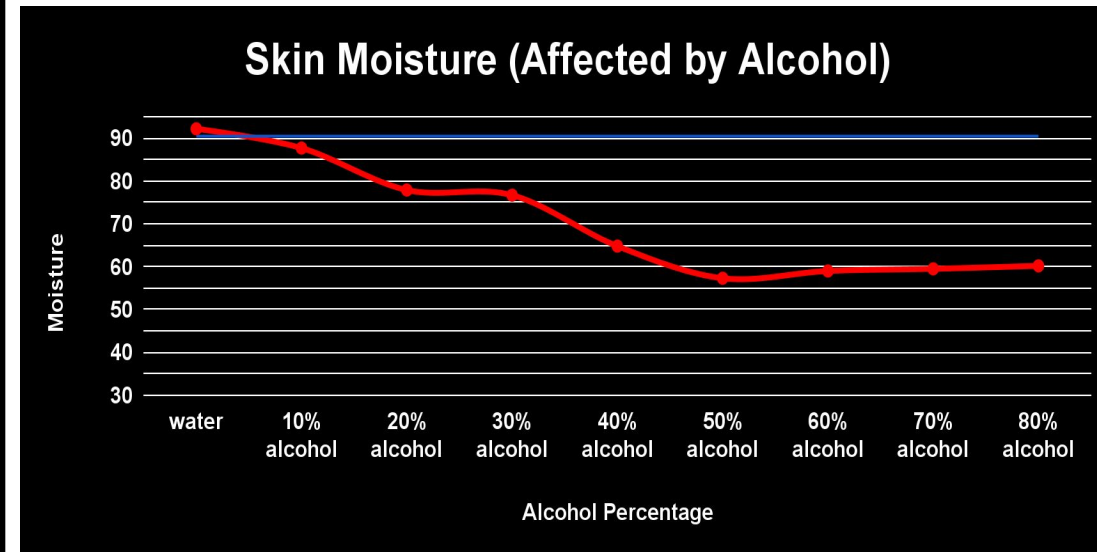


Question: What percentage of alcohol in hand sanitizers affect the amount of moisture in skin the most?

- ★ Need hand sanitizers but afraid it dries your hand?
- ★ Excessive use of hand sanitizers containing alcohol can cause dry hands that may lead to bleeding and skin discolouration.
- ★ What is the ideal percentage of alcohol that disinfects and contain moisture in hands?

Data & Results:



Methodology:

- ★ First, we cut 9-10 identical cloths out, each measuring 3cmx1cm and every one is of the same type of cloth.
- ★ Then, we dropped each piece of cloth into different solutions, each consisting of different concentrations of alcohol (10% to 90%) and 2 control setups containing just water and mineral oil respectively with the same amount of liquid, 4 ml being 100%. the volume of alcohol and mineral oil varies but the total volume is always 4 ml (e.g. 50% alcohol concentration → 2 ml alcohol, 2 ml oil)
- ★ After soaking it for 2-5 minutes, we took each cloth out and waited for another 2-5 more minutes for it to dry.
- ★ Afterwards, we measured the amount of moisture using a skin moisture detector.

Interpretation and Conclusion:

- ★ Our data verified our hypothesis to a certain extent.
- ★ Moisture level in our skin is no longer affected by the concentration of alcohol in hand sanitisers from 45% onwards.