

Zippie Chemistry 4: Gel Formation

Background

Gels are solid jelly-like materials that have a cross-linked structure that prevent them from flowing. They may exhibit adhesive characteristics (tackiness).

Safety

- ✓ Goggles
- ✓ Disposable gloves

You will need...

- ✓ Ziploc bags (1L or 3L)
- ✓ cornflour (corn starch)
- ✓ calcium chloride

Follow these steps

1. Create a mixture in the Ziploc bag involving both cornstarch and calcium chloride
2. Add 5 cm³ of water or of one of the solutions listed in Experiment 1.
3. Expel air from the bag when sealing it and leave reactants undisturbed.
4. Mix reactants by shaking and observe.



So what happened?

The solvation of calcium chloride is exothermic so it cooks the cornstarch and a gel forms.

What next?

1. Try the experiment using the liquid where iodine is present and note the colour change from orange to black.