

Answer on Question #49193, Chemistry, Other

Task:

A 100 ml solution contains 4.7 g MgCl (M=94 g/mol). The density of the solution is 1.03 g/ml. Express the concentration of the solution in: b) M

Answer:

$$C_M(\text{MgCl}) = \frac{v(\text{MgCl})}{V(\text{MgCl})}$$

$$v(\text{MgCl}) = \frac{m(\text{MgCl})}{M(\text{MgCl})} = \frac{4,7}{94} = 0.05 \text{ mol}$$

$$C_M(\text{MgCl}) = \frac{0.05}{0.1} = 0.5 \text{ M}$$