SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CLEAR GLASS Ammoniated Window & Glass Cleaner

Product Number: 9643 (and other versions of 9643)

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

Arcot Customer Service Telephone: 713-413-9700

Website: www.ArcotManufacturing.com

Recommended Use: Window and glass cleaner, hard surface cleaner

Restrictions On Use: Do not use on tinted glass, wood and other sensitive or untested surfaces. Do not mix with

other chemicals.

2. HAZARDS IDENTIFICATION

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

Hazard Classification:

Skin corrosion/irritation – Category 3 Eye damage/irritation – Category 2A

Specific target organ toxicity, single exposure - Category 3 (Central Nervous System)

Signal Word: WARNING



Hazard Statements:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Precautionary statements:

Prevention:

P261: Avoid breathing fumes, gas, mist, vapors and spray.

P264: Wash skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves, protective clothing and eye protection or face protection.

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.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P352 + P364 + P332 + P313: IF ON SKIN (or hair): Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice.

P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell.

Storage:

P233: Keep container tightly closed. P403: Store in a well-ventilated place.

P405: Store locked up.

Disposal:

P501: Dispose of contents and container to an approved waste disposal plant in accordance with applicable local, state, federal and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	Concentration
Water	7732-18-5	Proprietary
Isopropyl Alcohol	67-63-0	Proprietary
Other ingredients are nonhazardous and/or considered trade		
secrets or are present as residual amounts at less than 1%. The		
exact percentage of composition has been withheld as a trade		
secret. This SDS is used for a group of substantially similar mixtures.		

4. FIRST-AID MEASURES

<u>General advice</u>: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

<u>If inhaled</u>: Move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

<u>In case of skin contact</u>: Take off contaminated clothing and shoes immediately. Wash skin with soap and plenty of water. Consult a physician. Wash contaminated clothing before reuse.

<u>In case of eye contact</u>: Immediately and thoroughly flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If easy to do, remove contact lenses. Continue rinsing eyes and consult a physician, preferably an ophthalmologist.

<u>If swallowed</u>: Never give anything by mouth to an unconscious person. If conscious and alert, rinse mouth with water. Do not induce vomiting. Consult a physician or poison control center immediately.

<u>Most important symptoms and effects, both acute and delayed</u>: Causes serious eye irritation. May cause drowsiness or dizziness. May cause irritation if inhaled. May irritate skin.

<u>Treatment</u>: Treat symptomatically. If any irritation or symptoms persists, seek medical attention immediately.

5. FIRE-FIGHTING MEASURES

<u>Specific hazards that may develop from this product during fire</u>: Hazardous decomposition and byproducts may include carbon oxides (such as carbon monoxide and carbon dioxide) and toxic and irritating fumes.

<u>Suitable extinguishing media</u>: 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 direct water stream. May spread fire.

<u>Advice for firefighters</u>: Wear self-contained breathing apparatus and full protective clothing in case of fire. In spill situations, wear chemical protective clothing. Keep unauthorized personnel away. Evacuate residents who are downwind of fire.

<u>Precautions for firefighters</u>: Use water spray to keep fire-exposed containers cool.

General advice: Do not mix with other chemicals.

6. ACCIDENTAL RELEASE MEASURES

<u>Personal precautions, protective equipment and emergency procedures</u>: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. See section 8 for personal protection. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Spilled material may cause a slipping hazard.

Methods and materials for containment and cleanup procedures:

<u>Large Spills</u>: Stop the flow of material, if this is safe. Completely contain spilled material with dikes, sandbags, etc., where this is possible. Spilled material may be removed with a vacuum truck. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Following product recovery, flush area with water.

<u>Small Spills</u>: Absorb spill with vermiculite or other inert material. 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.

<u>Environmental precautions</u>: Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Discharge into the environment must be avoided.

7. HANDLING AND STORAGE

<u>Precautions for safe handling</u>: See Sections 2 and 8. Read the SDS and label carefully and completely before handling this product. 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. 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.

<u>Conditions for safe storage</u>: Keep containers tightly closed, properly labeled and upright to prevent leakage. Store in corrosive resistant containers. 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. Containers which are opened must be carefully resealed. Do not mix with other chemicals. Store away from incompatible materials (see section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters/permissible concentrations:

Isopropyl Alcohol (CAS# 67-63-0)	OSHA PEL	ACGIH TLV	NIOSH
STEL	500 ppm or 1225 mg/m ³	400 ppm	500 ppm or 1225 mg/m ³
TWA	400 ppm or 980 mg/m ³	200 ppm	400 ppm or 980 mg/m ³

<u>Appropriate engineering controls</u>: Provide sufficient mechanical ventilation to maintain airborne levels below recommended exposure limits.

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: Natural rubber, Neoprene or Nitrile with minimum layer thickness of 0.11 mm and break through time of 480 minutes.

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.

<u>General Industrial Hygiene Considerations</u>: Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Handle in accordance with good industrial hygiene and safety practices.

<u>Environmental Exposure Controls</u>: Follow best practice for site management and disposal of waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form: liquid

Color: clear blue or other colors

Odor ammonia

Odor Threshold No data available

pH 9

Freezing point No data available Initial boiling point No data available

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 (8.3 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.

<u>Chemical stability</u>: Stable under recommended storage conditions.

<u>Possibility of hazardous reactions</u>: Hazardous polymerization does not occur.

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

<u>Incompatible materials</u>: Strong oxidizing agents, strong acids, aldehydes, chlorine, ethylene oxide, halogens, isocyanates.

<u>Hazardous decomposition products</u>: Carbon oxides (such as carbon monoxide and carbon dioxide) and toxic and irritating fumes. In the event of fire, see section 5.

11. TOXICOLOGICAL INFORMATION

Component Information:

Isopropyl Alcohol (CAS# 67-63-0)	Acute Oral Toxicity: LD50, Rat: 5,045 mg/Kg
	Acute Inhalation Toxicity: LC50, Rat: 16,000 ppm
	Acute Dermal Toxicity: LD50, Rabbit: 12,800 mg/Kg

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

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation

Acute (Immediate): May cause drowsiness or dizziness.

Skin

Acute (Immediate): May cause skin irritation or allergic skin reaction in susceptible persons. May cause dryness of skin.

Eye

Acute (Immediate): Causes irritation. If not treated immediately, may cause eye damage. Ingestion

Acute (Immediate): May cause headache, dizziness, tiredness, nausea and vomiting. Aspiration of the swallowed or vomited product can cause severe pulmonary complications.

Information on toxicological effects: Acute toxicity. Harmful if inhaled or swallowed.

Germ cell mutagenicity: No data available

Carcinogenicity: This product is not classified as a carcinogen by NTP, IARC, ACGIH or OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: Central Nervous System

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: Not available

12. ECOLOGICAL INFORMATION

Aquatic toxicity: no data available for this product. In concentrated form, this product may be harmful to aquatic organisms. Avoid release of unused, concentrated product into the environment.

Component Information:

	Toxicity to fish: LC50, Pimephales promelas (fathead minnow): > 1,000 mg/l,
Isopropyl Alcohol	exposure time 96 hours
(CAS# 67-63-0)	Toxicity to aquatic invertebrates: LC50, Daphnia magna (Water flea): > 100 mg/l,
	exposure time 48 hours

Biodegradation: no data available for this product. The majority of the organic make-up of this product is considered biodegradable. Inorganic material are not subject to biodegradation.

Persistence: no data available for this product. The ingredients of most of this mixture are believed to either be biodegradable or exist in the disassociated state in the environment.

Bioaccumulative potential: no data available for this product. Based on ingredient studies, this product is not expected to bioconcentrate in organisms.

Mobility in soil: no data available for this product.

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 such as HDPE containers through a licensed disposal company. Do not allow this material to drain into sewers or water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents and container in accordance with local, regional, national and international regulations.

Contaminated packaging: If emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT (US): Not regulated by DOT.

Reportable Quantity (RQ) (based on 49CFR, APPENDIX A TO §172.101—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES): None required

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.

SARA 302 Components (Extremely Hazardous Substances)

None of the ingredients are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: Not listed

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

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed

16. OTHER INFORMATION

HMIS & NFPA Ratings: Health = 1 Fire = 1 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

GHS = Globally Harmonized System

HCS = Hazard Communication Standard

LD = Lethal Dose

NIOSH = National Institute for Occupational Safety & Health

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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