

Practical 3 – Chapter 1

Determination of the value of x in $\text{MgSO}_4 \cdot x\text{H}_2\text{O}$

The aim of this experiment is to determine the number of moles of water of crystallisation in hydrated magnesium sulfate.

Safety

- The crucible will get very hot. Extreme care must be exercised when handling it. Tongs should always be used.
- Wear eye protection.

What to do

- 1 Weigh a crucible.
- 2 Weigh out accurately approximately 3 g of hydrated magnesium sulfate.
- 3 Place your hydrated magnesium sulfate in the crucible. Put the crucible on the clay triangle on the tripod.
- 4 Heat the crucible strongly (**Care!**).
- 5 When you think the reaction has finished, allow the crucible to cool down and then weigh it and the contents.
- 6 Heat the crucible again for a few minutes, allow it to cool down and then weigh it and the contents again.
- 7 Repeat step 6 until you record a constant mass.
- 8 Use your results to calculate the number of moles of water of crystallisation in the hydrated magnesium sulfate.

