

# Mini Lab Soaps

## SAFETY RULES

- Read the instructions before use, follow them and keep them for reference.
- Keep young children and animals away from the experimental area.
- Keep the kit out of reach of children under 8 years old.
- Wash hands properly before and after each experiment.
- Clean all the equipment and experiment area after using.
- Make sure that all containers and/or non-reclosable packaging are fully closed and properly stored after use.
- Ensure that all empty containers and/or non-reclosable packaging are disposed of properly.
- Do not use any equipment which has not been supplied with the set or recommended in the instructions for use.
- Avoid the contact with the eyes (for soap and ingredients).
- The made products (soaps) should not be used anymore if they change their appearance, colour or scent.
- Contains fragrances that may cause allergies (Hexyl Cinnamic Aldehyde, Benzyl Salicylate, Allyl Cyclohexanepropionate, D-Limonene, Delta-1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, 2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde, Citral and Butylphenyl Methylpropional).

## GENERAL FIRST AID INFORMATION

- In case of eye contact: Wash out eye with plenty of water. Seek immediate medical advice if necessary.
- If swallowed: Wash out mouth with water and drink some fresh water. Do not induce vomiting. Seek immediate medical advice.

## LIST OF CHEMICALS SUPPLIED

### Apple scent

#### Hazard Statement:

**H317:** May cause an allergic skin reaction.

**H411:** Toxic to aquatic life with long lasting effects.

#### Precautionary Statement:

**P280:** Wear protective gloves.

**Contains Hexyl Cinnamic Aldehyde, Benzyl Salicylate, Allyl Cyclohexanepropionate, D-Limonene, Delta-1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one, 2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde, Citral and Butylphenyl Methylpropional. May produce an allergic reaction.**



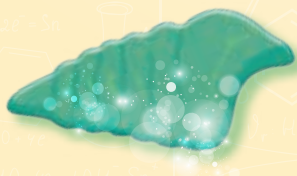
Warning

### Soap base

**INGREDIENTS:** AQUA, GLYCERIN, SODIUM STEARATE, PROPYLENE GLYCOL, SORBITOL, SODIUM LAURATE, SODIUM LAURETH SULFATE, DISODIUM LAURYL SULFOSUCCINATE, SODIUM CHLORIDE, STEARIC ACID, LAURIC ACID, PENTASODIUM PENTETATE, TETRASODIUM ETIDRONATE

### Red cosmetic colouring (CI 14720)

**INGREDIENTS:** FOOD RED 3, METHYLISOTHIAZOLINONE, METHYLCHLOROISOTHIAZOLINONE, DIMETHYLOL GLYCOL



## Experiment 1 Scented soaps

**INGREDIENTS:** AQUA, GLYCERIN, SODIUM STEARATE, PROPYLENE GLYCOL, SORBITOL, SODIUM LAURATE, SODIUM LAURETH SULFATE, DISODIUM LAURYL SULFOSUCCINATE, SODIUM CHLORIDE, STEARIC ACID, LAURIC ACID, PENTASODIUM PENTETATE, TETRASODIUM ETIDRONATE, LIMONENE, HEXYL CINNAMAL, BENZYL SALICILATE, PARFUM

**ATTENTION: ask an adult for help.**



**What you will need:**

- Soap base ★
- Knife
- Oven or microwave
- Cup or bowl made of resistant glass (e.g. Pyrex)
- Oven mitt
- Wooden spatula ★
- Plastic mould for soaps ★
- Apple fragrance ★
- Pasteur pipette ★

### Steps:

**1.** Ask an adult to use the knife to cut a piece of the soap base from the small box (enough to make a soap - in between 16 and 23 grams) and cut it into small pieces.



**2.** Put the small pieces of soap base inside the cup or bowl.

**3.** Now we are going to heat up the soap base for it to melt, and you will see that the solid soap turns into liquid. The melting point of the soap base included in this kit is in between 50° and 60°C (122 and 140°F). You can melt it in 2 different ways:

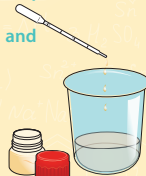
- **Water bath:** Place the cup (or bowl) in boiling water bath, keep stirring it with the wooden spatula until the soap base is completely melted;

Or

- **Microwave:** Heat up the cup (or bowl) with the soap base for 20 seconds. Remove the cup and stir the soap base with the wooden spatula. Put the cup back in the microwave for 10 seconds more and then remove it and stir it once again. Repeat this last step (never heat it more than 10 seconds at a time) until the soap base is completely melted.

**ATTENTION:** Use the oven mitt so that you don't get burnt while picking up the cup. Ask an adult for help.

**4.** Add some drops of the apple scent and then stir it with the wooden spatula.



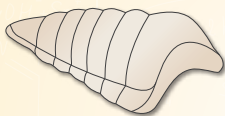


5. Now it is time to give a shape to your soap. Carefully, so that you don't get burnt, pour the soap base into the plastic mould.



6. Leave your soap to rest for 2 hours. It is important not to stir it as it is turning back into its solid state.

7. After this period, your scented soap is ready to use! If you want you can offer it to a friend or a relative.



### Ideal Formulations

Apple scented soap (20.25 g)

Soap base - 20 g

Apple fragrance - 0.25 g



## Experiment 2

### Scented and colourful soaps

**INGREDIENTS:** AQUA, GLYCERIN, SODIUM STEARATE, PROPYLENE GLYCOL, SORBITOL, SODIUM LAURATE, SODIUM LAURETH SULFATE, DISODIUM LAURYL SULFOSUCCINATE, SODIUM CHLORIDE, STEARIC ACID, LAURIC ACID, PENTASODIUM PENTETATE, TETRASODIUM ETIDRONATE, LIMONENE, HEXYL CINNAMAL, BENZYL SALICILATE, PARFUM, METHYLISOTHIAZOLINONE, METHYLCHLOROISOTHIAZOLINONE, DIMETHYLOL GLYCOL, CI 14720

**ATTENTION:** ask an adult for help.



### What you will need:

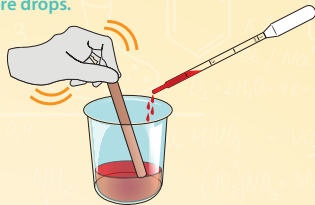
- Soap base ★
- Knife
- Oven or microwave
- Cup or bowl made of resistant glass (e.g. Pyrex)
- Red cosmetic colouring ★
- Pasteur pipettes ★
- Oven mitt
- Wooden spatula ★
- Plastic mould for soaps ★
- Apple fragrance ★

**Attention,** the colouring included in this kit may stain. Therefore, keep it away from clothes and delicate fabrics.

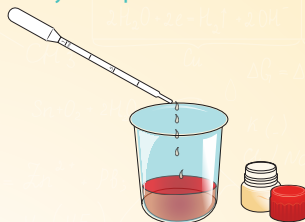
### Steps:

1. Repeat steps 1 to 3 from the previous experiment.

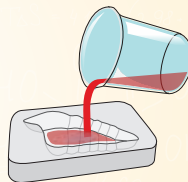
2. With the pipette, add some drops of red cosmetic colouring to the soap base and stir with the wooden spatula. Choose the concentration colour that you like. If you want a soft intensity of red, add just a few drops. If you want a darker red, add some more drops.



3. Now, add some drops of apple scent to give a delicious fruity smell to your soap. Stir it with the wooden spatula.

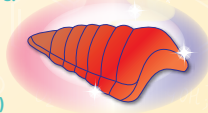


4. Now let's give a shape to your soap. Carefully, so that you don't get burnt, pour the soap base into the plastic mould.



5. Leave your soap to rest for 2 hours. It is important not to stir it as it is turning back into its solid state.

6. After this period, your scented and colourful soap is ready to use! You can also offer it to a friend or a relative.



### Ideal Formulations

Apple scented red soap (20.35 g)

Soap base - 20 g

Apple fragrance - 0.25 g

Red cosmetic colouring - 0.1 g

Did you have fun with this mini kit and want to learn more about the Soap Factory? So visit our web page and become a real scientist:

[www.science4youtoys.co.uk/minilab-soaps](http://www.science4youtoys.co.uk/minilab-soaps)



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