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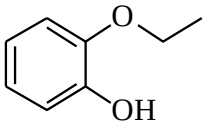
Process for the preparation of 2-ethoxy-phenol

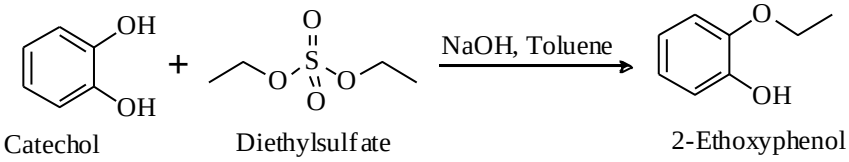
A process for the preparation of 2-ethoxy-phenol of formula-1, which is represented by the following structural formula.



Formula-1

2-ethoxy-phenol is an aromatic ether; one of hydroxyl group of catechol has been alkylated to give the corresponding ethyl ether. 2-ethoxy-phenol is a low melting (20-25 °C), high-boiling (216-217 °C) smoke flavour compound.

The present disclosure provides an improved process for the preparation of 2-ethoxy-phenol with reproducibly in good purity and yield, which is schematically presented as follows.



The following example specifies the conditions of the process for the preparation of 2-ethoxy-phenol.

Example-1: Process for the preparation of 2-ethoxy-phenol.

Pyrocatechol (100 gm) and Diethyl sulphate (112 gm) were added to the mixture of toluene (500 ml) in aqueous sodium hydroxide solution at 25-30°C and stirred the mixture for 10 minutes. Heated the mixture to 60-65°C and stirred for 3 hours. Further heated the mixture to reflux. Distilled-off the mixture completely to get the product in distillate. Cooled the mixture/distillate to 15-20°C. Aqueous sodium hydroxide solution was added to the mixture at 15-20°C and stirred for 15 minutes. Separated the aqueous layer from organic layer. Toluene (400 ml) was added to the aqueous layer. Cooled the mixture to 15-20°C. Mixture slowly treated with aq. Hydrochloric acid and stirred for 15 minutes at 15-20°C. Filtered the mixture through hyflow. Separated the organic layer from aqueous layer. Organic layer treated with carbon powder and distilled-off the organic layer to obtain the titled product.

Yield: 65 gm; **Assay by HPLC:** 99.4%; Water **content by KF:** 0.13% w/v.

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