

Hydro-alcoholic solution

- [Hydro-alcoholic solution](#) (called SHA)
- Protocol to fabric the solution by World Health Organization (WHO)

	10 L	1 L	100 mL
Alcohol (ethanol 96°)*	8,333 L	833 mL	83 mL
Hydrogen peroxyde (3 %)	0,417 L	42 mL	4,2 mL
Glycerol 98 %	0,145 L	14 mL	1,4 mL
Clean water (distiled, boiled and frozen)	q.s.p.	q.s.p.	q.s.p.

* One can use isopropanol at 99,8 % (7,515 L for a final solution of 10 L).

- To wash your hands properly, apply [five movements](#)!
- The question asked directly to Prof. D. Pittet (the inventor of the SHA) to know the minimum ethanol concentration: " It is advisable to use a hydro-alcoholic solution with a minimum concentration of 60% alcohol, ideally 75% to 80% " Which means that if you only have at your disposal alcohol at 70° (for example camphorated alcohol), then you can make your SHA without adding water : 100mL of 70° alcohol + 5mL of H2O2 and 2mL of glycerol gives a final alcohol concentration of about 66.5°. The WHO formulation says to let it rest for 3 days (but well, after 24 hours, the effect of H2O2 is clearly diminished on the skin, in fact).

Scientific references

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