

Shaving Soaps, Sticks & Powder

- Shaving soap are originally prepared in bar or cake form.
- The bar shaving soap is resemble the ordinary bar toilet soap physically, but some changes must be made to meet the shaving requirement.
- it must lather quickly & copiously (property of coconut oil).
- the lather must be thick in texture & long lasting (property of fatty acid of palm oil or tallow oil, these soap lather slowly but have better lathering properties than coconut oil).
- so combination will usually give better product than will single soap of fatty acid or oil alone.

•The ease of lathering depends on the solubility of the soap. In general, K soap are more soluble than Na soap, but we can't use K soap alone bec. :

* K soap is softer so we must use Na soap to give body to the mixture.

* K soaps are more irritant than Na soaps (K > Na in irritancy).

Formula:

Tallow oil	15-30 %
Coconut oil	10-15 %
Stearic acid	10-50 %
KOH	10-15 %
NaOH	5-10 %



Procedure for preparation:

1. Oil is heated to 70°C.
2. Add Na then KOH followed by melted stearic acid, then heat until complete saponification.
3. Adjustment of free fatty acid or alkali will then take place.
4. The soap can be then poured onto the mold or chipped and dried into a suitable shaped cake.

Shaving sticks:

- It is a very dry form, which is rubbed into the moistened skin, then worked into a lather by brush.
- There is no significant difference between sticks & bar soap except in the following:
 - * stick form contains a small amount of glycerin.
 - * it is composed mainly of stearic acid
 - * it contains a larger amount or % of K stearate than the bar soap.

Lather Shaving Cream:

- It contains the same ingredients as bar shaving soap.
 - * The difference is that the cream contains a large amount of water which is responsible for stability, viscosity problems and product separation.
 - * The type of fatty acid and the ratios between Na & K soap affect greatly the foam production.
 - In the lather cream the ratio not only affects the foam but also the consistency & stability as well.
 - * Small change in the ratio leads to greater change in the viscosity.
 - * Na soap → stingy & firmer cream.
K soap → softer cream.
- from here this is the job of the formulator to decide which qualities are more important to the product.

Rx:

Stearic acid	20-40 %
Coconut oil	6-10 %
Glycerol	5-15 %
KOH	2-6 %
NaOH	1-3%
Veg. mineral oil	1-5 %
Water	Q.S.



Procedure:

1. Melt stearic acid then add coconut oil.
2. Add Na then KOH \longrightarrow saponification, then add excess fatty acid or oil.
3. Heat water & glycerol together then add it to the mixture.

- * Borax if added into small amount (0.1-1%) can affect the viscosity.
- Other agent can be added to the formula to improve the lather, make the face feel better, retain moisture or make the lather cream more lubricating.
- *most creams contain superfatting agent which has a dual action:
 1. neutralize any free alkali that might be present.
 2. to stabilize both cream and lather.
- Example of superfatting agent: free stearic, free coconut oil, veg. oil , mineral oil, lanoline.
- Glycerin is added to the formula to keep the cream soft and improve the lather by retaining the moisture. Or we can use propylene glycol or sorbitol.
- Sometimes menthol has been added to the formula for cooling effect.
- Hexachlorophene has been added as germicide.

Brushless Shaving Cream:

- it resemble lather shaving cream in appearance.
 - Lather is a soap intended to produce foam but the brushless cream purpose is not to produce foam.
 - Ex. o/w emulsion (vanishing cream)
- * Adv. Speed & they do not require brush.

Advantage in application:

1. they give more comfortable shave bec. Of their greater lubricating ability and reduction in razor pull or drag.
 2. Leave the face with a thin coating of oil or grease after shaving which makes the skin feel less irritated and softer.
- Since they do not contain soap, they do not of themselves soften the beard, and this function can be accomplished by first washing the beard with water & soap before application of cream.

Rx:

Stearic acid

Mineral oil

Soap or surfactant

Glycerol

Water



*borax → viscosity

•Glycerol, propylene glycol → humectants for their moisturizing effect.

* Lanoline , fatty alcohols → emollient.