Answer on Question #82576 – Chemistry | General Chemistry

The molecular mass of Na_2HPO_4 is 142 g/mol. How much Na_2HPO_4 is needed to make 0.1 L of a 0.1 M solution of Na_2HPO_4.

Solution

M (H_2HPO_4) = 142 g/mol

C = 0.1 M

V= 0.1 L

m – ?

$$n = C \times V$$

$$m = n \times M = C \times V \times M = 0.1\ M \times 0.1\ L \times 142\ g/mol = 1.42\ g$$

Answer

Needed mass Na_2HPO_4 1.42 g.