S.R.N.K GOVERNMENT DEGREE COLLEGE

BANSWADA, KAMAREDDY DIST.

(Affiliated to Telangana University with NAAC 'B' Grade)

REPORT ON

SANITIZER PREPARATION

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REPORT

Corona virus (COVID-19), the new name for the disease being caused by the recentcorona virus, SARS-CoV-2 is all over the news. A lot of information is being presented about how help prevent Corona virus (COVID-19) from affecting you andyour family. Perhaps the most important thing to know is that medical experts agreeon 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 sanitizers 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 sanitizers can help reduce our risk of catching certain infections, not all hand sanitizers are equally effective against coronavirus.

There are two main types of hand sanitizers alcohol-based and alcohol-free. Alcohol-based hand sanitizers 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 sanitizers contain something called quaternary ammonium compounds (usually benzalkonium chloride) instead of alcohol. These can reduce microbes but are less effective than alcohol.

Not only are alcohol-based hand sanitizers 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 corona virus (MERS-CoV)

Alcohol attacks and destroys the envelope protein that surrounds some viruses, including corona viruses. This protein is vital for a virus's survival and multiplication. But a hand sanitizer needs to be at least 60% alcohol in order to kill most viruses.

Hand sanitizers 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.

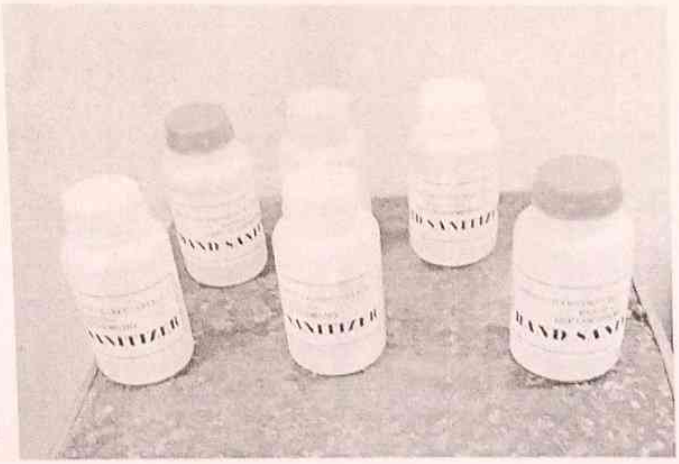
Alarm over corona virus has caused a run on hand sanitizers. And now, sanitizers from Purell and other brands are exceedingly hard to come by. Where it isn't sold out, enterprising sellers are charging outrageously inflated prices simply because they can. If you don't have any hand sanitizer, you're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

The present scenario created a huge scarcity of sanitizers in the market which madea panic situation among the people. And it's really hard if it's not available in a place where people meet. Likewise 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 Chemistry lab of ourcollege under the guidance of our Chemistry Lecturers.

Preparation of Sanitizer by the students

Distribution of Sanitizer to Municipal workers by the Students

Distribution of Sanitizer to Departments



Hand Sanitizers Bottles