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EPT: MEDICINE AND SURGERY  
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ASSIGNMENT

Classification of alcohols:

Primary alcohols ( $1^\circ$ ): The number of hydrogen atoms attached to the carbon atom bearing the hydroxyl group are three or two. Example:  $\text{CH}_3\text{OH}$  - methanol ( $1^\circ$ )

Secondary alcohols ( $2^\circ$ ): The number of hydrogen atoms bearing the hydroxyl group is one. Example:  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$  - Propan-2-ol ( $2^\circ$ )

Tertiary alcohols ( $3^\circ$ ): The number No hydrogen atoms attached to the carbon atom bearing the hydroxyl group. Example:  $(\text{CH}_3)_3\text{C}-\text{OH}$  2 - methylpropan - 2 - ol ( $3^\circ$ )

Monohydric alcohols have one hydroxyl group present in the alcohol structure. Dihydric alcohols are also called glycol and have two hydroxyl group present in the alcohol structure while trihydric alcohols or triols have three hydroxyl groups present in the structure of the alcohol. Polyhydric alcohols or polyols have more than three hydroxyl groups.

Solubility:

Lower alcohols with up to three carbon atoms in their molecules are soluble in water because these lower alcohols can form hydrogen bond with water molecules. The water solubility of alcohols decreases with increasing relative molecular mass.

All monohydric alcohols are soluble in organic solvents. The solubility of simple alcohols and polyhydric alcohols is largely due to their ability to form hydrogen bonds with water molecules.

