

CAS 85-68-7

Substance name Butyl benzyl phthalate (BBP)

Toxicity

Butylbenzyl phthalate has been classified as a developmental and a reproductive toxicant by the National Toxicology Program Center for the Evaluation of Risks to Human Reproduction¹ and by the state of California.² The National Toxicology Program concluded that there is clear evidence of developmental toxicity and some evidence of male reproductive toxicity.¹ Effects in animals included reduced sperm counts, reduced male fertility, prenatal mortality, and skeletal, visceral, and external malformations.¹ Butylbenzyl phthalate has been classified as a Category 1 endocrine disruptor by the European Union.³

Exposure

The Danish EPA found butylbenzyl phthalate in the coating of a wood toy.⁴ A Dutch study of plastics in children's products found butylbenzyl phthalate in 2 out of 7 polyurethane plastics.⁵ Mono-benzyl phthalate, a metabolite indicative of butylbenzyl phthalate exposure, was found in >98 percent of the U.S. population sampled in the NHANES survey.⁶

References

1. U.S. Department of Health and Human Services, National Toxicology Program, Center for the Evaluation of Risks to Human Reproduction (CERHR). NTP-CERHR Monograph on the Potential Human Reproductive and Developmental Effects of Butyl Benzyl Phthalate (BBP). 2003.
http://cerhr.niehs.nih.gov/evals/phthalates/bb-phthalate/BBP_Monograph_Final.pdf
2. California EPA, Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. February 5, 2010.
http://www.oehha.org/prop65/prop65_list/files/P65single020510.pdf.
3. European Commission DG Environment (2002). Endocrine disruptors: study on gathering information on 435 substances with insufficient data. Final report B4-3040/2001/325850/MAR/C2.
4. Danish Ministry of the Environment, Environmental Protection Agency. Surveys on Chemicals in Consumer Products. Report 70, 2006.
http://www.mst.dk/English/Chemicals/Consumer_Products/Surveys-on-chemicals-in-consumer-products.htm.
5. Dutch Inspectorate for Health Protection and Veterinary Public Health (VWA/KvW). Screening of Plastic Toys for Chemical Composition and Hazards, Report ND05o610/01, July 2005.
6. Hatch, EE, Nelson, JW, Mustafa Qureshi, M, Weinberg, J, Moore, LL, Singer, M, and Webster, TF. (2008). Association of urinary phthalate metabolite concentrations with body mass index and waist circumference: a Cross-sectional study of NHANES data 1999-2002. *Environ Health* 7: 27-41.