



Concentration of Solutions Questions

Vinegar is a solution of acetic acid and water.

The concentration of vinegar is typically 0.05g/cm^3 , this means that in every cm^3 of vinegar there is 0.05g of acetic acid.

$$\text{concentration} = \frac{\text{mass}}{\text{volume}}$$

1. Calculate the mass of acetic acid in 100cm^3 of vinegar with a concentration of 0.05g/cm^3 .

mass = _____ g
2. Explain what will happen to the concentration of the vinegar if 5g of acetic acid is added to 50cm^3 of water.
3. Calculate the mass of acetic acid in 50cm^3 of vinegar with a concentration of 0.0375g/cm^3 .
Give your answer to **2** significant figures.

mass = _____ g
4. Calculate the mass of acetic acid in 0.2dm^3 of vinegar with a concentration of 0.025g/cm^3 .

mass = _____ g
5. Explain what will happen to the concentration of the vinegar if we increase the mass of acetic acid in the solution.