

DETERMINATION OF PHTHALATES IN PHARMACEUTICAL PRODUCTS

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References:

1. Serodio P., Nogueira J.M.F. Considerations on ultra-trace analysis of phthalates in drinking water. *Water Research*. 2006, 40, 2572–2582.
2. Hernandez-Diaz S., Mitchell A.A., Kelley K.E., Calafat A.M., and Hauser R. Medications as a Potential Source of Exposure to Phthalates in the U.S. Population. *Env. Health Persp.* 2009, 117(2), 185–189.
3. Kataoka H., Ise M., Narimatsu S. Automated on-line in-tube solid-phase microextraction coupled with high performance liquid chromatography for the analysis of bisphenol A, alkylphenols, and phthalate esters in foods contacted with plastics. *J. Sep. Sci.* 2002, 25, 77–85.
4. Guideline on the use of phthalates as excipients in human 12 medicinal products. European Medicines Agency, 2013. 24 September 2015. EMA/CHMP/SWP/684886/2013. Committee for Medicinal Products for Human Use (CHMP). P.1 – 52. www.ema.europa.eu
5. Derzhavna Farmakopeia Ukrainy. Kharkiv, pershe vyd. 2001. – 532.
6. Zakharkiv I. B. Dispersive Liquid–Phase Microextraction for Determination of Phthalates in Water. I. B. Zakharkiv, M. F. Zui, V. N. Zaitsev. *J. Water Chem. Tech.* 2015, 37, 78–84.
7. Drinking water standards and health advisories table. United States Environmental Protection Agency. Region IX. June 2007. 30 p. 75 Hawthorne Street, WTR-6, San Francisco, CA 94105. EPA National Primary Drinking Water Regulations. <https://www3.epa.gov>
8. B. K. Matuszewski, M. L. Constanzer, and C. M. Chavez-Eng. Strategies for the Assessment of Matrix Effect in Quantitative Bioanalytical Methods Based on HPLC-MS/MS. *Anal. Chem.* 2003, 75, 3019–3030.