**Quat Plus**
**Liquid Disinfectant**

**Germicides**

**Effective against influenza A (H1N1)**

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**SECTION I ► PRODUCT IDENTIFICATION**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Type</th>
<th>WHMIS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quat Plus</td>
<td>Liquid Disinfectant</td>
<td>Exempt</td>
</tr>
</tbody>
</table>

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**SECTION II ► HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Cas Registry No.</th>
<th>%</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>N,N-DIALKYL-N,N-dimethyl ammonium chloride</td>
<td>68424-95-3</td>
<td>1-5</td>
<td>LD₄₅ &lt;sub&gt;ORAL (RAT)&lt;/sub&gt; 455 mg/kg</td>
</tr>
</tbody>
</table>

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**SECTION III ► PHYSICAL DATA**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Odour</th>
<th>pH</th>
<th>Boiling Point</th>
<th>Specific Gravity</th>
<th>Solubility in Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear colourless liquid</td>
<td>Unscented</td>
<td>10.5</td>
<td>100 °C</td>
<td>1.0</td>
<td>100 %</td>
</tr>
</tbody>
</table>

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**SECTION IV ► FIRE AND EXPLOSION HAZARD DATA**

<table>
<thead>
<tr>
<th>Flash Point (°C):</th>
<th>None</th>
<th>Extinguishing media:</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special fire fighting procedures:</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unusual fire and explosion hazards:</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**SECTION V ► TOXICOLOGICAL PROPERTIES**

HAZARD RATING:
- Health = 1
- Flammability = 0
- Reactivity = 0

- Swallowing: Slightly Toxic
- Inhalation: Not Applicable
- Skin Absorption: Unknown
- Skin Contact: May cause irritation
- Eye Contact: Irritant
- Special Warning: None

**Rating System**
- 0 = Insignificant
- 1 = Slight
- 2 = Moderate
- 3 = High
- 4 = Extreme

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**SECTION VI ► FIRST AID MEASURES**

- Ingestion: Promptly drink large quantities of milk, egg whites, gelatin or water. Avoid alcohol. Call a physician immediately.
- Inhalation: Not Applicable
- Skin: Flush thoroughly with water for at least 15 minutes. Remove and wash contaminated clothing.
- Eyes: Flush thoroughly with water for at least 15 minutes. Call a physician.

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**SECTION VII ► REACTIVITY DATA**

- Stable: Yes
- Conditions to avoid: None
- Incompatibility with other materials: None
- Hazardous decomposition products: None
- Hazardous polymerization: Will not occur.

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**SECTION VIII ► PREVENTIVE MEASURES**

- Hand protection: Gloves made of neoprene, rubber, polyvinyl chloride, Viton or nitrile.
- Eye protection: Safety glasses with side shields.
- Ventilation: General
- Respiratory protection: None
- Other protective equipment: In case of spills, wear chemical resistant apron and boots.
- Steps to be taken in case material is released or spilled: Mop up spillage. Rinse spill area with water and allow to dry.
- Waste disposal method: Flush with water into waste systems in accordance with municipal, provincial and federal regulations.
- Precautions to be taken in handling and storage: Normal handling processes. Inside storage at 4-40 °C recommended.
- Other precautions: Follow label use instructions.

**UN: Not Applicable**
**TDG Class:** None
**Packing Group:** Not Applicable
**TDG Emergency Telephone Number:** 613-996-6666 (COLLECT)

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**SECTION IX ► PREPARATION DATA**

- Prepared by: M. Mikoluk
- Last updated: June 1, 2015
- Location: Dustbane Products Limited, 25 Pickering Place, Ottawa, Ontario, K1G 5P4 – 613-745-6861
“This quat-based disinfectant cleaner kills a broad spectrum of bacteria, virus and fungi without the harsh smell of chemicals.”

**Features and Benefits**

**Reduced environmental impact:** ECOLOGO Certified UL 2794 - Disinfectants and Disinfectant Cleaners.

**Multiple claims:** Effectively destroys a broad range of bacteria, fungi and viruses including: Pseudomonas aeruginosa, Salmonella choleraesuis, Staphylococcus aureus, HIV-1 and Trichophyton mentagrophytes.

**Dual purpose:** Cleans and disinfects.

**WHERE TO USE**

Formulated for use in health care, food processing facilities, schools, offices and public areas. It may be used to disinfect all hard, non-porous surfaces including walls, floors, tubs, sinks, counter tops, garbage pails, furniture etc.

**HOW TO USE**

Preclean heavily soiled surfaces before using Quat Plus. Dilute with unheated tap water according to the dilution rates listed below. Apply the solution with a sponge, mop or cloth. Allow 10 minutes contact time for complete disinfection.

**Dilution rates:**

- Disinfection/ECOLOGO (Certified UL 2794): 1:80
- All purpose: 1:120
- Regular cleaning: 1:256
- Heavy cleaning: 1:40
- Auto-scrubber: 1:256

*Note: Adjust dilution rates to suit your cleaning needs.*

**Mold and mildew:** When mixed at a rate of 1:80, QUAT PLUS effectively inhibits the growth of odour-causing mold and mildew. Apply the solution and allow it to dry on the treated surface. Repeat treatment when mold or mildew returns.

**Disinfecting:** Allow a minimum contact time of 10 minutes in a single application. Surfaces subject to direct food contact should be adequately rinsed with potable water. Heavily soiled surfaces must be precleaned.

**HIV-1:** When mixed at a rate of 1:80, QUAT PLUS may be used to disinfect and decontaminate hard surfaces exposed to blood or other body fluids that contain the HIV-1 virus. Thoroughly clean all hard surfaces removing blood and body fluids prior to disinfection. Allow surfaces to remain wet for a minimum of 4 minutes. Wear protective clothing including latex gloves, gown, mask and eye goggles. Blood, body fluids, cleaning materials and clothing should be autoclaved and disposed of according to local regulations. [Note: efficacy testing was done in the presence of hard water (400 ppm as CaCO₃) and a soil load (5% blood serum)].

**Specifications**

- N,N-Dialkyl-N,N-dimethyl ammonium chloride: 4.8%
- Inert ingredients: 95.2%
- pH, concentrate @ 25°C: 10.5
- pH, at 1:80 @ 25°C: 9.0-9.5
- Colour: Colourless
- Odour: Unscented
- DIN#: 02298694
- CFIA: Yes

Quat Plus is an effective bactericide, fungicide and virucide as demonstrated by the following support data:

a) CLAIM - DISINFECTANT - AOAC USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water).
   - Pseudomonas aeruginosa ATCC# 15542 10 0/10
   - Staphylococcus aureus ATCC# 6538 10 0/10
b) CLAIM - DISINFECTANT - AOAC USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).
   - Salmonella enterica ATCC# 10708 10 0/10
c) CLAIM - FUNGICIDE - AOAC FUNGICIDAL USE - DILUTION TEST AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).
   - Trichophyton mentagrophytes ATCC# 9533 10 0/10
d) CLAIM - VIRUCIDE - EPA VIRUCIDAL EFFICACY OF A DISINFECTANT FOR USE ON INANIMATE ENVIRONMENTAL SURFACES AT 600 ppm (dilution ratio of 1:80 in 250 ppm hard water and 5% organic soil).
   - HIV type 1 Strain HTLV III Titer reduction ≥ 3.5 log₁₀
   - HIV type 1 Strain HTLV III Titer reduction ≥ 3.5 log₁₀

**HIV-1 Strain HTLV III Titer reduction ≥ 3.5 log₁₀**