4-Phenylphenol

Product Number 13,434-1
Store at Room Temperature

Replacement for Product Number H 7751

**Product Description**

Molecular Formula: C\(_{12}\)H\(_{10}\)O
Molecular Weight: 170.2
CAS Number: 92-69-3
Melting point: 164-165 °C
Boiling point: 305-308 °C
Synonyms: p-phenylphenol; 4-hydroxydiphenyl; biphenyl-4-ol; [1,1'-biphenyl]-4-ol

4-Phenylphenol is a compound that is an intermediate in the manufacture of resins.\(^1\) It is also an oxidation by-product that may be formed during the manufacturing of phenol. *In vivo*, 4-phenylphenol may undergo glucuronidation modification by a 4-hydroxybiphenyl UDP-glucuronyltransferase, which has been isolated from bovine liver microsomes.\(^2\)

4-Phenylphenol has also been used as a sole carbon source to support the growth of *Pseudomonas* sp. strain FH12.\(^3\)

4-Phenylphenol has also been investigated for its ability to mimic the effects of natural steroid hormones. A study in *Saccharomyces cerevisiae* of the structural features of phenolic compounds, including 4-phenylphenol, that contribute to their estrogenic effects has been reported.\(^4\) 4-Phenylphenol and other aromatic compounds have been used in a study of MCF-7 cells to probe their effects on estrogen receptor binding, cell proliferation and regulation of estrogen sensitive proteins.\(^5\) An HPLC assay for the detection of 4-phenylphenol and its metabolites after reaction in the presence of rat liver cells, human liver cells, and kidney cells has been published.\(^6\)

**Precautions and Disclaimer**

For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**

This product is soluble in methanol (50 mg/ml), yielding a clear, colorless solution.

**References**

1. The Merck Index, 12th ed., Entry# 7459.

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