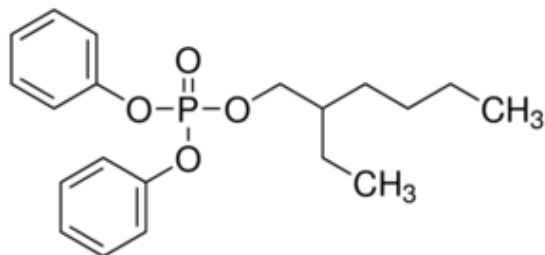


CAS 1241-94-7

Ethylhexyl diphenyl phosphate (EHDPP)

C₂₀H₂₇O₄P



Summary of Health Effects

EHDPP may cause changes to reproductive and other organ systems, based on animal studies.

How is EHDPP used?

EHDPP is mostly used in flexible polyvinyl chloride (PVC) materials as a plasticizer and flame retardant. It has also been used in polyurethanes, hydraulic fluid, rubber, paints, pigment dispersions, film, adhesives, and fabric coatings.¹

Toxicity: What are its health effects?

The U.K. Environmental Agency reported dose-dependent alterations in the testes, ovaries, liver, blood, kidney and adrenal glands in rats fed EHDPP for 90 days.^{1,2} Developmental and neurotoxicity screenings reported significant inhibition of mitochondrial activity and larval development and a reduced neuronal firing rate in the nematode *C. elegans*.^{3,4}

Exposure: How can a person come in contact with it?

A person may come in contact with EHDPP by eating contaminated food or dust, breathing in contaminated dust, or from skin contact with contaminated dust or consumer products containing EHDPP.

EHDPP has been found in household dust and a variety of foods and food packaging such as meat wrapping.^{1,2,5} EHDPP was detected in cereals, pastries, meat, fish, dairy, eggs, fruits, vegetables, beverages, oil and sweet samples gathered from Swedish markets in 2015.⁶ A Norwegian cohort study detected EHDPP in diet samples at higher levels than all other flame retardants tested.⁷

EHDPP or its metabolites have been detected through biomonitoring in blood, urine and breast milk.⁸⁻¹² DPHP, a metabolite of EHDPP, TPHP and RDP, was detected in the urine of infants in North Carolina, children in German day cares, and adults in California.¹³⁻¹⁷ EHDPP was detected in samples of chorionic villi collected during the first eight weeks of pregnancy from women in Beijing, China.¹⁸

Biodegradation studies have reported EHDPP to have a half-life of 300 days in soil or sediment and 50 days in surface water.¹ Studies have observed bioaccumulation in aquatic life.² EHDPP was detected in Canadian and New York wastewater sludge.^{19,20}

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