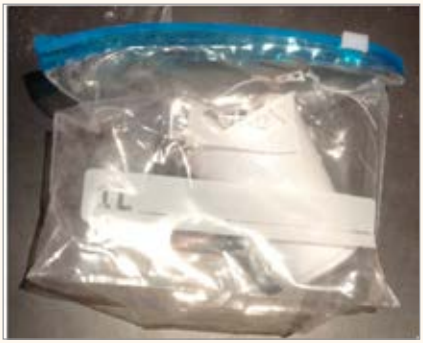
Zippie Chemistry 2: Precipitation Reactions

Experiments carried out in Ziploc bags (1L or 3L)

Background

In a precipitation reaction crystals of an insoluble salt are produced in solution. This is also referred to as settling out of solution and the product symbol attains a ↓.



Safety

- ✓ Goggles
- ✓ Disposable gloves

You will need...

- ✓ Ziploc bags (1L or 3L)
- ✓ Sodium carbonate
- ✓ Epsom Salts or calcium chloride

Follow these steps

1. Create a mixture in the Ziploc bag involving solutions of sodium carbonate and either magnesium sulfate or calcium chloride
2. Add 5 cm^3 of the chosen solutions.
3. Expel excess air from the bag when sealing it and leave the reactants undisturbed.
4. Mix reactants by shaking and observe

So what happened?

The formation of a precipitate may occur which will break into smaller pieces.

Na_2CO_3 (aq) + $MgSO_4$(aq) → Na_2SO_4(aq) + $MgCO_3$ ↓

What next?

1. Try the experiment with other materials and liquids and compare crystal colours and sizes
2. Filter the crystals and dry
3. Research how centrifuges are used in relation to precipitates