

AI-02031 Calcium vs Espresso Machine

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Is calcium my enemy in my Breville machine even if I'm using bottled water? Is vinegar just okay to run the descaling?

Based on the information available, here's a detailed answer to your questions about your Breville machine and descaling:

Is calcium my enemy in my Breville machine even if I'm using bottled water?

Yes, calcium can still be a problem, even with bottled water. The issue is that not all bottled water is the same. While some bottled waters are low in minerals, others, particularly bottled "spring water," can still have significant levels of calcium and magnesium. These are the primary minerals that cause limescale buildup (also known as scale) inside your machine.

- Limescale is the enemy. It's a hard, chalky mineral deposit that can clog the internal pipes, valves, and heating elements of your Breville machine. This can lead to a decrease in water flow, poor temperature regulation, and eventually, machine failure.
- What to look for on the label: To determine if a bottled water is suitable, look at the "Total Dissolved Solids" (TDS) and mineral content on the label. The Specialty Coffee Association (SCA) recommends a TDS of 75-150 ppm for brewing. Some sources suggest specific brands like Volvic or Tesco Ashbeck as being low in minerals, but you should always check the label, as mineral content can vary.
- Distilled or Reverse Osmosis (RO) water is also not ideal. While these types of water are free of minerals and won't cause scale, they can cause other problems. Espresso machine sensors rely on the conductivity of minerals to function, and using water without them can lead to sensor malfunctions.

Additionally, the lack of minerals can result in a flat-tasting espresso and may even cause corrosion of the machine's metal parts over time.

In short, your goal is to find a middle ground: water with enough minerals for good taste and proper machine function, but not so many that it causes excessive scale buildup.

Is vinegar just okay to run the descaling?

Vinegar can be used, but it's not the best option and comes with a few risks. Many sources, including some Breville-related forums and articles, suggest a 1:1 mixture of white vinegar and water for descaling. However, there are some important considerations:

- **Corrosion risk:** Vinegar is a strong acid (acetic acid), and its corrosive properties can potentially damage the rubber seals, gaskets, and other delicate internal components of your machine over time. While a single use might not cause damage, frequent use could shorten your machine's lifespan.
- **Lingering taste and smell:** Vinegar has a very pungent odor and taste that can be difficult to completely rinse out of the machine. If you don't perform a very thorough rinsing, it can leave an unpleasant aftertaste in your coffee.
- **Effectiveness:** While vinegar is effective against mild mineral buildup, it may not be strong enough to dissolve severe or stubborn limescale deposits. The recommended alternative is a commercial descaling solution. Breville, like other manufacturers, sells its own descaling solution. These products are specifically formulated to be effective at dissolving scale without harming the internal parts of the machine. They are typically made with a gentler acid, such as citric acid, which is effective at descaling but less likely to cause corrosion or leave a lingering taste.

In conclusion: While you can use vinegar in a pinch, a commercial descaling solution is the safer and more effective option for the long-term health of your Breville machine and for ensuring your coffee tastes great.