What chemicals can clean our game balls without altering performance?

Our primary recommendation is to follow CDC, state and local guidelines for health and safety. The following widely accepted definitions are relevant to composite leather, PU leather, and leather game ball care (CDC reference):

<table>
<thead>
<tr>
<th>Definitions</th>
<th>Reduces # viruses</th>
<th>Eliminates 99% viruses</th>
<th>Eliminates 100% viruses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibacterial</td>
<td>X</td>
<td></td>
<td></td>
<td>bacteria ≠ virus</td>
</tr>
<tr>
<td>Antiviral</td>
<td>✓</td>
<td></td>
<td>not always</td>
<td></td>
</tr>
<tr>
<td>Antimicrobial</td>
<td>✓</td>
<td></td>
<td></td>
<td>virus is a microbe</td>
</tr>
<tr>
<td>Clean</td>
<td>✓</td>
<td></td>
<td></td>
<td>removes visible dirt/prepares surface</td>
</tr>
<tr>
<td>Disinfect</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanitize</td>
<td>✓</td>
<td></td>
<td>not always</td>
<td></td>
</tr>
<tr>
<td>Sterilize</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>appropriate for hospital settings</td>
</tr>
</tbody>
</table>

There are several different methods for sanitizing and disinfecting composite leather, PU leather, and leather game product. Each customer should utilize the method that fits their health and safety protocols and the playing environment and timing needs.

**Simple Game Ball Cleaning Method**

To clean the ball, players may wish to use dish soap and water. While this practice may be likened to hand washing, note that all soap residue must be rinsed away and that drying time on each ball product may vary. An example cleaning regimen with soap and water includes:

1. Add 1 tablespoon of mild dish soap into a 1-gallon container.
2. Fill bucket with warm water, until a soapy mixture is formed.
3. Wet a first towel with the solution, wring out excess water, and gently wipe down entire product surface for at least 30 seconds.
4. Re-wet towel with plain warm water, wring out excess water, and wipe off excess soap from ball surface.
5. Rub a second, dry towel on the surface to wipe and dry off.
6. Let product air out overnight.

**Quick Turn Leather Game Ball Cleaning Method**

To clean the ball with faster turnaround times, we reference the following recommendations. The CDC released a list (referred to as ‘List N’) of effective disinfectants for disabling SARS-CoV-2 (i.e., the virus that causes Covid-19 disease) on hard, nonporous surfaces.

Since our game balls are neither hard nor nonporous, we cannot assume that 99% of virus particles will be eradicated, but we believe the CDC’s list is a good starting point for greatly reducing virus particles.

It is critical to follow manufacturer and CDC recommendations for the correct application and contact time for each cleaning product to maximize efficacy against SARS-CoV-2. Please note that some products require a wetting time up to 10 minutes to be effective.
Further, we do not recommend using high concentrations of bleach or alcohol to disinfect our products because it can degrade the performance of the product. We also do not recommend using hand sanitizer, which can degrade product performance and is not on the CDC’s list N.

Another consideration in cleaning our game ball products is maintaining performance (e.g., grip, pebble, color) over multiple applications. We tested several List N cleaners (up to 5 applications in a 24-hour period) and found they had minimal or no effect on performance:

<table>
<thead>
<tr>
<th>Cover Material</th>
<th>Game Balls</th>
<th>CDC List N Disinfectants</th>
<th>EPA registration #</th>
</tr>
</thead>
</table>
| Composite Leather | Evo NXT Basketball  
Solution Basketball  
Evolution Basketball  
FIBA 3x3 Basketball  
OPTX Volleyball  
K1 Silver Volleyball | Lysol Clean & Fresh Multipurpose cleaner  
Lonza Disinfectant Wipes Plus  
BTC 2125 M 10% Solution  
Clorox Disinfecting Wipes | 777-89  
6836-336  
1839-86  
5813-79 |
| Leather      | NFL Duke Football  
K1 Gold Volleyball | BTC 2125 M 10% Solution | 1839-86 |
| PU Leather   | Forte II Soccer ball  
Vanquish Soccer ball | Clorox Disinfecting Wipes  
BTC 2125 M 10% Solution | 5813-79  
1839-86 |

While most of the products above can be easily found online for purchase by end consumers, we have identified two possible sources for BTC 2125 M 10% solution (EPA # 1839-86):

- For Individual Orders:
  - Key Supply Company – Warsaw Xtra, [link for online purchase](#), promo code [Wilson](#) for discount
- For Larger orders:
  - UNX Industries – Ally cleaning solution, contact [terry.hammond@unxinc.com](mailto:terry.hammond@unxinc.com)

Please note that the solvent based cleaners above may leave a residue on the ball or logos depending on method of application and amount used. The cleaning regimen with soap and water specified above may be used intermittently to prevent or reduce buildup of cleaner residue over time.

**Special Note on Leather Game Balls**

For leather game balls, recommendations are limited. Many CDC list N disinfectants we trialed dried out the leather and decreased performance. We are working on alternative solutions for leather goods, but a potential interim solution may be to disinfect the ball and then apply leather conditioner as a secondary step.

**Next Steps**

As coronavirus is an ever-changing situation, we are working to deepen our understanding of various disinfectants and procedures for disinfecting our products without affecting performance. We will share relevant updates with our customers as they become available.