

## ORGANIC MATERIAL AS EDIBLE AND HYGIENIC SOAP TO AGAINST THE COVID-19 PANDEMIC

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### Abstract

Due to the covid-19 pandemic, our team decide to make an organic soap that is edible to avoid using the public soap and less contact to the surface of the public soap that may contains bacteria. The soap is the eco-friendly and easy make. Moreover, the soap is made by organic killing agent such as coconut oil to replace the strong alkaline such as NaOH (sodium hydroxide) or lye that can easily hurt our skin. The soap also contains of strong alkaline soap such as mint to reach the same cleaning level like soaps in the market. Furthermore, the soap also less bubbles soap because is absence of SLES (sodium laureth sulphate) that act as foaming agent.

We decide to made two types of soaps, one is no foaming soap and the other is foaming soap. For no foaming soap, we use all easy and simple ways to make the soap without any chemical substance such as NaOH or KOH. While for foaming soap, we use vegetable oil with KOH (food grade) to replace lye or NaOH. We also use some salt to make the soap to be more stable and the foam to be finer.

The soap is low cost and could be affordable to all family. Lastly, it can also raise public hygienic awareness and help in contribution on against the Covid-19 Pandemic.

Keywords: edible, eco-friendly, easy make, low cost, cold process

### 1. INTRODUCTION

Due to the covid-19 pandemic, we need to sanitize and wash our hand frequently. According to Harvard Health Publishing, our hands covered by 5 million of bacteria in our surface skin.

Soap and water are a time-honoured technique that it is the best way to remove visible soilage and bacteria. We can usually see the soap at our side like public toilet, kitchen and also school. So, our team member decide to make an organic edible and hygienic soap called SOa+P as a small contribution to the society to against the pandemic.



## 2. OBJECTIVE

The aim of SOa+P is to reduce the contact on sharing or using the public soap in the public toilet. This is because the surface of the soap contains many bacteria that we couldn't see. And maybe it will become the source of spreading the bacteria to everyone. So, we design the soap to be individually packed and easy for taking to anywhere at anytime to let everybody have an individual soap. Furthermore, the soap in the market is inedible and undigested, if children accidentally eat, it may cause the respiratory tract been stuck and soap poisoning. And it would be more work on sending the kids to hospital and do many treatments such as bronchoscopy and endoscopy. Therefore, our soap is made by edible material to prevent on accident happens to the child. Moreover, the soap is harmless to skin. We use the materials that are calm to skin and would not hurt to it. Next, we also use low-cost material so that the lowest rung of people could also effort.

## 3. NOVELTY & INVENTIVENESS

SOa+P is developed by a small institute called Pluto that are facing no soap provide at the public toilet for people to wash hand. This is unhygienic to people that just finish on their nature call. Furthermore, especially in the covid-19 season, people need more concentrated to their hygienic. In other story, our institute always saw on newspaper that children accidentally treat the soap as a sweet and ate it. This leads the child having soap poisoning and need send to hospital immediately.

## 4. PRACTICALITY & USEFULLNESS

This product is expected to cultivate people to care on their hygienic by washing hand to prevent infection. Although our body have three basic lines of defense, but we still need to prevent to reduce the risk of infection. Next, the product also expected to minimize on having soap poisoning especially in children. Our soap is edible and wouldn't effects on the child. So, the child could be safe and parents wouldn't be troublesome.

## 5. CONCLUSION

It is important for a society to keep hygiene and aware on the cleansing. SOa+P really benefits small all social class of people because it is low cost, easy made, organic and the most important is it is convenience for all people to bring to anywhere at anytime. We also encourage people to wash their hand frequently to keep their hand cleans and protect themselves away from bacteria.