

PW : preparing a solid shampoo

Introduction

Today we are going to test zerowaste workshops. The idea is to prepare a solid shampoo and / or a soap and to get your feedback on the recipe and the product.

Why preparing a solid shampoo is related with zerowaste ?



Recipe

- 45 g of SCI surfactant
- 5 g of oil
- 10 g of water
- 6 g of powder

Question : what is a surfactant ? Explain simply using the wikipedia extract below.-----

Experiment the surface tension and the role of surfactants using a glass of water, a paper clip and washing up liquid.



Surfactant

 54 languages 

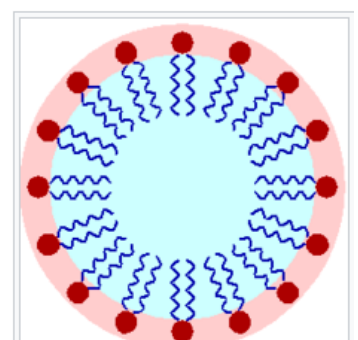
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From Wikipedia, the free encyclopedia

Surfactants are [chemical compounds](#) that decrease the [surface tension](#) or interfacial tension between two [liquids](#), a liquid and a [gas](#), or a liquid and a [solid](#). Surfactants may function as [emulsifiers](#), [wetting](#) agents, [detergents](#), [foaming agents](#), or [dispersants](#). The word "surfactant" is a [blend](#) of ***surface-active agent***,^[1] coined c. 1950.^[2]

Agents that increase surface tension are "surface active" in the literal sense but are not called surfactants as their effect is opposite to the common meaning. A common example of surface tension increase is [salting out](#): by adding an inorganic salt to an aqueous solution of a weakly polar substance, the substance will precipitate. The substance may itself be a surfactant – this is one of the reasons why many surfactants are ineffective in sea water.



Let's prepare our shampoo

- Mix the liquids and the SCI in a 250 mL beaker
- Warm very gently and continue mixing/crushing until you get a homogeneous dough.
- Finally add the powder to the dough.
- Shape your dough with your hand or with a mold.
- Let it stand for 24h ideally in a cold place.