



Exploding Bag

You will need:

Citric acid solution(60g/litre water) or vinegar,
Baking soda, zip-lock bag (18x17cm), peg, tablespoon,
tray

What to do:

1. Measure and pour 150ml citric acid solution or vinegar into the zip-lock bag.
2. Clamp the middle of the bag with the peg.
3. Add 1 heaped tablespoon of baking soda to the top of the bag.
4. Seal the bag completely.
5. Release the peg and give the bag a gentle shake and place in the tray.



Take it further:

Will different temperatures of acid affect the rate of reaction (how fast the bag inflates)?
What amount of baking soda creates the best reaction?

The Science:

This chemical acid-base reaction between the acid and baking soda gives off carbon dioxide gas that fills the plastic bag until it bursts . Note also that the bag becomes quite cold as it is an endothermic reaction –absorbs energy (heat) from its surroundings.