Purogene® is a highly refined blend of oxychloro species containing purified sodium chlorite. When activated, chlorine dioxide is produced, greatly enhancing Purogene®’s antimicrobial activity. Purogene® displays broad spectrum antimicrobial activity, proven effective against *E. Coli O157:H7*, *Salmonella*, *Listeria*, *Staphylococcus*, *Aspergillus*, and *Pseudomonas*, *Legionella* among others. This product is especially suited for the removal and subsequent control of biofilm.

Purogene® has been shown to be more effective than other common sanitizers including quaternary ammonia, iodophors, Peracetic acid and sodium hypochlorite (chlorine). Purogene® provides a comprehensive antimicrobial intervention program. Purogene® has major advantages in providing long term residual antimicrobial effect over Ozone and Peroxide based products that are short-lived in systems with organic load.

**Distributed by:**

AEROSAFE
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**Benefits**

- Ultra high, broad spectrum antimicrobial activity
- Uniquely effective against biofilm
- Effective over a broad pH range (1-10)
- Low corrosion potential at use concentrations
- Does not chlorinate (no THM formation)
- Long lasting bacteriostatic activity
- No effect on organoleptic properties
- Economical to use
- Extends the life of on-board water heating and coffee making equipment
- Maintains lavatory systems free of sludge and organic build-up
- Can be used with automated delivery systems
- Approved for use by most major airframe manufacturers

**Product Specifications**

- Concentration: 2.0 - 2.10% available chlorine dioxide
- Appearance: Colorless liquid
- pH Concentrate: of 8.2 - 8.5
- Boiling point: 213°F (100.5°C)
- Melting point: n/a
- Freezing point: 28.9°F (-1.72°C)
- Vapor Pressure: 23.7 mm Hg (25°C)
- Vapor Density: 0.02 kg/m3
- Specific Gravity: 1.03 g/ml (20°C)
- Volatiles (by volume): 97% water
- Solubility in water: Complete
- Evaporation rate: Comparable to water
- Very low acute toxicity (EPA Cat III)
- Non-Flammable • Non-Explosive • Stable Solution
- NFPA Rating: Fire: 0 Health: 1 Reactivity: 1 Special: None

**Calculation Chart**

<table>
<thead>
<tr>
<th>Package</th>
<th>Purogene</th>
<th>Citric Acid</th>
<th>Volume Treated</th>
<th>ClO₂ ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Quart</td>
<td>32oz</td>
<td>4 oz</td>
<td>50 Gallons</td>
<td>100 ppm</td>
</tr>
<tr>
<td>1 Gallon</td>
<td>128 oz</td>
<td>16 oz</td>
<td>200 Gallons</td>
<td>100 ppm</td>
</tr>
<tr>
<td>12 Quart Case</td>
<td>3 Gallons</td>
<td>48 oz</td>
<td>600 Gallons</td>
<td>100 ppm</td>
</tr>
<tr>
<td>4 Gallon Case</td>
<td>4 Gallons</td>
<td>64 oz</td>
<td>800 Gallons</td>
<td>100 ppm</td>
</tr>
<tr>
<td>5 Gallon Pail</td>
<td>5 Gallons</td>
<td>80 oz</td>
<td>1000 Gallons</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

**WATER TANK DISINFECTION**

1) Drain water storage tank.
2) Inspect tank for foreign materials and sediment.
3) Clean out and flush tank with clean potable water.
4) For each 50 gallons of disinfection solution, mix the following:
   - 16 fluid ounces of Purogene®
   - 2 ounces of citric acid
   - mix and allow 5 minutes for activation to occur
   - Dilute activated concentrate with two gallons of clean potable water.
5) Fill aircraft water tank
6) Open all water discharge ports for a short time to allow the treatment solution to reach and flow through these ports.
7) Close ports and allow treatment solution to stand for one hour.
8) Drain solution from tank. DO NOT FLUSH TANK.
9) Refill tank with potable water treated with 5ppm Purogene®.

This procedure can be automated using BCI’s delivery systems (see below)

These systems provide hands-free activation and dosing of Purogene®. Three configurations of the PASS System are available:

1. Potable Water Treatment - This unit combines Purogene® and activator at the appropriate ratio for potable water treatment (5 ppm)
2. Water Tank Disinfection - This unit combines Purogene® and activator at the appropriate ratio for water tank disinfection (50 – 100 ppm)