



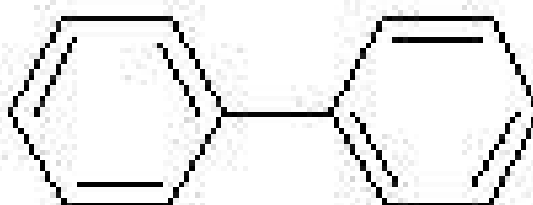
PRODUCT CODE- BYPHYT9234

 Taj Pharmaceuticals Ltd.  
**Biphenyl**  
**CAS No. 92-52-4** 

5577 TM 2145 62131 792

Biphenyl Phenyl benzene

CAS number : 92-52-4  
Molecular formula : C<sub>12</sub>H<sub>10</sub>  
Molar Weight : 154.21 g mol<sup>-1</sup>  
Density : 0.992 g/cm<sup>3</sup>  
Melting point : 68.93 °C  
Boiling point : 256 °C  
Solubility in water : Insoluble  
Dangerous for the environment : (N)  
Flash point : 113 °C  
Auto ignition temperature : 540 °C



Biphenyl is an organic compound that forms colorless crystals. It has a distinctively pleasant smell. Biphenyl is an aromatic hydrocarbon with a molecular formula (C<sub>6</sub>H<sub>5</sub>)<sub>2</sub>. It is notable as a starting material for the production of polychlorinated biphenyls (PCBs), which were once widely used as dielectric fluids and heat transfer agents. Biphenyl is also an intermediate for the production of a host of other organic compounds such as emulsifiers, optical brighteners, crop protection products, and plastics.

#### Properties

Biphenyl occurs naturally in coal tar, crude oil, and natural gas and can be produced from these sources by distillation. Biphenyl is insoluble in water, but soluble in typical organic solvents. The biphenyl molecule consists of two connected phenyl rings. Lacking functionalization, it is not very reactive.

#### Biological aspects

Biphenyl prevents the growth of molds and fungus, and is therefore used as a preservative particularly in the preservation of citrus fruits during transportation.

It is mildly toxic, but can be degraded biologically by conversion into nontoxic compounds. Some bacteria are able to hydroxylate biphenyl and its polychlorinated biphenyls

#### Biphenyl compounds

Substituted biphenyls can be prepared synthetically by various coupling reactions including the Suzuki reaction and the Ullmann reaction and have many uses. Polychlorinated biphenyls were once used as cooling and insulating fluids and polybrominated biphenyls are flame retardants. The biphenyl motif also appears in drugs such as Valsartan and Telmisartan.

## Hazards Identification

### Inhalation:

Inhalation of dust or vapors can irritate the mucous membranes and respiratory tract. Other symptoms may parallel those from ingestion exposure.

### Ingestion:

Exerts toxic effects on the central nervous system and liver. Symptoms may include headache, diffuse gastro-intestinal pain, nausea, numbness, body aches, and general fatigue.

### Skin Contact:

May cause irritation. May be absorbed through the skin with symptoms paralleling those from ingestion exposure. May cause allergic reaction in sensitive individuals.

### Eye Contact:

Vapors and dust cause eye irritation.

### Chronic Exposure:

Chronic exposure may cause peripheral nerve damage and liver injury.

### Aggravation of Pre-existing Conditions:

No information found.

## First Aid Measures

### Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

### Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

### Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

## Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

This document plus the full buyer / prescribing information, prepared for health professionals can be found at:

<http://www.tajapi.com>

or by contacting the sponsor, Taj Pharmaceuticals Limited., at:

91 022 30601000.

This leaflet was prepared by  
Taj Pharmaceuticals Limited,  
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