

2/9/16

# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name & Number:

Lemon Plus Neutral  
Disinfectant, ARCOT

Pine Plus Neutral Quat Disinfectant #9688, or  
Lemon Plus Neutral Quat Disinfectant #9689, or  
Mint Plus Neutral Quat Disinfectant #9690

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045  
Arcot Customer Service Telephone: 713-413-9700  
Website: [www.ArcotManufacturing.com](http://www.ArcotManufacturing.com)

Recommended Use: Hard surface disinfectant, cleaner, detergent, fungicide, mildewstat, virucide and deodorizer

Restrictions On Use: Do not use this product to clean, sanitize or disinfect utensils, glassware, dishes or interior surfaces of appliances. Refer to label for other restrictions on use.

## 2. HAZARDS IDENTIFICATION

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

Hazard Classification:

- Acute toxicity, oral – Category 3
- Acute toxicity, inhalation – Category 4
- Specific target organ systemic toxicity - repeated exposure, inhalation - Category 2
- Skin corrosion/irritation - Category 1B
- Skin irritation – Category 2
- Skin sensitization – Category 1
- 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** (Please note that the label is regulated by EPA and FIFRA.)



Hazard Statements:

- H302: Harmful if swallowed or if inhaled. (Category 4)
- H314: Causes severe skin burns and eye damage. (Category 1)
- H315: Causes skin irritation. (Category 2)
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage. (Category 1)
- H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
- 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).

Other Hazards: Slipping hazard.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Ingredients   | CAS #       | Concentration |
|---|-------------|---------------|
| Water   | 7732-18-5   | > 50%         |
| Didecyldimethylammonium Chloride  | 7173-51-5   | < 1.5%        |
| Quaternary Ammonium Compounds,<br>Benzyl-C12-C16-alkyldimethyl, Chlorides   | 68424-85-1  | < 1%          |
| Ethanol   | 64-17-5     | < 1%          |
| Nonylphenol polyethylene glycol ether   | 127087-87-0 | < 5%          |
| Ethylenediaminetetraacetic acid, tetrasodium salt   | 64-02-8     | < 1%          |
| Fragrance (Pine, Lemon or Mint)   |             | < 1%          |
| Other ingredients are nonhazardous, considered trade secrets or are residual levels at < 0.1%. 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**

**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.

**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. Prolonged exposure may cause chronic effects. 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. If any irritation or symptoms persists, seek medical attention immediately.

#### **5. FIRE-FIGHTING MEASURES**

Specific hazards that may develop from this product during fire: 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 alkalis, acids 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 <sup>3</sup> | 1000 ppm        | 1900 mg/m <sup>3</sup> |

**Appropriate engineering controls:** 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.

**General Industrial Hygiene Considerations:** 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

|       | Pine Plus #9688 | Lemon Plus #9689 | Mint Plus #9690 |
|-------|-----------------|------------------|-----------------|
| Color | Clear green     | Clear yellow     | Clear green     |
| Odor  | Pine            | Citrus           | Mint            |

|  |  |
|--|--|
| Odor Threshold                               | No data available                                  |
| pH   | 6-8  |
| Freezing point                               | approximately 32°F                                 |
| Initial boiling point                        | approximately 212°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 (8.3 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.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

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

Incompatible materials: Strong oxidizing agents. Strong reducing agents.

Hazardous decomposition products: 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 neutral 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): May cause damage to organs through prolonged or repeated exposure by inhalation. Prolonged inhalation may be harmful.

Skin

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

Eye

Acute (Immediate): Corrosive to eye tissue. 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.

Chronic (Delayed): Repeated or prolonged exposure may cause gastrointestinal disturbances and damage to organs.

Information on toxicological effects: Acute toxicity. Harmful if swallowed. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed. Causes severe skin burns and serious eye damage.

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

Specific target organ toxicity - single exposure: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: No data available

Additional Information: RTECS: Not available

## **12. ECOLOGICAL INFORMATION**

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

Biodegradation: This product is believed to be biodegradable.

Persistence: no data available for this product. Most of the ingredients 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: 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.

Do not allow this material to drain into sewers or water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of contents and container in accordance with local, regional, national and international regulations.

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): Not regulated by DOT.

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.

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.

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.



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 listed.

SARA 313 Components: Not listed

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

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

## **16. OTHER INFORMATION**

HMIS & NFPA Ratings: Health = 2 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

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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