

1. What is the volume of 12.5 g of N_2O (g) at STP?

2. How many grams of CO_2 (g) can be in a balloon with a volume of 12.5 L at STP?

3. Determine the density of Cl_2 gas at STP.

4. What is the molar mass of 2.52 g of an unknown gas in a balloon with a volume of 20.2 L at STP?

5. What pressure in atmospheres (atm) is exerted by 2.54 g of steam (H_2O) at its boiling point of 100.0°C and in a volume of 2.00 L?

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6. What volume will 10.0 g of O_2 occupy at a temperature of 22.0°C and a pressure of 745 torr?

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7. How many grams of SO_3 gas are in 15.2 L at a pressure of 652 mm Hg and a temperature of 25.0°C ?