



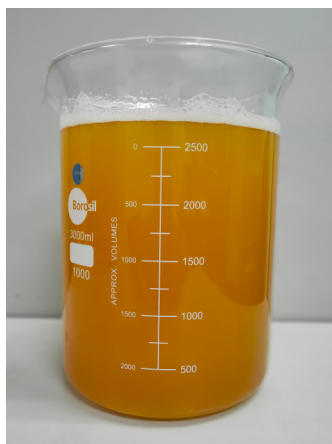
CSIR-Central Mechanical Engineering Research Institute

Mahatma Gandhi Avenue, Durgapur - 713209

Basic Liquid Soap (BLS) for hand wash:

Respiratory infections are transmitted through different sized droplets. According to current evidence, the primary route of transmission of COVID-19 virus is through respiratory droplets or contact routes. Transmission through contact occurs when hands contaminated with the virus touch the mucosa of the mouth, nose, or eyes. Contaminated hands are the primary source of indirect contact transmission which helps the virus to spread across different surfaces. Consequently, hand sanitation is the most effective measure to avoid the proliferation of COVID-19 virus. In spite of this, the availability of hand sanitation facility which includes sanitizers containing alcohol and combined soap-water solution is limited in the low-and middle-income groups. As per the estimate provided by WHO and UNICEF, around 3 billion people lack hand sanitation facilities at home globally. In addition, due to enormous demand the availability of the above products has reduced drastically. To tackle this situation, daily liquid soap production needs to be increased and the process needs to be easy and fully mechanized to meet the huge demand.

To meet the need of the society CSIR-CMERI took the initiative for the preparation of basic liquid soap in a cost effective manner so that the soap can be made affordable for the masses. For this purpose the soap is prepared from easily available palm oil. The oil has been saponified with appropriate proportions of caustic potash solution. The soap solution thus formed is mixed with foaming agent, moisturizing agent, appropriate colour and essential oil for fragrance purpose. The pH level of the soap solution is adjusted with neutralizing agent till it reaches a desirable level. A mechanized soap making unit has been fabricated so that large quantities of palm oil and caustic potash can be mixed with other important ingredients to produce soap in ample quantity on daily basis. The produced liquid soap can then be stored in a dispensing unit for future use as a hand wash. However, the idea behind soap making is to provide hands on training to the NGOs and SHGs for downstream knowledge generation, so that they can easily prepare soap for fighting COVID-19.



Basic Liquid Soap (BLS) for hand wash

Ingredients:

- Palm Oil
- Potassium Hydroxide
- Sodium laureth sulfate (SLES)
- Glycerine
- Boric acid
- Essential Oil
- Colour
- Distilled Water

For further details please contact
Dr. Amit Ganguly, Senior Principal Scientist
Phone: 9434214863; E-mail: a_ganguly@cmeri.res.in

