



ISOPROPYL ALCOHOL VS EHTANOL

When considering the area of hospital disinfection, the wood alcohol refers to two water-soluble skin antiseptics, i.e., Isopropyl alcohol and Ethanol (denatured spirit).

PROPERTIES

Spectrum of Activity	Denatured Spirit	Isopropyl Alcohol
Bactericidal against E.Coli, S.Typhi, Virucidal, Sporocidal	More volatile – therefore lesser duration of action	Less volatile – therefore more time of contact
Skin penetration	Less	Being more lipid soluble agent, it allows more skin penetration even in the presence of protein based foreign materials like blood
Bactericidal activity	Less bactericidal even at 70% dilution	More potent ⇒ Bactericidal at strongest dilution
Phenol coefficient • S.Typhi • Staphylococcus	0.04 0.04	0.6 0.5
Toxic effects	Contains methyl alcohol which is highly toxic if ingested accidentally	Does not contain methyl alcohol ⇒ Hence, least toxic
Patient convenience	Very inconvenient. Swabs have to be made manually from the cotton bale & put in a glass jar to be dipped in spirit	MANWARD ALCOHOL SWAB is ready-to-use nonwoven cellulose paper saturated with Isopropyl alcohol ⇒ Highly convenient
Sale & cost analysis	Sale is under legal jurisdiction – therefore cumbersome	Isopropyl alcohol swabs are not subject to legal jurisdiction making them easily available
Wastage	<ul style="list-style-type: none"> • Loss by evaporation • More volume is consumed because of wad of cotton. Also, excess alcohol squeezed out as waste • Misused for cleaning purposes 	MANWARD ALCOHOL SWAB, being packed as single-use pouches, is inventory controlled.

From the above, it can be easily deduced that Isopropyl alcohol swabs(MANWARD ALCOHOL SWAB) have a definite advantage over the denatured Spirit swabs.

References:

- Recent advances in Microbiology – Smith
- Medical Microbiology – Jawetz
- Text book of Microbiology – Anant Narayan & Panikar
- Approach to Microbiology – Chopra K.L.
- Principles of Microbiology – Andersons Janes