AMATHA

[Pure as mother’s love]

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ABSTRACT

Soaps are used frequently in our daily lives. There is a significant difference between soaps synthesized from natural products and highly chemical-commercial soaps. The prime objective of the experiment is to prepare organic soap and compare its properties to that of a synthetic soap, where our intention is to make clear of the use and benefits of our purely handmade "AMATHA SOAP" , where we ensure a more ecofriendly, comfortable and sustainable future.

Keywords: -

- Organic
- TFM
- Carbonate alkali
- pH
- Alkaline

- With umpteen number of soap bars filling the market, choosing the right soap can become a cumbersome task. This is where Total Fatty Matter comes into play. Let's find out how much TFM you should be looking for while purchasing soaps.
- Here we are providing the test report of our soap.

Parameters	Unit	Result	Test Method
pH(10 %aqueous solution)	-	10.85	IS : 6608-2004
Total Fatty Matter	%	46.39	IS :286-2018
Free caustic alkali as NaOH	%	Nil	IS :286-2018
Free Carbonated alkali	%	Nil	IS :286-2018

As you can see the evident proof from the data we provided, Amatha is free from carbonate alkali, which refers to a product's absence of fat and alkaline ingredients. They employ nonionic surfactants derived from natural sources, such as plants rather than chemical surfactants that may harm your skin.

Handmade soaps are even more alkaline (cleaning ability)with a safe range of pH to use on skin. Anything above that required level of pH will be too harsh on skin and will cause irritation, where Amatha's pH lies on the safe zone.

Total fatty matter(TFM):-

Total fatty matter is one of the most important characteristics describing the quality of a soap and it is always specified in commercial transactions. It is defined as the total amount of fatty matter, mostly fatty acids, that can be separated from a sample after splitting with mineral acid, usually Hydrochloric acid. The most commonly present fatty acids in a soap are oleic, stearic and palmitic acids. Pure, dry ,sodium oleate has a TFM of 92.8%, while top quality soap noodles ,now widely used for making soap tablet in small and medium-sized factories, are typically traded with a specification of TFM of 78% min.., moisture 14% max. But besides moisture, finished commercial soap, especially laundry soap, also contains fillers used to lower its cost or confer special properties, plus emollients, preservatives, etc. and then the total fatty matter can be as low as 50%. Fillers, which are usually dry powders, also make the soap harder, harsher on the skin and with greater tendency to become ‘mushy’ in water and due to these reasons low total fatty matter is usually associated with lower quality and hardness.

Now, soap with TFM 75% minimum was referred to as Grade 1 and 65% minimum as Grade 2 and less than 60% as Grade 3.

After giving this much information about TFM, we know you are very skeptical and concerned about buying our product as it only offers you with a 46.39% TFM and its quite understandable to us. There our product goes unique, we already mentioned that our product is mostly concentrated with organic way of making .So, when we went for a depth study in soap making, for special cases like handmade ,organic soap we ended up with the conclusion that,

In hand made soaps, TFM can range from 60-75%.This range does not mean that its not a quality soap. TFM of hand made soaps are reduced mainly because of following reasons :-

Usage of herbs, aloe vera and milk reduces the TFM whereas these are not used in commercial soap.

And when we come to our product which is an organic soap it base can show a TFM between 32-35% while the sulfate free soap base can have a TFM of more than 40%.

Our product is sulfate free , also we ensure 40+% which make you believe in use of our product.

KEY TAKEAWAY: -

- Natural soap is more beneficial for our skin and for the environment.
- Choose natural soap instead of commercial soap.

- Reduce wastage when using soap:

Lesser commercial soap wastage=lesser pollution on Earth

Lesser natural soap wastage=lesser wastage of natural resources.

Difference between commercial and natural soap as per surveys we have done:-

Handmade organic soap,

- Retain all of the natural glycerin
- Glycerin attracts moisture to your skin, providing your skin with more moisturizing properties than commercial soaps.
- They are blended with pure vegetable oils or butters, pure essential oils and botanicals which are healthier for the skin.

So on the basis of our analysis, it can be said with certainty that we have made efforts to reach all of you in every ream and it's going to be successfully delivered to you as per your specifications ,opinions in regards with the special concern to each and every one for their healthier skin maintenance.

We are happily, courageously introducing our new initiative "AMATHA".

Moisturizer + Cleanser + Trust = "AMATHA".

RAW MATERIALS USED

Raw material selection is very important in determining the quality and price of a product. If raw material quality is low, products made of them cannot be of superior quality. At the same time, materials with lower prices are to be identified. The raw materials required for the production of toilet soaps are:

1. Caustic soda
2. Coconut oil
3. Filler A, Sodium silicate
4. Filler B, Talcum powder
5. Oil colour
6. Rosin
7. Water
8. Natural fragrance
9. Recycled paper for packing.

These raw materials are procured from genuine suppliers so that quality and genuine price can be ensured.

Machinery

Machinery for toilet soap manufacturing:

- Mould set
- Vessels and dishes
- Towel

Procedure

Step 1: 350ml of water was taken in a steel vessel into which 300 gm of caustic soda was added which was kept undisturbed for 24 hrs.

Step 2: Next day, filler A was added into the vessel and was stirred for 5 minutes.

Step 3: Another vessel containing 1 kg of coconut oil was taken. From this 25 ml of coconut oil was taken into a beaker and rosin was added to it. Meanwhile mould was taken and smeared with lamp oil or Vaseline gel on the inner surface for easy removal of soap.

Step 4: The mixture of Caustic soda – filler A {Caustic soda - Sodium silicate mixture} was slowly poured into the vessel containing coconut oil and was stirred continuously for 10 minutes [unidirectional].

Step 5: Then, filler B was added into it slowly and was stirred continuously for 20 minutes until it get condensed.

Step 6: Natural fragrance and oil colour was added into it and was stirred thoroughly.

Step 7: To this mixture, already prepared rosin was added and stirred properly.

Step 8: This mixture was poured into mould slowly and was left undisturbed for 3 to 4 days.

Step 9: Finally, soap was removed from the mould and was left open for another 3 to 4 days.

Future scope

In future, we would like to incorporate Nano Zinc as well as Nano Copper with it. Zinc deals with inflammatory acne and scarring. Copper plays a key role in synthesis and stabilization of skin proteins.