### Material Safety Data Sheet (MSDS)

**Pinosan**  
*General Purpose Germicidal Cleaner*

#### Section I: Product Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Type</th>
<th>WHMIS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinosan</td>
<td>General Purpose Germicide Cleaner</td>
<td>Exempt</td>
</tr>
</tbody>
</table>

#### Section II: Hazardous Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Cas Registry No.</th>
<th>% Toxicity</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Dimethyl Benzyl Ammonium Chloride</td>
<td>68424-85-1</td>
<td>0.1-1.0</td>
<td>LD50 ORAL (RAT) 366 mg/kg</td>
</tr>
<tr>
<td>Didecyl Dimethyl Ammonium Chloride</td>
<td>7173-51-5</td>
<td>1-5</td>
<td>Not available</td>
</tr>
</tbody>
</table>

#### 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 green liquid</td>
<td>Scented</td>
<td>7.2</td>
<td>100 °C</td>
<td>1.0</td>
<td>100 %</td>
</tr>
</tbody>
</table>

#### Section IV: Fire and Explosion Data

- **Flash Point (°C):** None  
- **Extinguishing media:** Not Applicable
- **Special fire fighting procedures:** None
- **Unusual fire and explosion hazards:** None

#### Section V: Toxicological Properties

<table>
<thead>
<tr>
<th>Hazard Rating</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Rating System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0 = Insignificant</td>
</tr>
</tbody>
</table>

- **Swallowing:** Slightly Toxic
- **Inhalation:** Not Applicable
- **Skin Absorption:** Unknown
- **Skin Contact:** Slight to Moderate Irritant
- **Eye Contact:** Irritant
- **Special Warning:** None

#### 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. Call a physician.
- **Eyes:** Flush thoroughly with water for at least 15 minutes. Call a physician.

#### Section VII: Reactivity Data

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

#### Section VIII: Preventive Measures

- **Hand protection:** Yes (Wear chemical resistant gloves)
- **Eye protection:** Yes (Wear 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)

#### 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

**Germicides**
“Offers a powerful cleaning, deodorizing and disinfecting performance. Its neutral quat formula has a broad spectrum of efficacy against bacteria, fungi and viruses and leaves a pleasant pine fragrance.”

**Features and Benefits**

**Environmentally friendly:** A.P.E. free.

**Neutral quat:** Preserves the floor finish appearance.

**Excellent cleaning abilities:** Handles heavy duty cleaning on hard non-porous surfaces.

**Multiple claims:** Effectively destroys a broad range of bacteria, fungi and viruses including: Pseudomonas aeruginosa, Staphylococcus aureaus, Salmonella choleraesuis, Trichophyton mentagrophyte, Influenza A/Hong Kong, Vaccinia.

**Pine fragrance:** Leaves the area smelling fresh and clean.

**Where to use**

For use on hard non-porous surfaces such as floors, walls, furniture, sinks, tubs, toilets, garbage pails, counter tops, metal and plastic surfaces.

PINOSAN is intended for use in veterinary clinics, laboratories, hospitals, dental clinics, nursing homes, food processing facilities and federally inspected meat, poultry and fish establishments.

Surfaces subject to direct food contact should be adequately rinsed with potable water.

**How to use**

Dilute according to the dilution rates mentioned below in potable water. Apply using a mop, sponge, cloth or trigger sprayer. Heavily soiled surfaces must be cleaned prior to disinfection. Apply diluted solution to wet the surface thoroughly. For disinfection, allow to remain wet for 10 minutes then remove excess liquid. To remove mold and mildew, apply the solution and allow it to dry on the treated surface.

**HIV-1:** When mixed at a rate of 1:40, Pinosan may be used to clean 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.

**Recommended dilution rates:**

- **Disinfection** ....................................................................................................................... 1:40
- **Normal cleaning** ............................................................................................................. 1:40-1:80
- **Heavy duty cleaning** ...................................................................................................... 1:20-1:40
- **Mold and mildew** ............................................................................................................. 1:40

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

(Note: efficacy testing was done in the presence of hard water (400 ppm as CaCO₃) and a soil load (5% blood serum)).

**Specifications**

- **Didecyl dimethyl ammonium chloride:** 1.44%
- **n-Alkyl (50% C14, 40% C12, 10% C16); dimethyl benzyl ammonium chloride:** 0.96%
- **Inert Ingredients:** 97.6%
- **pH, concentrate @ 25°C:** 7.2 - 7.7 (neutral)
- **pH, at 1:80 @ 25°C:** 7.0 - 7.5
- **Colour:** Green
- **Odour:** Pine
- **DIN #:** 02213133
- **CFIA Approval:** Yes