

CAS 84-74-2

Substance name Dibutyl Phthalate

Toxicity

Dibutyl 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 and reproductive toxicity.¹ Adverse effects in animals included reduced fetal survival, reduced birth weight, reduced fertility in females, and damage to the developing male reproductive tract.¹ Dibutyl phthalate has been classified as a Category 1 endocrine disruptor by the European.³

Exposure

The Danish EPA found dibutyl phthalate in numerous children's products including clothing (infant), foam toys, a fluorescent light stick, school supplies, and coatings on wood toys.⁴ A Dutch study found dibutyl phthalate in a wide range of plastics in children's products.⁵ Mono-n-butyl phthalate, a metabolite indicative of dibutyl phthalate exposure, was found in >99 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 Di-*n*-Butyl Phthalate (DBP). http://cerhr.niehs.nih.gov/evals/phthalates/dbp/DBP_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. Reports 40, 60, 70, 84, 102. 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.