

Answer on Question #70981, Chemistry / General Chemistry :

How many moles of HCl are in 45mL of 0.3 M HCl.

Solution.

$$V(\text{HCl}) = 45\text{ml} = 0.045\text{l}$$

$$C(\text{HCl}) = 0.3\text{M}$$

$$v(\text{HCl}) = ?$$

Molar concentration:

$$C(\text{HCl}) = \frac{v(\text{HCl})}{V(\text{HCl})}$$

And:

$$v(\text{HCl}) = C(\text{HCl}) \cdot V(\text{HCl})$$

$$v(\text{HCl}) = 0.3\text{M} \cdot 0.045\text{l}$$

$$v(\text{HCl}) = 0.0135\text{mol}$$

Answer: $v(\text{HCl}) = 0.0135\text{mol}$ /