

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

This SDS is used for the following Arcot products:

Arcot #9709M Refresh Quat Sanitizer

Arcot #6709 Refresh Quat Sanitizer (Max-Control Dispensing System)

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045

Emergency Response Telephone: 1-800-633-8253 (Account #9390)

Arcot Customer Service Telephone: 713-413-9700

Website: www.ArcotManufacturing.com

Recommended Use: Sanitizer, disinfectant, bacteriostat, mildew inhibitor

Restrictions On Use: Refer to label.

2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Hazard Classification:

Acute toxicity, oral – Category 3

Skin corrosion/irritation - Category 1B

Serious eye damage/eye irritation – Category 1

Hazardous to the aquatic environment, acute hazard - Category 1

Hazardous to the aquatic environment, long-term hazard - Category 1

Signal Word: **DANGER**



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. May be fatal if inhaled, swallowed or absorbed through the skin.

Hazard Statements:

H314: Causes severe skin burns and eye damage. (Category 1)

H318: Causes serious eye damage. (Category 1)

Toxic if swallowed.

May cause respiratory irritation.

Precautionary statements:

Prevention:

P234: Keep only in original container.
P260: Do not breathe mist/vapors/spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
Keep away from heat. Keep container tightly closed. Avoid contact with eyes and skin. Do not inhale or ingest. May cause permanent eye damage and blindness.

Response:

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P330 + P331 + P310: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 + P363: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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.
P321: Specific treatment (see supplemental first aid instructions on the label.)
P390: Absorb spillage to prevent material damage.
In case of fire: Use appropriate media to extinguish. See Section 5.

Storage/Disposal:

P234: Keep only in original container.
P210: Keep away from heat.
P273: Avoid release to the environment.
P405: Store locked up.
P501: Dispose of content and/or container to an approved waste disposal plant in accordance with local, regional, national, and/or international regulations.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Store away from children and untrained personnel.

Safety Phrases:

S36: Wear suitable protective clothing.
S37: Wear suitable gloves.
S39: Wear eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazards not otherwise classified (HNOC): Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Supplemental Information: 1-2% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	Concentration
Water	7732-18-5	> 80%
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chloride	68424-85-1	< 5%
1-decanaminium, n,n-dimethyl-n-octyl-, Chloride	32426-11-2	< 3%
Ethanol	64-17-5	< 3%
1-octanaminium, N,n-dimethyl-n-octyl-, Chloride	5538-94-3	< 2%
Didecyldimethylammonium Chloride	7173-51-5	< 2%
Other ingredients, if any, are below reportable levels. The exact percentage of composition has been withheld as a trade secret.		

4. FIRST-AID MEASURES

General advice: Consult a physician. Have this SDS or the product label when calling a poison control center or doctor, or going for treatment. Move out of dangerous area. Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. If any irritation or symptoms persists, seek medical attention immediately.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

In case of skin contact: Take off contaminated clothing and shoes immediately. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash contaminated clothing before reuse.

In case of eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Most important symptoms and effects, both acute and delayed: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Harmful if swallowed.

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. Maintain adequate ventilation and oxygenation of the patient. Symptoms may be delayed.

5. FIRE-FIGHTING MEASURES

Specific hazards that may develop from this product during fire: During fire, gases hazardous to health may be formed. Hazardous decomposition and byproducts may include carbon oxides (such as carbon monoxide and carbon dioxide), nitrogen oxides and toxic and irritating fumes.

Suitable extinguishing media: Product is not flammable. Water spray, alcohol-resistant foam, dry chemical or carbon dioxide may be used for surrounding fires.

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

Advice for firefighters: Wear self-contained breathing apparatus and full protective clothing in case of fire. In spill situations, wear chemical protective clothing. Stop leak if safe to do so. Keep unauthorized personnel away. Evacuate residents who are downwind of fire. Do not breathe fumes. Move containers from fire area if you can do so without risk.

Precautions for firefighters: Use water spray to keep fire-exposed containers cool.

General advice: Keep product and empty containers away from heat.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleanup procedures: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Ventilate the contaminated area. This product is miscible in water. Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Prevent product from entering drains. Completely contain spilled material with dikes, sandbags, etc., where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. Keep in suitable, closed containers for disposal. For waste disposal, see Section 13 of the SDS.

Environmental precautions: Avoid release to the environment. 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.

7. HANDLING AND STORAGE

Precautions for safe handling: See Sections 2 and 8. Read the SDS and label carefully and completely before handling this product. Keep away from heat. Do not get in eyes, on skin or on clothing. Do not taste or swallow. Do not breathe mist or vapor. Use only with adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Transfer and storage systems should be compatible. Observe good hygiene practices. Do not eat, drink or smoke where the product is being used. Wash thoroughly after handling.

Conditions for safe storage: Store in original container. Keep away from heat. Keep containers tightly closed, properly labeled and upright to prevent leakage. Store in a cool, dry, shaded and well-ventilated place away from sunlight and extreme temperatures. Store at temperatures between 55°F and 85°F. Store locked up. Containers which are opened must be carefully resealed. Do not mix with other chemicals. Store away from strong oxidizing agents and other incompatible materials (see section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Ethanol (CAS# 64-17-5)	OSHA PEL	ACGIH TLV	NIOSH
STEL	1000 ppm	Not established	1000 ppm
TWA	1900 mg/m ³	1000 ppm	1900 mg/m ³

Appropriate engineering controls: Provide sufficient mechanical ventilation to maintain airborne levels below recommended exposure limits. Ventilation rates should be matched to conditions. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal Protective Equipment (PPE):

Eye Protection: Wear face shield and eye protection. An emergency eye wash must be readily accessible to the work area. Ensure safety shower is available near all areas of bulk storage, delivery and use.

Skin and Body Protection: Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.

Hand Protection: Wear appropriate impermeable, chemical-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Wash and dry hands after handling this product.

Protective Material Types: Suitable gloves and clothing can be recommended by the glove and safety supplier.

Respiratory protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use an NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

General Industrial Hygiene Considerations: When using, do not smoke. Keep away from food and drink. Remove and wash contaminated clothing promptly. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not get in eyes or on skin or clothing.

Environmental Exposure Controls: Avoid release to the environment. Follow best practice for site management and disposal of waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form: liquid Color: clear colorless or light amber
Odor	slight
Odor Threshold	No data available
pH	7-9
Freezing point	No data available
Initial boiling point	> 200°F
Flash point	No data available (Not Flammable)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	approximately 1 g/mL (8.26 Lb./Gal.) at 25°C (77°F)
Water solubility	completely soluble
Partition coefficient (n-octanol/water)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressures in original containers.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No hazardous decomposition products are known.

Conditions to avoid: Contact with incompatible materials. Heat. Extreme temperatures. Direct sunlight.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: During fire, gases hazardous to health may be formed. Hazardous decomposition and byproducts may include carbon oxides (such as carbon monoxide and carbon dioxide), nitrogen oxides and toxic and irritating fumes. In the event of fire, see section 5.

11. TOXICOLOGICAL INFORMATION

This product is a quat-based sanitizer and disinfectant. The primary effects and toxicity of this material are due to its disinfecting nature.

Likely routes of exposure: Inhalation, Skin, Eye, Ingestion.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation

Acute (Immediate): May cause irritation to the respiratory system.

Chronic (Delayed): Prolonged inhalation may be harmful.

Skin

Acute (Immediate): May cause skin irritation and burns.

Eye

Acute (Immediate): Cause serious eye damage and possibly blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Ingestion

Acute (Immediate): Toxic if swallowed. Causes digestive tract burns.

Components	Acute	Species	Test Results
1-decanaminium, n,n-dimethyl-n-octyl-, Chloride (CAS 32426-11-2)	Dermal, LD50 Oral, LD50		3342 mg/kg 238 mg/kg
1-octanaminium, N,n-dimethyl-n-octyl-, Chloride (CAS 5538-94-3)	Dermal, LD50 Oral, LD50		3342 mg/kg 238 mg/kg
Didecyl dimethyl ammonium Chloride (CAS 7173-51-5)	Dermal, LD50 Oral, LD50	Rat Rat	3342 mg/kg >1000 mg/kg 238 mg/kg 329 mg/kg
Ethanol (CAS 64-17-5)	Inhalation, Vapor, LC50 Oral, LD50	Rat Rat	117 - 125 mg/l, 4 h 10470 mg/kg
Quaternary Ammonium Compounds, Benzyl-C12-C16- alkyldimethyl, Chlorides (CAS 68424-85-1)	Dermal, LD50 Oral, LD50		3560 mg/kg 430 mg/kg

Information on toxicological effects: Acute toxicity. Harmful if swallowed. May cause respiratory irritation. Causes severe skin burns and serious eye damage.

Respiratory Sensitization: Not a respiratory sensitizer.

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

Germ cell 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.

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

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Chronic Effects: Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Very toxic to aquatic life with long lasting effects. Avoid release of unused, concentrated product into the environment.

Components	Aquatic	Species	Test Results
1-decanaminium, n,n-dimethyl-n-octyl-, Chloride (CAS 32426-11-2)	Acute, Fish, LC50	Bluegill (Lepomis macrochirus)	0.032 mg/l, 96 h
	Chronic, Crustacea, NOEC	Daphnia	0.01 mg/l
1-octanaminium, N,n-dimethyl-n-octyl-, Chloride (CAS 5538-94-3)	Acute, Fish, LC50	Bluegill (Lepomis macrochirus)	0.032 mg/l, 96 h
	Chronic, Crustacea, NOEC	Daphnia	0.01 mg/l
Didecyldimethylammonium Chloride (CAS 7173-51-5)	Algae, EC50	Algae	0.062 mg/l, 72 h
	Crustacea, LC50	Daphnia	0.057 mg/l, 48 h
	Crustacea, NOEC	Daphnia	0.021 mg/l, 21 d
Ethanol (CAS 64-17-5)	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
	Acute, Algae, EC50	Algae	675 mg/l, 72 h
Quaternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides (CAS 68424-85-1)	Acute, Crustacea, EC50	Daphnia	5012 mg/l, 48 h
	Acute, Fish, LC50	Fathead minnow (Pimephales promelas)	14200 mg/l, 96 h
	Chronic, Crustacea, NOEC	Daphnia	9.6 mg/l, 9 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

Persistence and biodegradability: 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 product. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

See section 8.

Disposal Instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. 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.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/unused products: Dispose of 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 (see: Disposal instructions).

Contaminated packaging: 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.

14. TRANSPORT INFORMATION

DOT (US):

For <1.3 gallon containers, this product is considered as "Limited Quantity" and is not regulated by DOT.

For >1.3 gallon containers: UN1903, Disinfectants, liquid, corrosive n.o.s. (Quaternary Ammonium Compound), 8, PGIII.

Reportable Quantity (RQ): N.A.

Poison Inhalation Hazard: No

Ground transport only. Do not ship via air.

15. REGULATORY INFORMATION

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 Status: While all ingredients are listed on the TSCA Chemical Inventory, this product is regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA Inventory rules for FIFRA uses. See section 2 of this SDS.

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

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

SARA 302 Components (Extremely Hazardous Substances): This product and its ingredients are not subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 Emergency release notification: Not regulated.

SARA 313 Components: Not listed

SARA 311/312 Hazards: Acute (Immediate) Health Hazard.

CERCLA Hazardous Substance List (40 CFR 302.4): Ethanol (CAS 64-17-5)

16. OTHER INFORMATION

HMIS & NFPA Ratings: Health = 3 Fire = 0 Reactivity = 0

HMIS & NFPA ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstract Service

EPA = Environmental Protection Agency

FIFRA = Federal Insecticide, Fungicide & Rodenticide Act (administered by EPA)

GHS = Globally Harmonized System

HCS = Hazard Communication Standard

LC = Lethal Concentration

LD = Lethal Dose

NIOSH = National Institute for Occupational Safety & Health

NOEC = No Observed Effect Concentration = the highest concentration of the toxicant tested which has no effect on the organisms exposed to it

NOEL = No Observed Effect Level

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit

RTECS = Registry of Toxic Effects of Chemical Substances

STEL = Short Term Exposure Limit (based on 15-minute exposures)

TC = Toxic Concentration

TLV = Threshold Limit Values

TWA = Time Weighted Average limit or ceilings (C) (exposure limit) (based on 8 hour/day, 40 hour/week exposures)

DISCLAIMER: The information contained herein is based upon data obtained from sources believed to be reliable and reflects our best professional judgment. Since it is impossible to anticipate all of the conditions under which our products may be used, we do not guarantee that the recommendations will be adequate for all individuals and situations. Each user of this product should determine the suitability of the product for his or her particular purpose and should comply with all federal, state and local regulations. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. We shall not be held liable for any damage resulting from handling or from contact with the above product or from improper use of our products. We do not provide any warranties, expressed or implied, and do not assume any responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. We update SDS and labels on a regular basis. Please do not hesitate to contact us for current information.

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