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## Method of Preparation of SOAP.

### Soap :-

\* Soap is a substance used with water for washing and cleaning, made of a compound of natural oils or fats with sodium hydroxide or another strong alkali and typically having perfume and colouring added.

### Ingredients :-

01) source of glyceride - tallow, lard, palm oil, whale oil, fish oil, Greases. (Slow leather)

\* Coconut oil, palm, kernal oil, soyabean oil, coconut seed oil, Unedible olive oil (Quick leather)

02) Rosin - Plant extraction contains abietic acid

03) Triethanol amine - foam booster.

04) Caustic soda - strength (saponifying agent)

05) Sodium Chloride - Common salt is used for salting out of soap (2.5 pp 100 parts of oil).

06) Binding Material - To increase the cleansing action of soap - Sodium silicate (5%)

- Soda ash (5-10%)
- Tri sodium phosphate
- Borax (1-2%)

\* These binding Materials improve soap texture correct the alkali Metal of the solution and prevent the formation of precipitate in hard water.

07) Fillers - The weight of soap is increase by adding fillers like talc (5-10%)

- Starch
- Glycerol
- Pearl ash etc...

08) Colouring Matters - Organic dyes or inorganic pigments used.

09) Perfumes - fixatives (to improve fragrance)

\* Natural perfumes - Sandal wood oil, lemon grass oil, clove oil, Eucalyptus oil and lavender oil, Cinnamon oil.

\* Synthetic perfumes - Jasmine / Benzyl acetate

\* Rose - phenyl ethyl alcohol

\* Laila - Terbenol

\* Musk - Benzoin

Perfume, fixatives - Tolu - Balsam  
Gum - Benzoin

### Diagram :-



## Method of Preparation :-

\* A soap kettle is heated by steam and has a outlet pipe to take out the lye mixture of oil & caustic soda is added until saponification complete.

\* After saponification the steam is cut and dry salt is added over the surface and further heating until the insoluble brine gets precipitated and soap separates. The soap is insoluble in strong alkali and it becomes grainy.

\* Now cut of the steam and the whole mass is allowed to settled. The dye is withdrawn from the bottom of the kettle and the soap is hydrated with large amount of water.

\* When water is observed by the soap, the whole mass is then boiled and then allowed to settle for several days. The settled mass is then separated and made it to cakes and dried in shadow.