Answer on Question#78562 – Chemistry – Organic chemistry

Question: Determine the results of the electrophilic substitution using phenol bromation as an example. Consider the electronic effects of the substituent.

Answer:

2,4,6-tribromophenol

2,4,6-tribromophenol is a main product of phenol bromination. The hydroxyl group is a strong activator in electrophilic substitution and directs the process in *ortho*- and *para*- directions because of positive mesomeric effect. A non-bonding electron pair of Oxygen is involved in resonance stuctures of phenol with *o*- and *p*- sites for electrophilic attack:

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