

Alcohol Versus Sodium Hydroxide As A Hand Sanitizer

With the current focus world-wide on the Covid-19 (Corona Virus) hand sanitizers which traditionally have used an ethanol (alcohol) base have been widely recommended as an effective destroyer of envelope viruses, which the Corona Virus is. However they need to contain at least 60% ethanol.

Note: The envelope is composed of two lipid layers interspersed with protein molecules and may contain material from the membrane of a host cell as well as that of viral origin.

Hospitals use ethanol at 80% and this is effective against most envelope viruses in breaking down the protein barrier. However some viruses have developed a resistance to ethanol.

Sodium Hydroxide which is a common ingredient in soap has been shown to be effective in removing proteins, nucleic acids, yeast, bacteria and viruses.

Sodium Hydroxide is a particularly severe protein denaturing agent that inactivates the virus extremely rapidly by attacking the outer protein envelope.

It performs better than the ethanol in that such high concentrations are not required as is the case with alcohol based products.

It is interesting that experts world-wide recommend washing hands with soap and water and an ingredient of soap is sodium hydroxide.

