

Complete the word equations for hydroxyl

1. Alcohol + conc H_2SO_4 /reflux $\rightarrow$
2. Alcohol + SOCl_2 or PCl_5 $\rightarrow$
3. Alcohol + Na $\rightarrow$ +
4. Alcohol + Carboxylic acid/ H^+ /reflux $\rightarrow$ +
5. Alcohol + acyl chloride $\rightarrow$ +
6. 1° alcohol + KMnO_4 or $\text{K}_2\text{Cr}_2\text{O}_7$ / H^+ /heat $\rightarrow$ $\rightarrow$
7. 2° alcohol + KMnO_4 or $\text{K}_2\text{Cr}_2\text{O}_7$ / H^+ /heat $\rightarrow$
8. 1° alcohol + Cu/ 400°C $\rightarrow$
9. 2° alcohol + Cu/ 400°C $\rightarrow$
10. Alcohol + conc HCl/ ZnCl_2 $\rightarrow$
11. Methyl alcohol + I_2 / NaOH $\rightarrow$ +
12. Phenol + Na $\rightarrow$ +
13. Phenol + NaOH $\rightarrow$ +
14. Phenol + $\text{Br}_2(\text{aq})$ $\rightarrow$
15. Phenol + $\text{FeCl}_3(\text{aq})$ $\rightarrow$