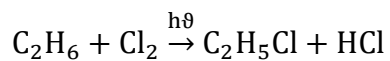


Question#74852 – Chemistry – General chemistry

Question: what mass of C_2H_5Cl can be produced from 25.00g of Cl_2

Solution:

1. An equation of the reaction:



2. Find moles of C_2H_5Cl :

$$n(C_2H_5Cl) = n(Cl_2) = \frac{m(Cl_2)}{M(Cl_2)} = \frac{25.00 \text{ g}}{70.91 \frac{\text{g}}{\text{mol}}} = 0.3526 \text{ mol}$$

3. Find the mass of C_2H_5Cl :

$$m(C_2H_5Cl) = n(C_2H_5Cl) \times M(C_2H_5Cl) = 0.3526 \text{ mol} \times 64.51 \frac{\text{g}}{\text{mol}} = 22.74 \text{ g}$$

Answer: 22.74 g C_2H_5Cl

Answer provided by AssignmentExpert.com