Question #70676

Calculate the mass (in grams) of magnesium Chloride present in a 0.1575m soulution.

Solution:

0,1575m solution means that there're 0.1575 moles of $MgCl_2$ in 1L of water.

Molar mass of $MgCl_2$ is the sum of Magnesium atomic mass and 2 masses of Chlorine:

$24 + 2 \times 35.5 = 95$ (g/mole)

95 g of $MgCl_2$ – 1 mole

X g of $MgCl_2$ – 0.1575 moles

$X = 95 \times 0.1575 = 14{,}96$ (g).

Answer:

There are 14,96 g of magnesium chloride in 1L of 0.1575 m solution.