MATT PERGER COFFEE WATER RECIPE

Recommend water recipe from Barista Hustle website - http://community.baristahustle.com/

Inspired by the Water for Coffee book. All you need is bicarb soda (baking soda, NOT baking powder), epsom salt (magnesium sulfate), and distilled water. All super cheap and readily available.

1. Add 8.6g bicarb (1.8 tsp ~ 1¾ tsp), and 25g epsom (6.629 tsp† ~ 6½ tsp) to 500g (2.11 cups) distilled water. This is your concentrate.
2. Shake the concentrate and make sure it's all dissolved.
3. Add 2g (.4 tsp ~ ½ tsp‡) of the concentrate to 500g distilled water. This is your brewing water.
4. Boil and brew!
5. Save the concentrate for future brews!"

† Assuming (because I cannot find conversion from grams epsom to tsp epsom – and I'm showing you my calculations just in case I'm way off and you can figure out where I went wrong and do it correctly for yourself):
Density of bicarb is 2.2 – per Wikipedia
Density of epsom (magnesium sulfate) is 1.73 – per Wikipedia for solid epsom
So, it takes more volume of epsom to get same weight of bicarb. Based on density, it takes 2.2/1.73 = 1.27 more epsom volume to get same weight of bicarb.

25g is 25/8.6 times as much as 8.6g. If it were bicarb, that would be 2.9 times as much bicarb. If 8.6g is 1.8 tsp††, then 25g is 2.9 * 1.8 tsp = 5.22 tsp of bicarb. But bicarb is denser than epsom so it takes a greater volume of epsom to get the same weight of bicarb. Specifically, it takes 2.2/1.73 = 1.27 greater volume of epsom to get the same weight as bicarb. Thus, it takes 1.27 * 5.22 tsp = 6.629 tsp of epsom which I will round down to 6.5 or 6½ tsp.

†† I used https://coolconversion.com/cooking-weight-volume/ to convert baking powder to teaspoons as it would not convert baking soda. Baking powder has a density of 2.16, baking soda has a density of 2.2. For purposes of these calculations I assume the volume of baking soda and baking powder are the same, though it is probably 1.872.

‡ I'm assuming the density of water and the solution are the same because this has already taken more time than I expected.