

Answer on Question 78445 in General Chemistry

$$.m(\text{NaCl}) = 6 \text{ g}$$

$$Mr(\text{NaCl}) = 58.5$$

$$Ar(\text{Cl}^-) = 35.5$$

$$.m(\text{Cl}^-) = ?$$

Let's find the amount of substance of NaCl

$$.n(\text{NaCl}) = \frac{m(\text{NaCl})}{Mr(\text{NaCl})} = \frac{6}{58.5} = 0.103 \text{ mol}$$

$$.n(\text{Cl}^-) = n(\text{NaCl}) = 0.103 \text{ mol}$$

$$.m(\text{Cl}^-) = n(\text{Cl}^-) \times Ar(\text{Cl}^-) = 35.5 \times 0.103 = 3.66 \text{ g}$$

Answer provided by AssignmentExpert.com