

What mass of NaCl is needed to produce 500 mL of a 2.0 mol/L solution?

Using this data we can calculate quantity of NaCl solution (mol)

$$v = c * V$$

$$v = 2 * 0.5 = 1 \text{ mol}$$

Mass (g) can be calculated using following equation :

$$m = v * M$$

$$m(\text{NaCl}) = 58.5 * 1 = 58.5 \text{ g}$$

$$\mathbf{m(\text{NaCl})=58.5 \text{ g}}$$