

8. Making soap

Soap is important in preventing the spread of disease by helping people keep themselves, their clothes and their surroundings clean. In some places, soap is unavailable or expensive. This Technical Brief gives some practical guidelines on a cheap, easy way to make soap on a small scale, using ingredients which are available locally.

The principle

The principle of soap making is the chemical reaction between an alkali and a fat or oil. The alkali breaks down the fat or oil into soap and glycerol. The soap is then washed and dried to produce the final product.

Basic recipe

4 parts oil / 3 parts caustic soda / 2.5 parts water / 13 parts ash
 30 parts oil / 30 parts caustic soda / 12 parts water / 12 parts ash
 12 parts oil / 5 parts caustic soda / 5 parts water / 5 parts ash

Choosing oils and fats

Choose oils and fats that are readily available and of good quality. Avoid rancid or spoiled oils. The type of oil or fat used will affect the properties of the soap, such as its lather and how well it cleans.



24 parts oil / 3 parts caustic soda / 24 parts water / 12 parts ash
 32 parts oil / 32 parts caustic soda / 12 parts water / 12 parts ash
 * Use 1 part caustic soda for every 10 parts oil

Category	Composition	Type of Soap	Ratio of caustic soda: oil
3 parts oil / 3 parts caustic soda / 2.5 parts water / 13 parts ash	30 parts oil / 30 parts caustic soda / 12 parts water / 12 parts ash	12 parts oil / 5 parts caustic soda / 5 parts water / 5 parts ash	1
24 parts oil / 3 parts caustic soda / 24 parts water / 12 parts ash	32 parts oil / 32 parts caustic soda / 12 parts water / 12 parts ash		1
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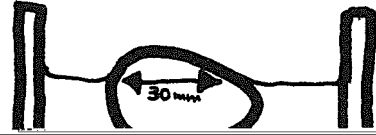
Making soap

Alkalis

To make caustic potash



5 gallon/19 litre wooden barrel



The lye is the

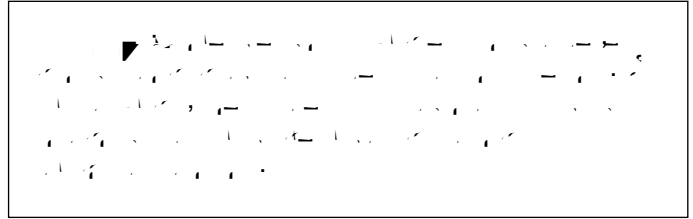
Strength of alkali

4.53 2.5
4

Water

1. Measure 150 ml (1/2 cup) of water into a measuring cup.
2. Pour the water into a large bowl.
3. Add 15 ml (1/2 ounce) of water to the bowl.

4. Stir the mixture with a wooden spoon until the water is completely dissolved.

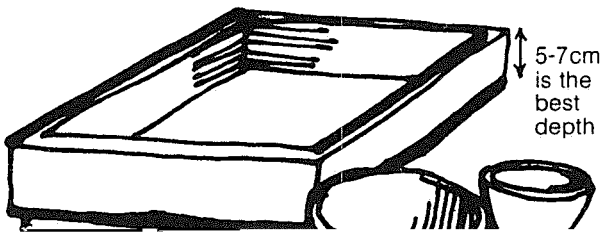


Equipment

1. A large bowl
2. A wooden spoon
3. A measuring cup

Method

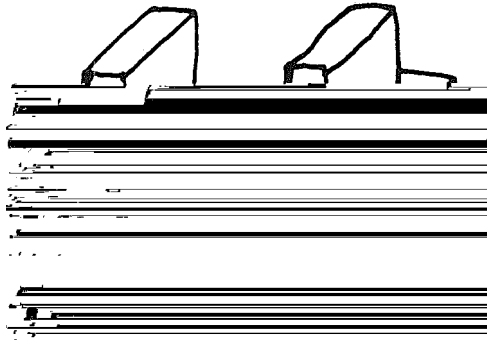
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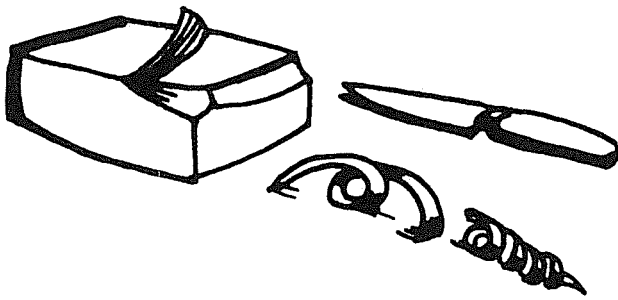
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Making soap

- 1. The soap is made in a mold.
- 2. The soap is cut into bars.



- 3. The soap is packed in a box.
- 4. The soap is ready for sale.



Perfume

- 1. The soap is made in a mold.
- 2. The soap is cut into bars.
- 3. The soap is packed in a box.
- 4. The soap is ready for sale.
- 5. The soap is ready for sale.
- 6. The soap is ready for sale.
- 7. The soap is ready for sale.
- 8. The soap is ready for sale.
- 9. The soap is ready for sale.
- 10. The soap is ready for sale.

For more information

1. *Small-scale soap-making: a handbook*, ...
2. *The preparation of soap*, ... 101 ...
3. *Soap manufacture by the cold process*, ...
4. *Make your own soap: an aid to extension and village workers in Ghana*, ... 3 ...
5. *VITA Village Technology Handbook*, 1 15 ... 2220 ...
6. ... 1 3 ...



Problems?

- 1. The soap is made in a mold.
- 2. The soap is cut into bars.
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Using dirty or rancid fat

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