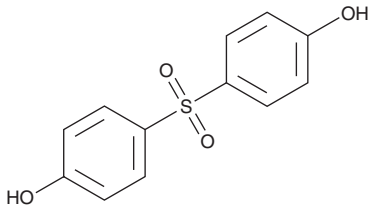
PRODUCT INFORMATION

Bisphenol S

Item No. 45556

CAS Registry No.:	80-09-1
Formal Name:	4,4′-sulfonylbis-phenol
Synonyms:	*Bis*(4-hydroxyphenyl)sulfone, BPS, NSC 683541, NSC 871, 4,4′-Sulfonyldiphenol
MF:	$C_{12}H_{10}O_4S$
FW:	250.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bisphenol S is supplied as a solid. A stock solution may be made by dissolving the bisphenol S in the solvent of choice, which should be purged with an inert gas. Bisphenol S is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Bisphenol S (BPS) is a derivative of bisphenol A (BPA), an environmental contaminant, and an endocrine disruptor.[1,2] It has been detected in surface water and sewage effluent and in personal care products, paper, and food.[3] BPS increases estrogenic activity *in vitro*, in female rats, and in male and female zebrafish. It decreases testosterone levels in male zebrafish and impairs testicular development in male offspring after maternal exposure in rats.[2,3] BPS also has neurotoxic effects, decreasing viability of SK-N-SH cells and primary rat hippocampal neurons, among other cell types.[1] It reduces dendritic length and branching in mice and increases anxiety and impairs learning and memory in rats. BPS increases serum levels of LDL cholesterol and non-esterified fatty acids (NEFA) and induces hepatic lipid accumulation in mice when administered at a dose of 1 mg/kg per day for three months.[4]

References

1. Cantua, R. and Mulligan, K. Developmental neurotoxicity of bisphenol F and bisphenol S in animal model systems: A literature review. *Neurotoxicology* **108**, 263-280 (2025).
2. Li, B., Tian, Y., Wu, X., *et al.* Maternal bisphenol S exposure impairs testicular development and sperm function in male offspring by disrupting the immune-endocrine network. *Small* e13075 (2026).
3. Rochester, J.R. and Bolden, A.L. Bisphenol S and F: A systematic review and comparison of the hormonal activity of bisphenol A substitutes. *Environ. Health Perspect.* **123(7)**, 643-650 (2015).
4. Li, S., Fan, Y., Tang, M., *et al.* Bisphenol S exposure and MASLD: A mechanistic study in mice. *Environ. Health Perspect.* **133(5)**, 57009 (2025).

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