7	A sample of pure $Mg(NO_3)_2$ was decomposed by heating as shown in the equation below.	
	$2Mg(NO_3)_2(s) \longrightarrow 2MgO(s) + 4NO_2(g) + O_2(g)$	
07.1	] A 3.74 × $10^{-2}$ g sample of Mg(NO <sub>3</sub> ) <sub>2</sub> was completely decomposed by heating	].
	Calculate the total volume, in cm <sup>3</sup> , of gas produced at 60.0 °C and 100 kPa. Give your answer to the appropriate number of significant figures. The gas constant $R = 8.31 \text{ J K}^{-1} \text{ mol}^{-1}$ .	[5 marks]
	Total volume of gas =	cm <sup>3</sup>
07.2	] The mass of MgO obtained in this experiment is slightly less than that expect the mass of $Mg(NO_3)_2$ used. Suggest <b>one</b> practical reason for this.	ted from [1 mark]