

Question#18504

An alloy containing 80 parts of tin and 15 parts of antimony by weight weighs 190 gm. Find the volume of the alloy given specific gravity of tin and antimony are 7.3 and 6.6 respectively.

Solution:

The gravity of alloy is:

$$\rho = \frac{80 \cdot 7.3 + 15 \cdot 6.6}{80 + 15} = 7.19 \text{ g/cm}^3$$

Such as:  $m = \rho V$ ,

$$V = \frac{m}{\rho} = \frac{190}{7.19} = 24.43 \text{ cm}^3$$

**Answer: 24.43 cm<sup>3</sup>**