D6: Bubble Bath Tower

- **Preparation time 5 minutes**
- **Demonstration time 5 minutes**

Requirements

500 cm^3 measuring cylinder
20 vol. hydrogen peroxide **(irritant)**
bubble bath
food dye
potassium iodide
large bowl
spatula

eye protection must be worn

IRRITANT

hydrogen peroxide (20 vol.)

CORROSIVE

hydrogen peroxide (100 vol.)

Method

1 Put the measuring cylinder in the bowl.

2 Add 50 cm^3 of 20 vol. hydrogen peroxide, 15-20 cm^3 bubble bath and a few drops of food dye.

3 Add 6 g of potassium iodide, swirl and stand back.

4 To clear up, stand the bowl in a large sink and hose away the bubbles with rubber tubing attached to a tap.

Alternative

100 vol. hydrogen peroxide **(corrosive)** can be used for a more vigorous reaction, but this is VERY messy!

Safety advice

Make sure pupils are at a safe distance.

Wear goggles (safety specs are not adequate if using 100 vol. hydrogen peroxide). Wear gloves.

Chemical background

The bubble bath is added to make the liquid froth more by reducing surface tension. The food dye is added to increase the visual effects. When the potassium iodide is added to the peroxide, it bubbles vigorously as oxygen gas is given off. (You might like to place a glowing splint in the neck of the measuring cylinder to demonstrate this.) The iodine goes into solution and, if food colouring is not used, a brown solution would be seen. Using more concentrated peroxide will produce bubbles even faster.