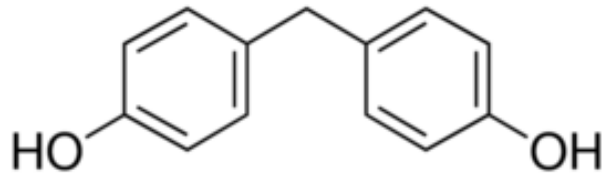


CAS 620-92-8

Bisphenol F (BPF)

C₁₃H₁₂O₂



Summary of Health Effects

BPF may harm development and the reproductive system, based on animal studies and the effects of structurally similar chemicals.

How is BPF used?

BPF has been used as an alternative ingredient to Bisphenol A (BPA).¹⁻⁶ BPF has primarily been used in epoxy resins that line food cans and in polymer plastics.⁶ BPF has been used in dental materials, structural adhesives, grouts, coatings, electrical varnishes, industrial flooring, tank and pipe linings, and road and bridge deck sealants.¹ BPF was detected in consumer products including lotions and cosmetics⁷ and as a contaminant in food including meat products, dairy products, vegetables, cereals and canned foods.^{8,9}

Toxicity: What are its health effects?

The U.S. Environmental Protection Agency (EPA) characterized BPF as a high developmental hazard and a moderate reproductive hazard based on the toxicity of closely related chemical analogs, and as a high hazard for toxicity based on repeated exposures. A study observed decreased body weight, total serum, glucose and albumin in rats fed BPF over 28 days.¹⁰

In vitro testing has shown BPF to have both estrogenic and anti-androgenic activity. BPF is as potent as BPA in estrogenic activity assays and half as potent as BPA in anti-estrogenic

activity assays.¹ BPF is readily absorbed by oral exposure in rats.¹⁰ BPF altered behavior of offspring of mice who were fed BPF for 9 days during gestation.²

Rats fed BPF excreted 43-54 percent of the dose through urine and 15-20 percent through feces. The remaining dose was detected throughout the organs including the liver, digestive tract lumen, placenta, amniotic fluid, uterus and fetuses of pregnant rats.³

Exposure: How can a person come in contact with it?

A person can come in contact with BPF from skin contact with consumer products containing BPF or breathing in contaminated air or dust and eating and drinking contaminated food.

The National Health and Nutrition Examination Survey, Biomonitoring California, and peer-reviewed studies have reported BPF in urine of people in the U.S.^{4,11,12} BPF was detected in residential dust samples in the U.S. A 2006-2010 study detected BPF in 68 percent of the indoor dust samples taken in New York homes.⁵ A 2008-2012 Albany, New York study detected BPF frequently in grocery items such as canned goods, meat, fish, seafood, dairy products, vegetables, and fats and oils.⁶

BPF has been detected in sediment, surface water and sewage. However, EPA has

characterized BPF to have a low potential for persistence and bioaccumulation.^{10,13}

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