

A bleach solution that is 7.5 % (by mass) NaClO (molar mass = 74.5 g/mol) has a density of 1.2 g/mL. Calculate the molarity of a diluted sample of the bleach solution if the dilution factor is 18.

- 0.058
- 0.076
- 0.048
- 0.067
- 0.086

Next page

$$[1] = \text{NaClO} \% = \frac{M \cdot \text{M.w} \%}{P \cdot 10}$$

$$7.5\% = \frac{M \times 74.5\%}{1.2 \times 10}$$

$$\rightarrow M = 1.21$$

↳ original

$$\text{M of a diluted sample} = \frac{1.21}{18} = 0.067$$

What is the molar concentration of NaClO in 3.0 % by mass bleach sample? (molar mass of NaClO=74.44 g/mol, density of bleach solution= 1.08 g/ml).

- 1.02 M
- 0.87 M
- 0.58 M
- 0.44 M
- 0.73 M

[Clear my choice](#)

$$2 \quad 3.0\% = \frac{M \times 74.44\%}{1.08 \times 10}$$

$$M = 0.435$$

Which one of the following statements is correct concerning the bleach analysis experiment?

- The reaction of ClO^- and excess I^- in acidic media produces I_3^- ion, which has a red-brown color.
- Starch is used as an indicator for $\text{S}_2\text{O}_3^{2-}$ ion.
- $\text{S}_2\text{O}_3^{2-}$ is an oxidizing agent and is used to determine the concentration of I_3^- ion
- I^- acts as the oxidizing agent in the reaction of ClO^- and I^-

Next page