

A pipette delivered a volume of 18.54 mL. The masses of liquid delivered were 18.001 g, 18.002 g, and 18.001 g. Calculate the density of the liquid. Please report an answer accurate to four decimal places- do not use Scientific notation or include units.

Answer:

$$V=18.54 \text{ ml}$$

$$m_1=18.001 \text{ g}$$

$$m_2=18.002 \text{ g}$$

$$m_3=18.001 \text{ g}$$

Formula density:  $\rho = m/V$ ;  $m = (m_1 + m_2 + m_3)/3$  therefore  $\rho = m / (3 \cdot V)$

$$\rho = (18.001 \text{ g} + 18.002 \text{ g} + 18.001 \text{ g}) / (3 \cdot 18.54 \text{ ml})$$

$$\rho = 0.97094 \text{ g/ml}$$

Answer provided by AssignmentExpert.com