



### **CAS 84-69-5 Diisobutyl phthalate (DIBP)**

#### **Toxicity**

The European Union classified DIBP as a reproductive Substance of Very High Concern (SVHC).<sup>1</sup>

A 2011 study observed decreased testicular testosterone in male rats fed DIBP for 4 days.<sup>2</sup>

Borch et al. 2006 found male offspring of female rats exposed to DIBP from gestation day 7 to gestation day 20 or 21 had significantly reduced anogenital distance.<sup>3</sup>

The Chronic Hazard Advisory Panel (CHAP) determined, due to toxicological profile similarities to Dibutyl phthalate (DBP), exposure to DIBP contributes to a cumulative antiandrogenic effect with other phthalates and should be permanently banned in children's toys and child care articles at levels greater than 0.1 percent.<sup>4</sup> In 2017 the CPSC permanently banned DIBP in children's toys and childcare articles at levels greater than 0.1 percent.<sup>5</sup>

#### **Exposure**

The 2015 National Health and Nutrition Examination Survey (NHANES) monitored a metabolite of DIBP in human urine, and the levels appear to be increasing.<sup>6</sup> Metabolites of DIBP were detected in the urine of pregnant Danish women in a 2010-2012 study.<sup>7</sup> A significant correlation was found between DIBP metabolite concentrations in the urine of Danish children and increased levels of DIBP in bedroom dust and day care centers.<sup>8</sup>

#### **Other**

DIBP is used as a substitute ingredient to di-n-butyl phthalate (DBP) due to structural similarities, therefore, its' presence in products may increase.<sup>3</sup>

## References

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