

B2512

SAFETY DATA SHEET



SECTION 1 – IDENTIFICATION

Product Identifier: B2512

Manufacturer: Aquaserv, Inc.
61 Keel Avenue
Memphis, TN 38107

24 Hour Emergency Phone: (901) 525-7701
CHEMTREC: (800) 424-9300

Recommended use: Microbiocide

SECTION 2 – HAZARDS IDENTIFICATION

Physical Hazards: Not classified.

Health Hazards

Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation: Category 1C
Serious Eye Damage/Eye Irritation: Category 1
Respiratory Sensitization: Category 1

OSHA Defined Hazards: Not classified

Label Elements

Pictograms:



Signal Word: **Danger!**

Hazard Statement(s): Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statement(s): Avoid breathing mist or vapor.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.

Response Statement(s): IF SWALLOWED: Immediately call a poison center/doctor. Rinse mouth.
Do NOT induce vomiting.
IF ON SKIN/HAIR: Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Storage/Disposal Statement: Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Environmental Hazards: Hazardous to the aquatic environment, acute hazard (Category 1)
 Hazardous to the aquatic environment, long-term hazard (Category 1)

Hazard(s) Not Otherwise Classified (HNOC): Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Supplemental Information: 4% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. 13.5% of the mixture consists of component(s) of unknown acute inhalation toxicity. 4% of the mixture consists of component(s) of unknown acute dermal toxicity.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	% by Wt
Glutaraldehyde	111-30-8	20 - < 30
Didecyldimethylammonium Chloride	7173-51-5	5 - < 10
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	5 - < 10
Ethanol	64-17-5	3 - < 5
Other components below reportable levels		50 - < 60

SECTION 4 – FIRST AID MEASURES

Description of First Aid Measures

Inhalation: Move person to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; do not use mouth-to-mouth. Use rescuer protection (pocket mask equipped with a one-way valve or other proper respiratory medical device). If experiencing respiratory symptoms call a poison control center or doctor for treatment advice.

Skin Contact: Take off immediately all contaminated clothing. Wash skin with soap and plenty of water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye Contact: Wash immediately and continuously with flowing water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use a mouth-to-

mouth method if victim ingested the substance. Use a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most Important Symptoms/Effects, Acute and Chronic: Burning pain and severe corrosive skin damage. Nausea, vomiting. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing. Difficulty in breathing.

Indication of Immediate Medical Attention and Special Treatment Needed: Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General Advice: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, foam, carbon dioxide (CO₂), or dry chemical.

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher, as this will spread the fire.

Hazardous Combustion Products: Under fire conditions some components of this product may form gases hazardous to health.

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting Procedures: Move containers from fire area if you can do so without risk.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards: No unusual fire or explosion hazards noted.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Evacuate area of unnecessary personnel. Keep upwind of spill. Only trained and properly protected personnel must be involved in clean-up operations. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

Spill or Leak Procedures: This product is miscible in water.

Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

SECTION 7 - HANDLING AND STORAGE

Conditions for Safe Handling: Avoid breathing mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for Safe Storage: Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS# 64-17-5)	PEL	1900 mg/m ³ / 1000 ppm

U.S. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS# 64-17-5)	STEL	1000 ppm
Glutaraldehyde (CAS# 111-30-8)	Ceiling	0.05 ppm

U.S. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS# 64-17-5)	TWA	1900 mg/m ³ / 1000 ppm
Glutaraldehyde (CAS# 111-30-8)	Ceiling	0.8 mg/m ³ / 0.2 ppm

Biological Limit Values: No biological exposure limits noted for the ingredient(s).

Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Eye wash facilities and emergency shower must be available when handling this product.

Personal Protective Equipment

Eye/Face Protection: Wear safety glasses with side shields (or goggles) and a face shield.

Hand Protection: Wear appropriate chemical resistant gloves.

Skin Protection: Wear suitable chemical resistant clothing and shoes.

Respiratory Protection: Chemical respirator with organic vapor cartridge, full face shield, dust and mist filter.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene Considerations: Keep away from food and drink. Always observe good personal hygiene measure, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colorless to light yellow liquid
Odor	Fruity
Odor Threshold	Not available
pH	4.4 @ 25 °C
Melting Point	Not available
Boiling Point	> 210.74 °F (99.3 °C)
Flash Point	210.7 °F (99.3 °C)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Lower Explosion Limit	Not available
Upper Explosion Limit	Not available
Vapor Pressure	Not available
Relative Vapor Density	Not available
Relative Density	Not available
Water Solubility	Miscible
Partition Coefficient: n-Octanol/Water	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	9.23 cSt
Viscosity Temperature	69.8 °F (21 °C)
Explosive Properties	Not explosive
Oxidizing Properties	Not oxidizing
Specific Gravity	1.04 – 1.06 @ 20 °C
VOC (Weigh %)	4 % estimated

NOTE: The above represents typical values and should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: This product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: Material is stable under normal conditions.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Conditions to Avoid: Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible Materials: Strong oxidizing agents and amines.

Hazardous Decomposition Products: No hazardous decomposition products are known.

SECTION 11 - TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation: May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.

Eye Exposure: Causes serious eye damage.

Skin Exposure: Causes severe skin burns.

Ingestion: Harmful if swallowed. Causes digestive tract burns.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Burning pain and severe corrosive skin damage. Nausea, vomiting, serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing. Difficulty in breathing.

Information on Toxicological Effects**Acute Toxicity**

Acute Oral Toxicity: Harmful if swallowed.

As product (B2512)
LD50, rat, 550 mg/kg

Didecyldimethylammonium Chloride (CAS# 7173-51-5)
LD50, 238 mg/kg
Rat, 329 mg/kg

Glutaraldehyde (CAS# 111-30-8)
LD50, rat, 316 mg/kg
200 mg/kg

Quaternary Ammonium Compounds, Benzyl-C12 - C16-alkyldimethyl, Chlorides (CAS# 68424-85-1)
LD50, 430 mg/kg

Ethanol (CAS# 64-17-5)
LD50, rat, 10470 mg/kg

Acute Dermal Toxicity

Didecyldimethylammonium Chloride (CAS# 7173-51-5)
LD50, 3342 mg/kg
Rat, > 1000 mg/kg

Glutaraldehyde (CAS# 111-30-8)
LD50, rabbit, >2000 mg/kg

Quaternary Ammonium Compounds, Benzyl-C12 - C16-alkyldimethyl, Chlorides (CAS# 68424-85-1)
LD50, 3560 mg/kg

Acute Inhalation Toxicity

Ethanol (CAS# 64-17-5)
LC50, rat, 117 - 125 mg/l, 4 h

Glutaraldehyde (CAS# 111-30-8)
LC50, rat, 0.52 mg/l, 4 hour

*Estimates for product may be based on additional component data not shown.

Skin Corrosion/Irritation

Causes severe skin burns and eye damage.

Serious Eye Damage/Eye Irritation

Causes serious eye damage.

Sensitization

ACGIH Sensitization (Glutaraldehyde) - Sensitizer

Respiratory Sensitization – May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sensitization – This product is not expected to cause skin sensitization.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific Target Organ Systemic Toxicity (Single Exposure): Not classified.

Specific Target Organ Systemic Toxicity (Repeated Exposure): Not classified.

Aspiration Hazard: Not an aspiration hazard.

Chronic effects: Prolonged inhalation may be harmful.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

Aquatic Toxicity - Very toxic to aquatic life with long lasting effects.

Didecyldimethylammonium Chloride (CAS# 7173-51-5)

Algae, EC50, algae, 0.062mg/l, 72 h

Crustacea, LC50, daphnia, 0.057 mg/l, 48 h

Crustacea, NOEC, daphnia, 0.021 mg/l, 21 d

Fish, LC50, danio rerio, 0.97 mg/l, 96 h

Acute

Fish, LC50, bluegill (Lepomis macrochirus), 0.032 mg/l, 96 h

Chronic

Crustacea, NOEC, daphnia, 0.01 mg/l

Ethanol (CAS# 64-17-5)

Acute

Algae, EC50, algae, 675 mg/l, 72 h

Crustacea, EC50, daphnia, 5012 mg/l, 48 h

Fish, LC50, fathead minnow (Pimephales promelas), 14200 mg/l, 96 h

Chronic

Crustacea, NOEC, daphnia, 9.6 mg/l, 9 d

Glutaraldehyde (CAS# 111-30-8)*Acute*

Algae, EC50, algae, 0.92 mg/l, 72 h

Crustacea, EC50, daphnia, 29.73 mg/l, 48 h

Fish, LC50, bluegill (*lepomis macrochirus*), 13 mg/l, 96 h*Chronic*

Crustacea, NOEC, daphnia, 5 mg/l, 21 d

Fish, NOEC, fish, 3.2 mg/l, 97 d

Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides (CAS# 68424-85-1)*Acute*Fish, LC50, bluegill (*lepomis macrochirus*), 0.515 mg/l*Chronic*

Crustacea, NOEL, daphnia, 0.0042 mg/l

*Estimates for product may be based on additional component data not shown.

Persistence and Degradability

This product is expected to be readily biodegradable.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Procedure: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. Dispose of in accordance with all applicable regulations. The waste code should be assigned in discussion between the user, the producer and the waste disposal company. Dispose of waste from residues/unused products in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 - TRANSPORT INFORMATION**DOT**

Proper Shipping Name: Disinfectants, liquid, corrosive n.o.s. (Quaternary Ammonium Compound)
UN Number: 1903
Transport Hazard Classes
 Class: 8
 Subsidiary risk: -
 Label(s): 8
Packing Group: III
Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Special Provisions: IB3, T4, TP1
Packaging Exceptions: 154
Packaging Non-Bulk: 203
Packaging Bulk: 241
ERG Number: 153

IATA

Proper Shipping Name: Disinfectants, liquid, corrosive n.o.s. (Quaternary Ammonium Compound)
UN Number: 1903
Transport Hazard Classes
 Class: 8
 Subsidiary risk: -
Packing Group: III
Environmental Hazards: No
ERG Code: 8L
Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Other Information

Passenger and cargo aircraft: Allowed
 Cargo aircraft only: Allowed

IMDG

Proper Shipping Name: Disinfectants, liquid, corrosive n.o.s. (Quaternary Ammonium Compound)
UN Number: 1903
Transport Hazard Classes
 Class: 8
 Subsidiary risk: -
Packing Group: III
Environmental Hazards
 Marine pollutant: No
EmS: F-A, S-B
Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not established.

DOT



IATA; IMDG



SECTION 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethanol (CAS# 64-17-5) – Listed.

SARA 304 Emergency Release Notification – Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) – Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories

Immediate Hazard – Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SARA 302 Extremely Hazardous Substance – Not listed.

SARA 311/312 Hazardous Chemical – No

SARA 313 (TRI Reporting) – Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List – Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Not regulated.

Safe Drinking Water Act (SDWA) – Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Ethanol (CAS# 64-17-5) – Low Priority.

FIFRA Information – This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Listed below is the hazard information as required on the pesticide label.

Signal Word – DANGER
 KEEP OUT OF REACH OF CHILDREN

Hazard Statement – Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed, absorbed through the skin or inhaled.

EPA Registration Number: 10324-185-72714

International Inventories

Country(s) or Region	Inventory Name	On Inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16 – OTHER INFORMATION

Issue Date: May 27, 2015
Revision Date: October 3, 2016
Version: 03
Revision Summary: None
Prepared By: Product Stewardship Team
Revision Information: This document has undergone significant changes and should be reviewed in its entirety.

This Safety Data Sheet was prepared to comply with the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Aquaserv provides no warranties; either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. The data contained in this Safety Data Sheet reflects the latest information available to us on hazards, properties, and handling of this product under the recommended conditions of use. The information on this Safety Data Sheet relates only to the material as supplied and does not relate to combinations with other materials or processes.