

Modified WHO formulations for surgical hand preparation



Formulation I

Final concentrations: ethanol 80% wt/wt, glycerol 0.725% vol/vol, hydrogen peroxide 0.125% vol/vol.

Ingredients:

1. ethanol (absolute), **800 g**
2. H₂O₂ (3%), **4.17 ml**
3. glycerol (98%), **7.25 ml** (or 7.25 x 1.26 = 9.135 g)
4. top up to **1000 g** with distilled or boiled water

Sources:

- Suchomel M KM, Kundi M, Pittet D, Rotter ML. Modified World Health Organization hand rub formulations comply with European efficacy requirements for preoperative surgical hand preparations. *Infect Control Hosp Epidemiol.* 2013; 34(3):245–250.
- Allegranzi B, Aiken AM, Zeynep Kubilay N, Nthumba P, Barasa J, Okumu G et al. A multimodal infection control and patient safety intervention to reduce surgical site infections in Africa: a multicentre, before–after, cohort study. *Lancet Infect Dis.* 2018; 18(5):507–515.

Formulation II

Final concentrations: isopropanol 75% wt/wt, glycerol 0.725% vol/vol, hydrogen peroxide 0.125% vol/vol.

Ingredients:

1. isopropanol (absolute), **750 g**
2. H₂O₂ (3%), **4.17 ml**
3. glycerol (98%), **7.25 ml** (or 7.25 x 1.26 = 9.135 g)
4. top up to **1000 g** with distilled water

Quality assurance and efficacy must be assured

