

CAS 28553-12-0 (also 68515-48-0)

**Substance name** Diisononyl Phthalate

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### Toxicity

Diisononyl phthalate has been classified as a developmental toxicant by the National Toxicology Program Center for the Evaluation of Risks to Human Reproduction.<sup>1</sup> The National Toxicology Program concluded that there is some evidence of developmental toxicity in animals including reduced birth weight and abnormal development of the fetal skeleton and kidneys.<sup>1</sup>

### Exposure

The Danish EPA found diisononyl phthalate in numerous children's products including pacifiers, mittens, soap containers, school supplies, a slimy toy, packaging for cosmetics, 1 of 2 bath toys, and 1 of 2 nursing pillows.<sup>2</sup> A Dutch study found diisononyl phthalate in polyvinyl chloride in some children's products.<sup>3</sup> Monocarboxyisooctyl phthalate, a metabolite indicative of diisononyl phthalate exposure, was found in 95.2 percent of the U.S. population sampled in the NHANES survey.<sup>4</sup>

### 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-isononyl Phthalate (DINP). 2003.
2. Danish Ministry of the Environment, Environmental Protection Agency. Surveys on Chemicals in Consumer Products. Report 67, 84, 88, 90, and 102.  
[http://www.mst.dk/English/Chemicals/Consumer\\_Products/Surveys-on-chemicals-in-consumer-products.htm](http://www.mst.dk/English/Chemicals/Consumer_Products/Surveys-on-chemicals-in-consumer-products.htm).
3. 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.
4. Calafat, AM, Wong, L-Y, Silva, MJ, Samandar, E, Preau, JL, Jia, LT, and Needham, LL. (2011). Selecting adequate exposure biomarkers of diisononyl and diisodecyl phthalates: data from the 2005-2006 National Health and Nutrition Examination Survey. *Environ Health Perspect* 119: 50-55.