Polymerization:
Will Not Occur

Conditions to Avoid
Keep away from heat, sparks and flame.

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 burns. 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
Not determined

Toxicity Tests

Oral Toxicity:
LD50: 320 mg/kg (Rat)

Dermal Toxicity:
LD50: > 2000 mg/kg (Rabbit)

Inhalation Toxicity:
LC50: 0.28-0.39 mg/l/4 hr (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 expected to bioaccumulate.

Ecotoxicological Information

Acute Fish Toxicity:
May be highly toxic to aquatic life.
LC50: (96 hour) 13 mg/l (Lepomis macrochirus)

Acute Crustaceans Toxicity:
TLM48: 0.11 mg/l (Acartia tonsa)
TLM48: 29.73 mg/l (Daphnia magna)

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

UN Number:
UN3265

UN Proper Shipping Name:
Corrosive Liquid, Acidic, Organic, N.O.S.

Transport Hazard Class(es):
8

Packing Group:
III

Labels:
Corrosive

15. REGULATORY INFORMATION

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

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

Risk Phrases
R34 Causes burns.

R20/22 Harmful by inhalation and if swallowed.
R42/43 May cause sensitization by inhalation and skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases
S23 Do not breathe gas, fumes, vapour or spray.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 In case of accident or if you feel unwell, seek medical advice immediately.

S1/2 Keep locked up and out of reach of children.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION

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

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.

Component Classification

R20/22 Harmful by inhalation and if swallowed.

R23/25 Toxic by inhalation and if swallowed.

R34 Causes burns.

R42/43 May cause sensitization by inhalation and skin contact.

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

Disclaimer Statement

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