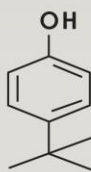


p-tert-butylphenol (PTBP)



PRODUCT IN FOCUS



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INTRODUCTION

p-tert-Butylphenol (PTBP), is an aromatic organic compound consists of a phenol ring substituted with a tert-butyl group at the para (4-) position, giving it improved thermal stability and hydrophobic properties compared to phenol. PTBP features significant hydrogen bonding capabilities, which enhance its solubility in organic solvents. PTBP is used primarily as an intermediate in the manufacturing of polycarbonate plastics, phenolic resins, and epoxy resins.

MANUFACTURE

It is synthesized by incorporating a gaseous isobutylene or liquid tert-butanol into phenols in the presence of an acid-activated clay or sulfuric/phosphoric acid on an alumina support as a catalyst. The reaction takes place at elevated temperatures (typically between 150° C and 250° C) and moderate to high pressures. It is further purified by fractional distillation to remove unreacted phenol, ortho-isomer and multi-alkylated byproducts.

APPLICATIONS

The chemical properties of PTBP make it a versatile substance in various industrial applications.

⚠ Polymer and resin industries:

- It functions as a key monomer and chain-terminator in the polymer industry, regulating molecular weight and providing excellent thermal and UV stability

⚠ Adhesive and coating:

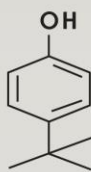
- Its phenolic structure contributes to improved adhesion, making it an essential ingredient in formulating high-performing adhesives.
- PTBP's ability to enhance the thermal and chemical resistance of adhesives allows for greater durability in a variety of applications, including automotive, construction, and electronics.
- It helps to improve the gloss, hardness, and resistance to moisture and chemicals, which are vital for protective coatings.

⚠ Pharmaceutical industry:

- Primarily used as an intermediate for the manufacturing of APIs, as a polymerization regulator for drug delivery coatings and as a stabilizing antioxidant in formulations to prevent degradation of sensitive active ingredients.
- It also has usage as a diagnostic agent.
- ⚠ Used as a raw material intermediate to synthesize perfumery ingredients like para-tert-butyl cyclohexyl acetate (PTBCHA).

Synonyms	4-tert-butylphenol, 1-tert-butyl-4-hydroxybenzene, Butylphen, 1-hydroxy-4-tert-butylbenzene,
CAS no.	98-54-4
EINECS no.	202-679-0
Molecular formula	C ₁₀ H ₁₄ O
Molecular weight	150.22
Structure	

p-tert-butylphenol (PTBP)



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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White flakes
Purity	%	Min 99
Melting Point	°C	Min 97
Moisture	%	Max 0.3
APHA	-	Max 50

STORAGE & PRECAUTION

Storage temperature ≤ 35 °C. Store in a tightly sealed container away from direct sunlight.

PACKING

25 Kg UN approved paper bag.

REACH STATUS

Registered

ExSyn offers p-tert-butylphenol on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.