

VIII.E ALCOHOLS (ROH)

Alcohols are named in a similar way to ketones, the site of the alcohol MUST be included in the name (even if the alcohol is at C-1). The family ending is 'ol' and the prefix is hydroxy'. Alcohols are lower priority than carboxylic acids and their derivatives, aldehydes and ketones.

Example

1. Give the IUPAC name for $\text{CH}_3\text{CH}=\text{CHCH}_2\text{CH}_2\text{OH}$

OBSERVATIONS

Redraw the structure: $\text{CH}_3\text{CH}=\text{CHCH}_2\text{CH}_2\text{OH} \Rightarrow \begin{array}{cccccc} \text{C} & - & \text{C} & = & \text{C} & - & \text{C} & - & \text{C} & - & \text{OH} \\ & & 5 & & 4 & & 3 & & 2 & & 1 \end{array}$

Fill out the template

	OBSERVATION	IMPLICATION
Parent Group and Site	Alcohol at C-1	1-...ol
Longest Carbon Chain/Ring	5 Carbons	pent..
# C=C or C≡C bonds and Site	1 C=C at C-3	penten
Final Word		3-penten-1-ol
Substituents and Sites	None	
Alphabetizing substituents		

SOLUTION Compound is 3-penten-1-ol

[Note. The '1' is placed before the 'ol' to show it is the site of the alcohol, not the alkene].