

## CHAP on Phthalates

It has been nearly 30 years since I served as Secretariat for the International Congress (IUPHARM) on Phthalates, written an early comprehensive review (Critical Reviews in Toxicology) and published a number of original research studies on these chemicals, and therefore feel qualified in offering my scientific opinion on the relative safety of the phthalates (PAEs).

The published literature on the PAEs is voluminous, in part, because there are several (about 8) different phthalates that often get lumped together. Indeed, the various phthalates exhibit some differences in their toxicological profile or safe properties. Much of the scientific literature pertaining to the effects of PAEs on various experimental animals have used extraordinarily high doses – doses that bear little reality to any potential human exposure. Of the 8 different phthalates, DEHP (diethylhexyl phthalate) seems to be relatively more toxic. However, even DEHP when present in medical plastics such as blood bag assemblies, infusion kits, and other essential hospital materials fails to exert any overt toxicologic manifestations. The phthalates represent a very important class of polymeric chemicals that have an established human safety record. Furthermore, they have been used for at least 75 years in both medical and non-medical products.

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