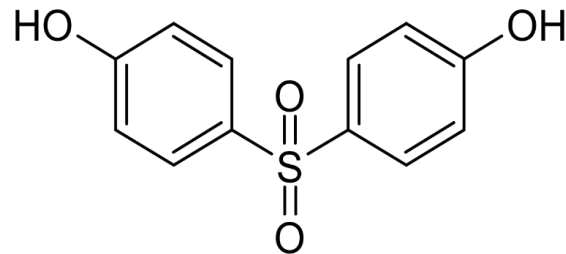


CAS 80-09-1

# Bisphenol S (BPS)

C<sub>12</sub>H<sub>10</sub>O<sub>4</sub>S



## Summary of Health Effects

BPS may harm the reproductive system, based on animal studies.

## How is BPS used?

BPS is primarily used in paper products such as thermal paper (e.g. receipt paper) as a substitute for Bisphenol A (BPA). BPS has also been used in personal care products, baby bottles, and polyethersulfone (PES) plastics.<sup>1-6</sup>

## Toxicity: What are its health effects?

The U.S. Environmental Protection Agency characterized BPS as a high hazard for repeated exposure toxicity based on adverse liver effects and a moderate hazard for developmental and reproductive toxicity based on fewer live offspring, a longer estrous cycle and decreased fertility indices.<sup>7</sup>

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 occurred after 90 days.<sup>8</sup>

*In vitro* assays have shown BPS can bind with estrogen receptors to induce cell proliferation or inhibit androgenic activity of dihydrotestosterone.<sup>1</sup>

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

A person may come in contact with BPS by eating contaminated food, breathing in contaminated dust, or from skin contact with consumer products containing BPS.

The National Health and Nutrition Examination Survey, Biomonitoring California, and peer-reviewed studies have reported BPS in urine of people in the U.S.<sup>9,10</sup> BPS was detected through biomonitoring in 81% of human urine sampled from 2010-2011 in several Asian countries and the U.S.<sup>11</sup> 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.<sup>12</sup>

BPS was detected in the breast milk of French women in a 2015 study.<sup>13</sup>

BPS was detected in various foods gathered in 2008-2010 from an Albany, New York grocery store which included meats, seafood, fruit and vegetables.<sup>14</sup>

A New York study detected BPS in house dust samples gathered between 2006 and 2010.<sup>2</sup>

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