



SERVICIDE 256

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier: SERVICIDE 256

Manufactured by: Aquaserv, Inc.
570 N. Rivergate Rd.
Memphis, TN 38109

24 Hour Emergency Phone: (901) 525-7701

CHEMTREC: (800) 424-9300

Recommended use: Disinfectant / Sanitizer

Product at Use-Dilution: Disinfectant/Non-Food Contact Sanitizer: ½ oz. per gallon. Refer to EPA registered label for product dilution/application directions for

SECTION 2 – HAZARDS IDENTIFICATION

Physical hazards: Not classified.

Health hazards:

Skin Corrosive/irritation	Category 1C
Serious eye damage/eye irritation	Category 1
Acute Toxicity – Oral	Category 4
Acute Toxicity – Dermal	Category 4

OSHA defined hazards: Not classified.

Label elements:



Signal word: Danger!

Hazard statements: H302: Harmful if swallowed
H312: Harmful in contact with skin
H314: Causes severe skin burns and eye damage

Prevention: P262: Do not get in eyes, on skin, or on clothing
P264: Wash affected areas thoroughly after handling
P270: Do not eat, drink, or smoke when using this product
P280: Wear protective gloves and eye, face, and foot protection

Response: P301+312+330+331: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310: Immediately call a POISON CENTER or doctor/physician
 P363: Wash contaminated clothing before reuse

Storage:

P233: Keep container tightly closed
 P234: Keep only in original container
 P501: Dispose of contents and container to an approved waste disposal plant

Hazard(s) not otherwise classified (HNOC):

Not classified.

Product at Use-Dilution:	
Hazard pictograms/symbols:	None
Signal Word:	Warning
Hazard Statements:	H320: Causes eye irritation
Precautionary Statements:	
Prevention:	P264: Wash affected areas thoroughly after handling
Response:	P305+P351+P338+P337+P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

For detailed toxicological information see Section 11.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	% by wt.
Didecyldimethylammonium chloride	7173-51-5	9.6 – 10.7
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	6.4 – 7.1
Octyl dimethylamine oxide	2605-78-9	1.0 – 5.0
Tetrasodium EDTA	64-02-8	1.0 – 5.0
Citric Acid	77-92-9	0.0 – 1.0
Ethanol	64-17-5	1.0 – 3.0
Water	7732-18-5	50.0 – 75.0

Product at Use-Dilution: This product does not contain any hazardous ingredients in quantities requiring reporting in accordance with local regulations.
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SECTION 4 – FIRST AID MEASURES

Eye Contact: Rinse eyes with water. Remove any contact lenses and continue flushing eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Seek medical attention if irritation develops or persists.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash affected areas with plenty of water. Seek medical attention if irritation develops or persists.

If Inhaled: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

If Swallowed: Do NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Rinse mouth with water. Seek medical attention.

Product at Use-Dilution:

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
Skin contact: No known effect after skin contact. Rinse with water for a few minutes.
Ingestion: Get medical attention if symptoms occur.
Inhaled: No special measures required. Treat symptomatically.

Most important symptoms/effects, acute and delayed: The most important known symptoms and effects are described in the labeling (section 2.2) and/or in section 11. Corrosive effects. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. Prolonged or repeated skin contact may aggravate existing skin conditions. Inhalation of mists may aggravate existing chronic respiratory conditions such as asthma, emphysema, or bronchitis.

Indication of immediate medical attention and special treatment needed: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point and Method: None

Extinguishing Media: Use media suitable for the material that is burning. Use dry chemicals, foam, water, or carbon dioxide.

Special Hazards Arising from the Substance or Mixture

Special hazards during firefighting: Container may rupture on heating
On combustion or on thermal decomposition: May include carbon oxides, nitrogen oxides.

Special Firefighting Procedures: As in any fire, use self-contained breathing apparatus (SCBA) and proper personal protection clothing.

Unusual Fire and Explosive Hazards: There are no known unusual fire and explosion hazards associated with this material in its virgin form. However, in a fire-fighting scenario involving multiple chemicals, fire fighters should be aware of possible synergistic effects and attack the fire accordingly.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear protective gloves and clothing, eye protection and face protection. Use appropriate containment to avoid environmental contamination. For personal protection, see section 8 of the MSDS.

Environmental precautions: Avoid contact of spilled material and runoff with soil and surface waterways.

Methods and material for containment and cleaning up

Recovery: Evacuate nonessential personnel. Stop leak if safe to do so. Absorb spill as much material as possible with a suitable absorbent (vermiculite, fuller's earth, or sand). Shovel up and place in a non-metal waste container for disposal. Dike large spills with soil or sandbags to contain it and prevent its spread. Use appropriate containment to avoid runoff release to sewer or waterways. Remove containers of incompatible material from the release area.

Decontamination/ cleaning: Wash non-recoverable remainder with large amounts of water. Clean contaminated surfaces thoroughly. Recover the cleaning water for subsequent disposal.

Disposal: Dispose of in accordance with local regulations.

Additional advice: Spill area may be slippery.

Product at Use-Dilution:

Use a water rinse for final clean-up.

Review each section of this SDS before responding to a spill or leak of this product. For detailed disposal information see section 13.

SECTION 7 - HANDLING AND STORAGE

Handling: Wear appropriate protective equipment including long chemical resistant gloves, chemical splash goggles and protective footwear. Handle in accordance with good industrial hygiene and safety practice. Do not spray toward face. Wash affected areas after use. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Product at Use-Dilution:

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Storage: Keep container tightly closed. Opened containers must be carefully resealed and kept upright to prevent leakage.

Other Precautions: Hazardous reactions may occur on contact with certain chemicals. Refer to the list of incompatible materials section 10: "Incompatible materials"

Product at Use-Dilution:

Keep out of reach of children. Keep container tightly closed.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Introductory remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal considerations.

Control parameters

Components with workplace control parameters.

Components	Value	Control Parameters	Basis
Not reportable			

Exposure Controls

Control measures

Engineering measures: Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

Personal Protective Equipment:

Respiratory protection: In operations where mists are generated, wear a NIOSH/MSHA approved respirator that has been selected by a technically qualified person for the specific work conditions.

Hand protection: Wear long chemical resistant gloves. Observe instructions regarding permeability and breakthrough time provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasions, and contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Wear chemical splash goggles.

Skin and body Protection: Wear footwear protecting against chemicals and impervious clothing. Choose body protection according to the amount and concentration of the substances in the workplace.

Hygiene measures: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures: Ensure that eyewash stations and safety showers are close to the workstation location, and that emergency equipment is immediately accessible with instructions for use. The protective equipment must be selected in accordance with current local standards and in following proper use instructions from the supplier of the protective equipment. Selection of appropriate personal protective

equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

Product at Use-Dilution:

Respiratory protection: A respirator is not needed under normal and intended conditions of product use.

Hand/eye/skin & body protection: No protective equipment is needed under normal use conditions.

Hygiene measures:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with product.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear solution
Odor	Characteristic odor
Odor Threshold	Not available
pH (SU at 25°C)	6.5 – 10.5
Melting / Freezing Point (°C)	Not available
Initial Boiling Point / Range	>100°C (>212°F)
Flash Point (°C)	Does not flash
Evaporation Rate (Water=1)	Not available
Flammability	Not available
Lower Flammability Limit (%)	Not available
Upper Flammability Limit (%)	Not available
Vapor Pressure (kPa at 20°C)	Not available
Vapor Density (Air = 1)	Not available
Relative Density at 25°C (Specific Gravity of water = 1)	1.01 (8.4 lbs./gal.)
Solubility in Water	Soluble in all proportions
Octanol / Water Partition Coefficient (log Kow)	Not available
Autoignition Temperature (°C)	Not available
Decomposition Temperature (°C)	Not available
Viscosity (cSt at 22°C)	Low viscosity
VOC	<3.0% (estimated)
Explosive properties	None
Oxidizing properties	None

Product at Use-Dilution:

Appearance: Clear solution

Odor: Characteristic odor

pH: 6-8

Flash point: Does not flash

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: Non-reactive under normal conditions of use, storage, and transport

Chemical Stability: Stable under normal conditions

Possibility of hazardous reactions: No hazardous reactions to be expected under recommended handling and storage conditions.

Conditions to avoid: No information available

Incompatible Materials: Anionic surfactants

Hazardous decomposition products: Carbon monoxide, carbon dioxide and nitrogen oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product Summary:

Causes severe skin burns and serious eye damage. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus, and possibly digestive tract. Vapors and spray mist may irritate throat and respiratory system and cause coughing. No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Information on likely routes of exposure:

Eye Exposure: Causes eye damage.

Skin Exposure: Causes severe burns.

Inhalation: Inhalation may cause inflammation of mucous membranes and irritation

Ingestion: There is no direct data available pertaining to the hazards associated with ingestion of this product. As with most chemicals, ingestion may cause gastrointestinal irritation accompanied by nausea, vomiting, and diarrhea.

Primary Routes of Exposure (Chronic): Not expected to cause any adverse chronic health effects.

Carcinogenicity Information: No Carcinogenic substances as defined by IARC, NTP and/or OSHA.

Acute Toxicity:

Component/Mixture	LD50 Oral	LC50 Inhalation	LD50 Dermal
Didecyldimethylammonium chloride (CAS 7173-51-5)	329 mg/kg (Rat)	0.07 mg/kg	>1000 mg/kg (Rat)
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides (CAS 68424-85-1)	430 mg/kg		3560 mg/kg
Ethyl alcohol (CAS 64-17-5)	10,470 mg/kg (Rat)	117 - 125 mg/L, 4h (Rat)	-

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: This product is toxic to fish.

Chemical	Algae	Fish	Crustacea
Didecyldimethylammonium chloride (CAS 7173-51-5)	EC50 = 0.062 mg/L 72h	LC50 = 0.97mg/L 96h	LC50 = 0.057 mg/L 48h
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides (CAS 68424-85-1)		LC50 = 0.515 mg/L	NOEL = 0.0042 mg/L (Chronic)
Ethyl alcohol (CAS 64-17-5)	EC50 = 675 mg/L 72h	LC50 = 14,200 mg/L 96h	EC50 = 5,012 mg/L 24 h

Persistence and degradability: Readily biodegradable. Not persistent in the environment.

Bioaccumulative potential: Not considered bioaccumulative.

Mobility in soil: No information 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 product.

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 the label instructions, contact your State Pesticide or Environmental Control agency or the Hazardous Waste representative at the nears EPA Regional Office for guidance. Chemical additions, processing or otherwise altering this material may make waste management information presented in the SDS incomplete, inaccurate or otherwise inappropriate.

Contaminated packaging:

Non-refillable container - Do not reuse container (bottle, cans, jars). Triple rinse (or equivalent). Offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Refillable container - Refill this container with pesticide only. Do not reuse this container for any other purpose. To clean the container before final disposal; empty the remaining contents from this container into application equipment or a mix tank. Drain rinsate into application equipment and dispose of according to Pesticide Disposal instructions. Triple rinse container (or equivalent) promptly after emptying. Continue to drain for 10 seconds after the flow ends. Repeat this procedure two more times.

SECTION 14 - TRANSPORT INFORMATION

United States Department of Transportation (DOT):

UN Number: UN1903
Proper Shipping Name: Disinfectant, Liquid, Corrosive, N.O.S. (Quaternary Ammonium Compound)
Hazard Class: 8
Packing Group: PG II

International Maritime Organization (IMDG):

UN Number: UN1903
Proper Shipping Name: Disinfectant, Liquid, Corrosive, N.O.S. (Quaternary Ammonium Compound)
Hazard Class: 8
Packing Group: PG II
EmS: F-A, S-B

International Air Transportation Association (IATA):

UN Number: UN1903
Proper Shipping Name: Disinfectant, Liquid, Corrosive, N.O.S. (Quaternary Ammonium Compound)
Hazard Class: 8
Packing Group: PG II
ERG Code: 8L

International Carriage by Rail/Road (RID/ADR):

UN Number: UN1903
Proper Shipping Name: Disinfectant, Liquid, Corrosive, N.O.S. (Quaternary Ammonium Compound)
Hazard Class: 8
Packing Group: PG II
ADR/RID Labels: 8

SECTION 15 - REGULATORY INFORMATION

INTERNATIONAL CHEMICAL REGISTRATION INFORMATION

Registration for All Components:

United States (TSCA) registered or exempt:	Yes
Australia (AICS) registered or exempt:	Yes
Canada (DSL/NDL) registered or exempt:	Yes
China (IECSC) registered or exempt:	Yes
Europe (EINECS) registered or exempt:	Yes
Japan (ENCS) registered or exempt:	Yes
Korea (ECL) registered or exempt:	Yes
Philippines (PICCS) registered or exempt:	Yes

US REGULATIONS

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization:

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61):

This product does not contain any HAP's

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA):

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER

Corrosive.

Causes irreversible eye damage and skin burns.

Harmful if swallowed, inhaled or absorbed through the skin.

EPA Reg. No.: 10324-141-72714

SECTION 16 – OTHER INFORMATION

Revision Comments: Format and content updated in accordance with 29 CFR 1910.1200.

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Prepared by: Product Stewardship Team

<p>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.</p>
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