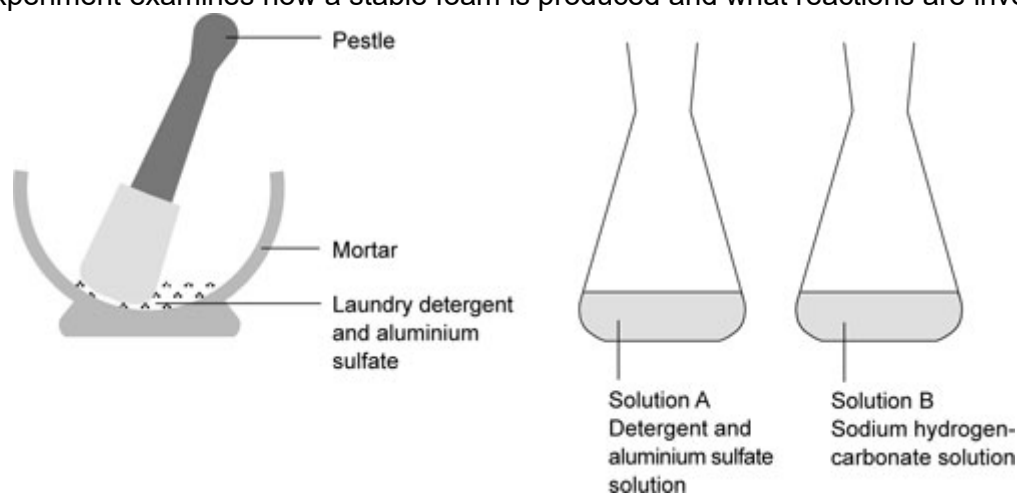


Producing a foam – student sheet

Introduction

This experiment examines how a stable foam is produced and what reactions are involved



Equipment

Apparatus

- Eye protection
- Beaker, 250 cm³, x2
- Pestle
- Mortar

Chemicals

- Laundry detergent – eg Persil non-biological
- Hydrated aluminium sulfate
- Sodium hydrogen carbonate

Health, safety and technical notes

- Read our standard health and safety guidance here <https://rsc.li/3VhgS5Q>
- Always wear eye protection.
- Aluminium sulfate can cause eye damage, see CLEAPSS Hazcard [HC002b](https://rsc.li/3Vf0pPr).
- Laundry detergent may irritate the skin.

Procedure

1. Put 1 g of laundry detergent and 7 g of aluminium sulfate in a mortar and grind into a fine powder with a pestle.
2. Dissolve this powder in approximately 50 cm³ of water in a conical flask (A).
3. Dissolve 5 g of sodium hydrogen carbonate in 50 cm³ water in another conical flask (B).
4. Pour the contents of flask A into flask B and mix quickly.

Questions

1. What reactions lead to the production of the foam?
2. How is this reaction similar to that involving the production of carbon dioxide (CO₂) during the baking process?
3. Name some other examples of foams.