

Do it yourself!



Zero-Waste

Seaweed Coatings for Cosmetics



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EU MISSIONS
RESTORE OUR OCEAN & WATERS

SHARE THIS
GUIDELINE!



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NATIONAL INSTITUTE
OF CHEMISTRY

Equipment and accessories

shampoo balls
STANDAR
D

approx. 250 balls

⌚ 45 min

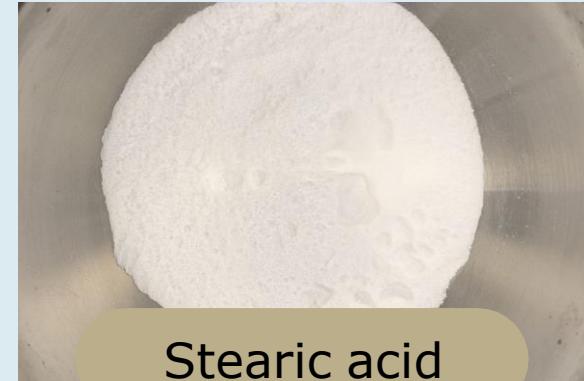
- 1 large metal bowl
- 2 small metal bowls
- 1 wooden bowl
- 1 spoon
- 2 small sieves
- 1 tray
- Dehydrator/dryer
- Handheld stick blender
- Press gun

Ingredients

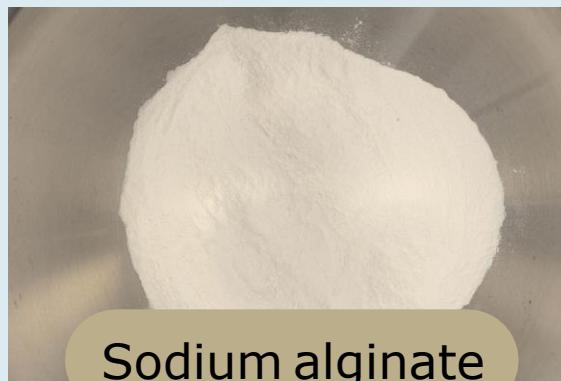
Tapioca starch
Stearic acid
Sodium alginate
Water (aqua)
Calcium Chloride
Menthol



Tapioca starch



Stearic acid



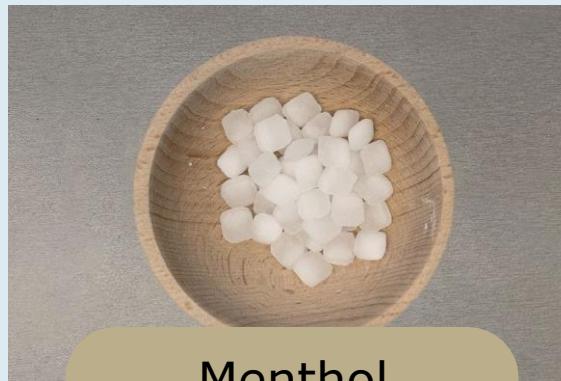
Sodium alginate



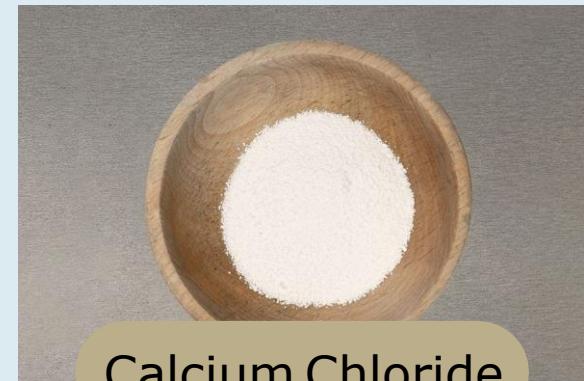
Water



Dehydrated
liquid shampoo

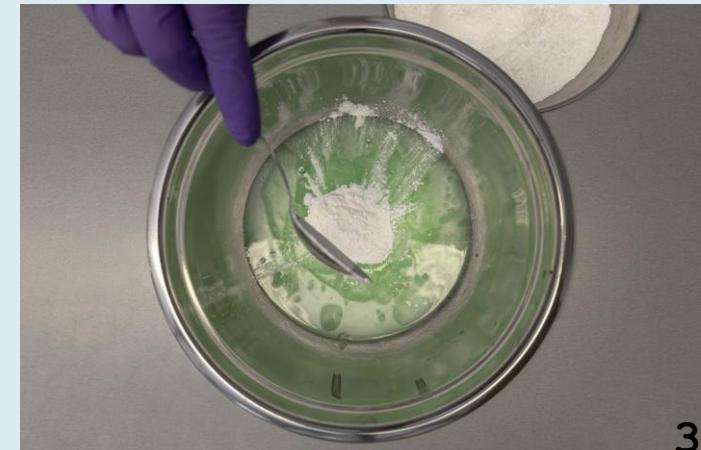
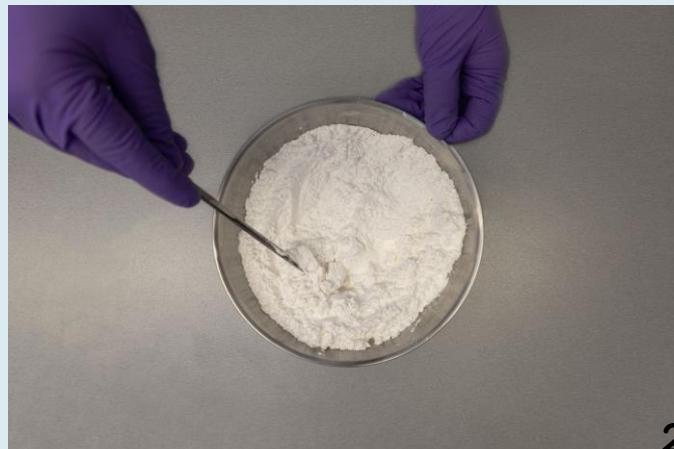


Menthol



Calcium Chloride

Mixing of the shampoo dough



1 750 g of dehydrated shampoo (water content below 40%).

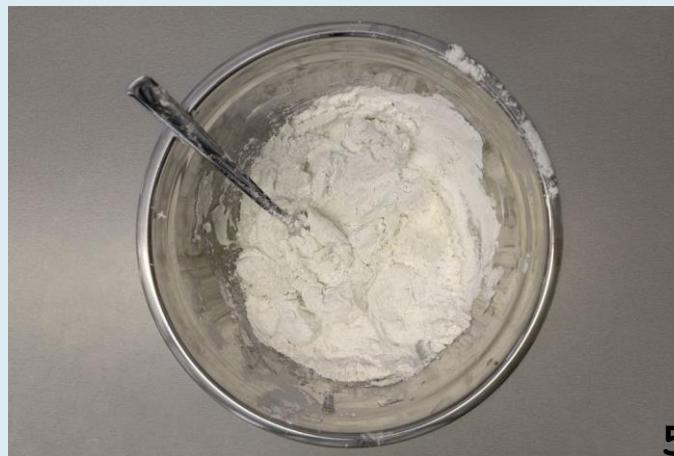
2

Mix 500 g of Tapioca Starch.

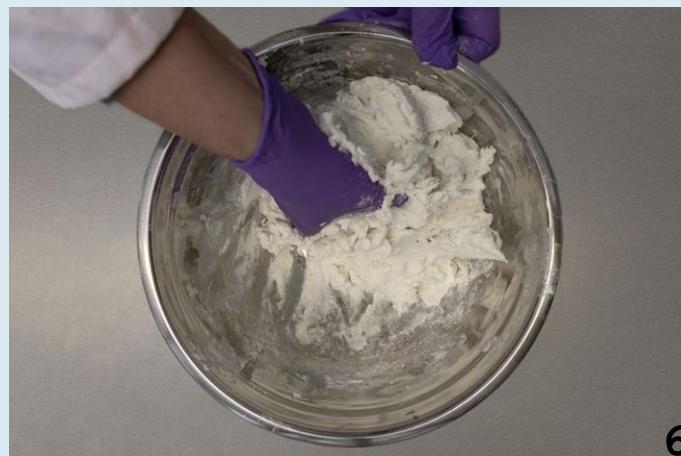
3 Add mixed powder to shampoo; approx. 1/3 at a time.



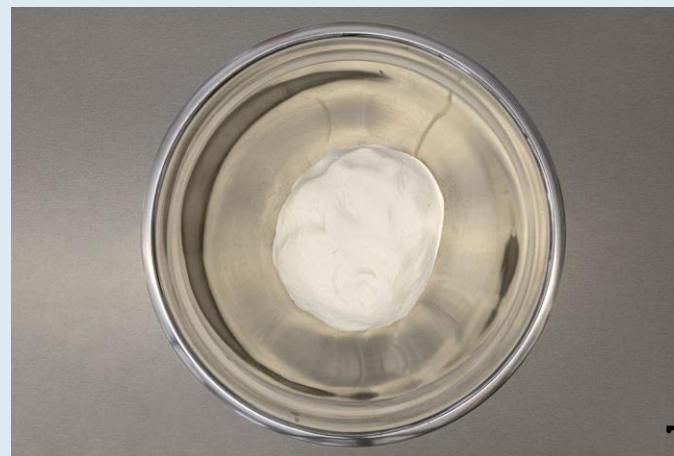
4



5



6



7

4 - 6 First, mix the ingredients with a spoon, then knead with your hands.

7 The shampoo dough is ready when it no longer sticks to your hands or the bowl.

Making of shampoo balls



8

8

Spread tapioca starch with a sieve on a wooden surface.



9

Use a spoon to transfer the shampoo dough into the press gun.



10

10-11

Apply pressure to the press gun handle to make lines of shampoo dough.



11



12



13



14

12-14

Cut the shampoo dough into equal pieces,
approximately 1-1.5 cm wide.



15



16



17

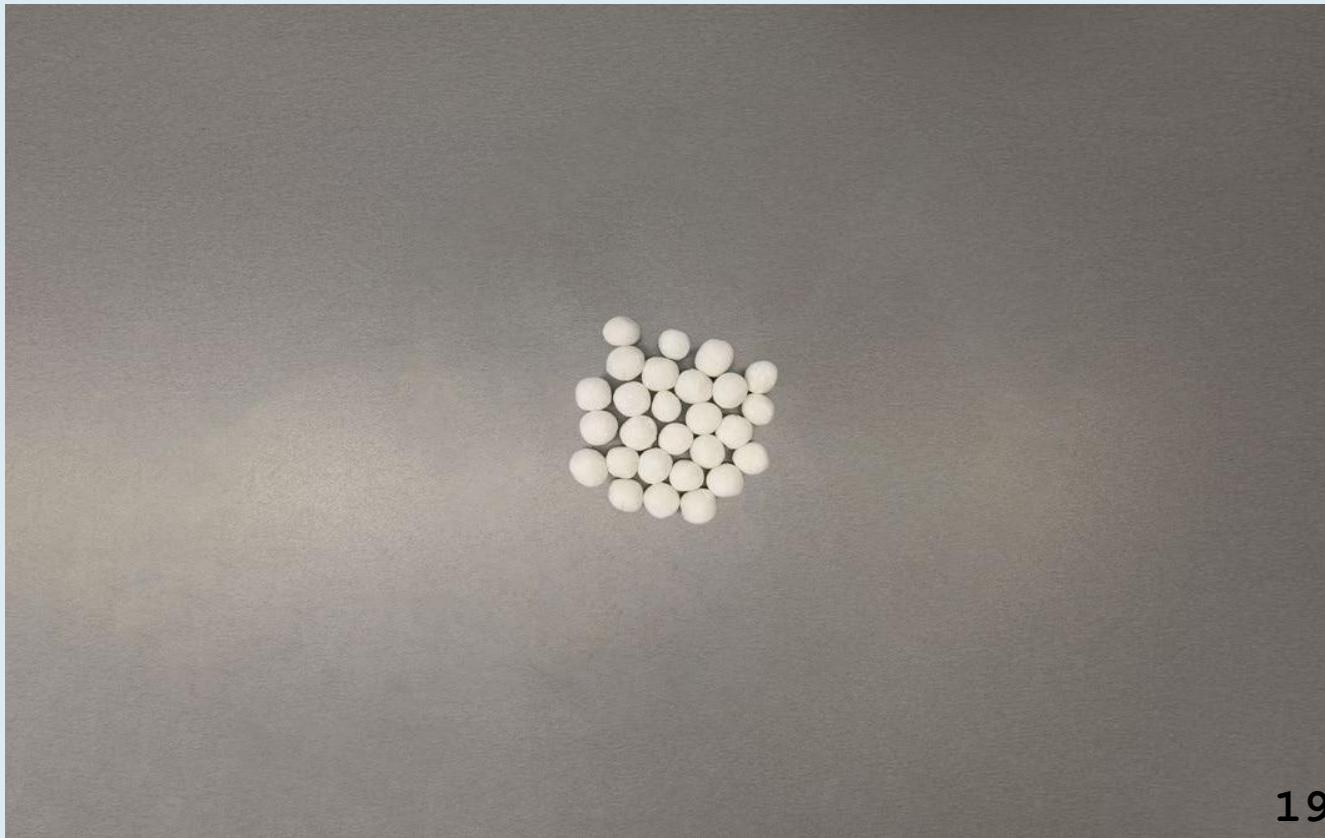


18

Take one piece
in your hand and
use the other
hand to shape it
into a ball.

15-18

*Tip: Lightly dust
your hands with
starch before
starting.*



19

19

Place the balls on a surface and avoid them touching each other.

Preparing coating solution 1

Hand Blender

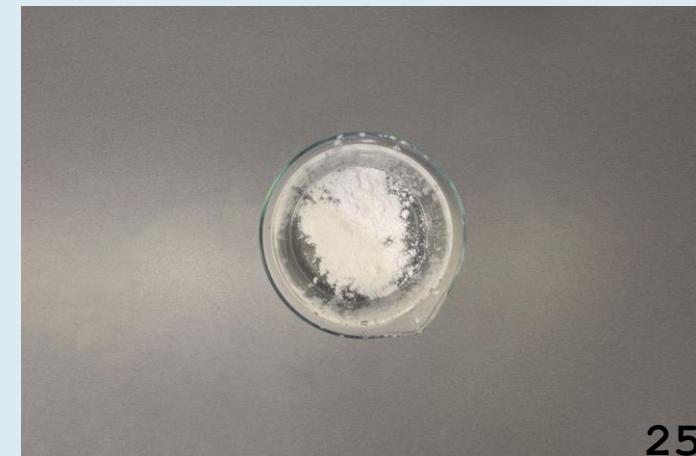




23



24



25

23-25

Add sodium alginate and tapioca starch to the water.



26



27

Blend until fully dissolved (approximately 3 minutes).

26

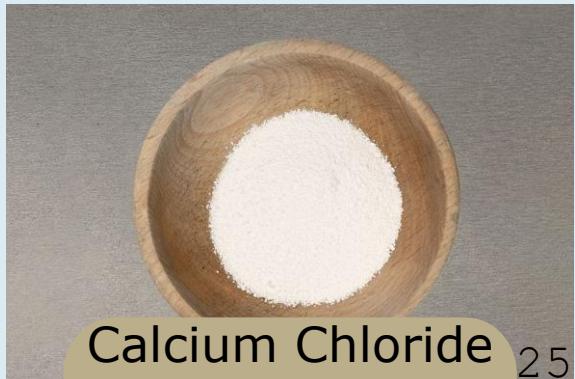
Coating solution 1.

27

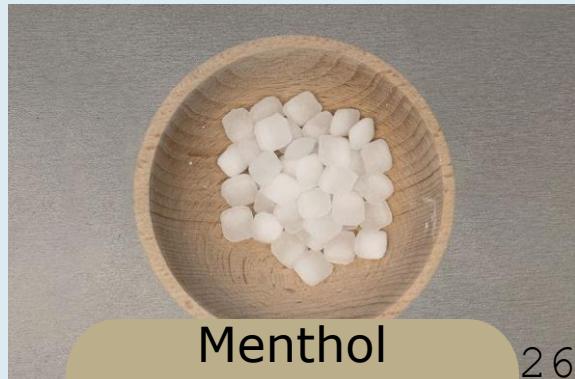
Preparing coating solution 2



Stearic acid 40 g 24



Calcium Chloride 10 g 25



Menthol 1 g 26



Water 300 g 27



96% Ethanol 700 g 28

Preparing coating solution 2



33



34



35

33-35

Add all ingredients into one beaker.



36



37

36

Blend until
fully dissolved.

37

Coating
solution 2.

Coating the shampoo balls



Add 3
tablespoons of
Coating Solution
1 to a small
wooden bowl.

38



39-41
Wet the sieve with
Coating Solution
1, then add the
shampoo balls.



42

42
Prepare a larger
bowl with
Coating Solution
2.



43

43-44

Swirl the shampoo balls in the sieve to achieve a glossy finish, then transfer them to the bowl with Coating Solution 2. Let them sit for at least 10 seconds.



44



45

Use another sieve to pick up the coated shampoo balls.

46

Place the shampoo balls in a container to dry for a few minutes.

47

As a final step, use an oven at 45°C with ventilation mode for 15 minutes.

Optional:

Repeat steps 33-40 multiple times for a thicker coating.

Zero-Waste Packaging Options



48



49



50

48 Refillable container – for home use.

49 Shelf storage without packaging – a minimal-waste option.

50 Paper box – ideal for travel.



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the European Union

Gender dimension
was considered in
creation of this
document. The
colors and fonts
used are dyslexia-
and ADHD-friendly.

PIGMENTS



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MACHINE



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