

Henry's law can be put into mathematical terms (at constant temperature) as

$$p = k_H c$$

where p is the partial pressure of the solute in the gas above the solution, c is the concentration of the solute and k_H is a constant with the dimensions of pressure divided by concentration.

So if partial pressure of oxygen is (20% / 100%) = 0.2 and for nitrogen it is 0.8, the concentrations of it can be found:

$$C \text{ for } O_2 \text{ is } p/K=0.2 / 2\,000\,000 \text{ kPa} = 0.000\,000\,1 \text{ M}$$

$$C \text{ for } N_2 \text{ is } p/K=0.8 / 5\,000\,000 \text{ kPa} = 0,000\,000\,16 \text{ M}$$

But for finding composition of final gas mixture you need to know mass of water sample or volume of starting gas mixture.