Comparative data for Demand represents either treatment with Demand CS at a 9.7% concentration of lambda-cyhalothrin or treatment with Demand EZ at a 2.43% concentration of lambda-cyhalothrin. When applied according to label directions, Demand CS and Demand EZ yield equivalent results.

<table>
<thead>
<tr>
<th>DEMAND®</th>
<th>CYONARA™ 9.7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEMAND Insecticide has an advanced microencapsulated formulation</strong></td>
<td><strong>Non-microencapsulated “Sigma” technology – unprotected active ingredient (see Figure 1)</strong></td>
</tr>
<tr>
<td>Microencapsulation encloses the active ingredient in protective spheres that are suspended in water (see Figure 1)</td>
<td>Active ingredient exposed to environmental conditions resulting in limited residual activity</td>
</tr>
<tr>
<td>Optimal range of capsules provide controlled release and extended residual activity</td>
<td></td>
</tr>
<tr>
<td>Caution label</td>
<td>Warning label</td>
</tr>
<tr>
<td>Low to no odor</td>
<td>Strong odor</td>
</tr>
<tr>
<td>Can apply to interior areas where cattle or calves are present</td>
<td>Cannot apply to any area where animals are present</td>
</tr>
</tbody>
</table>

**Figure 1.**


**DEMAND is more cost-effective due to greater activity and longer residual**
- Because Demand is more active than Cyonara 9.7, the lower Demand application rates result in reduced costs.
- The greater stability of Demand microencapsulated formulation provides greater control and reduced callbacks.
**DEMAND is more active**

At the 0.015% application rate of Demand EZ, excellent activity against cockroaches observed out to 90 days after application (see Figure 2).

At the 0.015% application rate of Cyonara 9.7, activity against cockroaches was observed at 1 day after application, with a considerable decrease in activity at 30 days. No activity was observed at 41, 60 or 90 days (see Figure 2).

**Figure 2.**

Mortality (48 h) of American Cockroaches Exposed to Demand EZ and Cyonara 9.7

![Mortality Graph](image)

Mortality of American cockroaches after exposure to bricks* treated with Cyonara 9.7 and Demand EZ, University of Florida, 2007.

- Demand 0.015%
- Cyonara 0.015%
- Control

*Brics utilized for testing at 1, 41, 60 and 90 days were aged outdoors and exposed to ambient light. Brick conditions at 30 days were simulated by oven aging.

Although **DEMAND and Cyonara 9.7 both contain the active ingredient lambda-cyhalothrin**, the formulations are very different:

- Demand mixes easily, has excellent compatibility with application equipment and will not clog even fine mesh screens.
- In Demand, the lambda-cyhalothrin is enclosed within polymer spheres (microencapsulation) which protect the active ingredient from UV light, heat and moisture.
- The microcapsules of Demand are engineered to an optimal size range of between 5 and 22 microns.
- When Demand is applied, there are at least 10,000 microcapsules per square inch.
- With a range of capsule sizes for Demand, residual efficacy is increased, allowing for activity against insects at least 90 days after application.
- Once they contact an insect or arthropod cuticle, the microcapsules release the lambda-cyhalothrin rapidly, resulting in insect control within a few minutes.

In comparison, the lambda-cyhalothrin in Cyonara 9.7 is not protected by microcapsules. Therefore, the active ingredient degrades rapidly when exposed to environmental conditions.