EK BHARATH SHRESHT BHARATH

REPORT ON

SANITIZER PREPARATION

AMALJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY

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REPORT

Coronavirus (COVID-19), the new name for the disease being caused by the recent coronavirus, SARS-CoV-2 is all over the news. A lot of information is being presented about how help prevent Coronavirus (COVID-19) from affecting you and your family. Perhaps the most important thing to know is that medical experts agree on this: One of the best ways to stay healthy is to wash your hands with hand sanitizer.

When shopping for hand sanitizer, make sure you choose a sanitizer that contains between 60-95% alcohol. Also, when you use hand sanitizer, make sure you do so the right way.

Alcohol is effective at killing different types of microbes, including both viruses and bacteria, because it unfolds and inactivates their proteins.

This process, which is called denaturation, will cripple and often kill the microbe because its proteins will unfold and stick together. Since the outbreak of COVID-19, sales of hand sanitisers have soared. It's become such a sought-after product that pharmacies and supermarkets have started limiting the number that people can buy at one time. Though hand sanitisers can help reduce our risk of catching certain infections, not all hand sanitisers are equally effective against coronavirus.

There are two main types of hand sanitisers: alcohol-based and alcohol-free. Alcohol-based hand sanitisers contain varying amounts and types of alcohol, often between 60% and 95% and usually isopropyl alcohol, ethanol (ethyl alcohol) or n-propanol. Alcohol is known to be able to kill most germs.

Alcohol-free hand sanitisers contain something called quarternary ammonium compounds (usually benzalkonium chloride) instead of alcohol. These can reduce microbes but are less effective than alcohol.

Not only are alcohol-based hand sanitisers found to be effective at killing many types of bacteria, including MRSA and *E coli*, they're also effective against many viruses, including the influenza A virus, rhinovirus, hepatitis A virus, HIV, and Middle East respiratory syndrome coronavirus (MERS-CoV)
Alcohol attacks and destroys the envelope protein that surrounds some viruses, including coronaviruses. This protein is vital for a virus's survival and multiplication. But a hand sanitiser needs to be at least 60% alcohol in order to kill most viruses.

Hand sanitisers with less than 60% alcohol were also found to be less effective at killing bacteria and fungi and may only reduce the growth of germs rather than killing them outright.

Alarm over coronavirus has caused a run on hand sanitizers. And now, sanitizers from Purell and other brands are exceedingly hard to come by. Where it isn't sold out, enterprising sellers are charging outrageously inflated prices simply because they can. If you don't have any hand sanitizer, you're not likely to get some while the manufacturers create enough supply to meet the frenzied demand caused by panic over coronavirus.

The present scenario created a huge scarcity of sanitizers in the market which made a panic situation among the people. And its really hard if its not available in a place where people meet. Like wise the situation in our college. In order to overcome the situation in our college, and to distribute it among the people inside our college, we

decided to prepare hand sanitizer in the environmental lab of civil department of our college under the guidance of Dr. AJU MATHEW GEORGE, asst. prof., dept. of civil engineering and is coordinated by nodal officer Mr. AJAI THAMPY. We tok the pemission for using the lab and also purchased the commodities needed for the preparation. It includes isopropyl alchohol, aloevera gel, glycerine etc.

Preparation was done on 11/03/20 and 12/03/20 as planned. The prepared sanitizer were distributed among the staff in our college and is kept in the common places of our college like canteen, library, place where attendance register is kept etc. We inaugurated the event by handing over the prepared sanitizer to our principal Mr. Z V LAKAPARAMBIL.

Preparation of hand sanitizer in civil engineering environmental LAB

PREAPRED SANITIZER SAMPLE BOTTLES

INAUGURATING BY HANDING OVER FIRST BOTTLE TO PRINCIPAL