



CAS 80-09-1 Bisphenol S (BPS)

Toxicity

EPA classified BPS as a high hazard for toxicity for repeated exposures and as a moderate hazard for developmental and reproductive toxicity based on a study in which rats produced fewer live offspring, adverse liver effects, longer estrous cycle, and showed a decreased fertility index.¹

A dose-dependent increase in focal squamous cell metaplasia of glandular epithelium in the uterus of female rats and atrophy of mammary glands in male rats after 90-days was observed.²

In vitro assays have shown BPS can bind with estrogen receptors to induce cell proliferation or inhibit androgenic activity of dihydrotestosterone.³

Exposure

BPS was detected through biomonitoring in 81% of human urine sampled from 2010-2011 in several Asian countries and the U.S.⁴ A 2000-2014 biomonitoring study of U.S. adults detected BPS in urine samples more frequently over time, from 25% in 2000, to 75% in 2014.⁵

BPS was detected in various foods gathered in 2008-2010 from an Albany, New York grocery store which included meats, seafood, fruit and vegetables.⁶

BPS was detected in the breast milk of French women in a 2015 study.⁷

A New York study detected BPS in house dust samples gathered between 2006-2010.⁸

BPS was primarily used in polymer production and thermal papers as a substitute for BPA. BPS has been detected in personal care products, polyethersulfone (PES) plastics used in baby bottles, sales receipt paper, and other paper products.^{3,8-12}

References

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