Answer on Question #46903 - Chemistry – Inorganic Chemistry

Question

The density of mercury is 13.51 g/mL. If you have 2.50 kg of liquid mercury, what volume would it occupy?

Answer:

The density equals:

$$\rho = \frac{m}{V}$$

m – the Mass of mercury, m = 2.50 kg = 2500 g

V – the Volume of liquid mercury

Therefore volume occupied of 2.50 kg of liquid mercury is:

$$V = \frac{m}{\rho} = \frac{2500\ g}{13.51\ g/mL} = 185.05\ mL$$

Answer: 185.05 mL