



Hand Sanitiser

We use sanitiser to protect us from germs when we can't wash our hands. Make your own to understand a little more about how it works, using materials found at your local shop or pharmacy.

Materials

- 🚀 170 mL Ethanol
(Methylated spirits is 95% ethanol)
- 🚀 3 mL Glycerol or glycerine
- 🚀 8 mL Hydrogen peroxide (H_2O_2) 3%
- 🚀 19 mL water (boiled then cooled)
- 🚀 Mixing container (over 1 cup capacity)
- 🚀 Spoon
- 🚀 Clean 200 mL pump or spray bottle labelled:
"Sanitiser: Keep away from fire! Do not eat!"
- 🚀 Funnel

Method

SAFETY FIRST: Get an adult to help with this activity to be sure no materials get into your eyes or mouth. Wear glasses to protect you from splashes.

Step 1: Measure ethanol, glycerol and hydrogen peroxide into container. Stir carefully.

Step 2: Add cooled, boiled water and stir again to combine all materials.

Step 3: Pour into labelled storage bottle using funnel. Seal immediately and keep away from fire!

TO USE: Spray a small amount of sanitiser onto one hand and rub vigorously to cover all surfaces of both hands (don't forget between your fingers). Once your hands are dry, the alcohol has completely evaporated and you are ready to go.

What is happening? The Science explained.

The active ingredient in sanitisers are alcohols such as ethyl alcohol (a.k.a. ethanol) or isopropyl alcohol (a.k.a. rubbing alcohol). These alcohols kill many bacteria and viruses by breaking down and changing the shape of proteins in their protective outer membrane. According to experts at the World Health Organisation (who developed this recipe), sanitisers should have at least 60% alcohol volume to work the best. This sanitiser also includes glycerine as an emollient to stop skin from feeling dry. As well as hydrogen peroxide to reduce growth of microbes while inside the sanitiser bottle.

