

## Phthalates in Fragrance Oils

In the last few years the use of phthalates in fragrance oils and cosmetics has gained a lot of attention. There are some phthalates that are considered harmful and others that are not. For example, nobody would consider all berries or mushrooms unsafe, though specific types have a known toxicity at certain levels. **"Phthalates" is a broad term that refers to a wide variety of compounds of differing chemical structure.** Safety concerns have been raised about Dibutyl Phthalate (DBP) and Diethyl Hexyl Phthalate (DEHP). We can assure you none of our fragrance oils contain these phthalates. **The fragrance oils we carry that are not considered phthalate-free contain Diethyl phthalate (DEP). DEP as used in fragrances is safe for human health and the environment.** The position on DEP from the International Fragrance Association (IFRA) is to make clear that consumers can use fragranced products containing DEP with confidence. In fact, the safety profile for DEP based on "Human Health Criteria" shows DEP to be safer for use on humans than any natural essential oil. **DEP is particularly useful in candle fragrances as it solubilizes fragrance into the wax and prevents "crystalization" in certain fragrance oils.**

There are two kinds of phthalates. There are bad phthalates, like DBP (Dibutyl Phthalate) CAS #84-74-2, DEHP (Di [2-Ethyl Hexyl] Phthalate) CAS #117-81-7, BBP (Benzyl Butyl Phthalate) CAS #85-68-7, DINP (Diisononyl Phthalate) CAS #28553-12-0, DIDP (Diisodecyl Phthalate) CAS #26761-40-0, DnOp or DOP (Di-n-Octyl Phthalate) CAS #117-84-0 and DnHP (Di-n-Hexyl Phthalate) CAS #84-75-3. These seven phthalates are classified as "CMR's" (carcinogenic, mutagenic or reproductive toxicants). DBP, BBP and DnHP were placed on the California Proposition 65 List as developmental toxicants in 2005 and DIDP was added in 2007. DEHP was placed on the Prop 65 List in 1988. These products were banned by the European Union for use in cosmetics and skin care products in Europe in 2004. None of these seven phthalates are currently, or have ever been, used in the fragrance industry.

**There is however another phthalate, "Diethyl Phthalate" CAS #84-66-2, which has been called the "good phthalate." This product, commonly referred to as "DEP" is used extensively in the fragrance industry as a fragrance solvent, blender, surfactant and as a fixative to help make fragrances last longer.** DEP is also used as the "denaturant" in SDA Alcohol 39 C endorsed by the US Government.

DEP has been extensively tested and has been found to be "not harmful", "not a CMR", "not a skin sensitizer", "not a skin irritant" and "not harmful to the environment." A report was published by the European Union's SCCNFP scientific committee on June 4, 2002 concerning the safety of DEP. Their conclusion was that DEP showed low levels of toxicity and it was their opinion that the "safety profile of DEP supports its use in cosmetic products." They also stated "the SCCNFP does not recommend any specific warnings or restrictions for DEP under the current conditions of use." This assessment by the SCCNFP was re-asserted in 2003 and by the SCCP in 2007.

**There are no restrictions or warnings concerning the use of DEP by the FDA (Food and Drug Administration), IFRA (International Fragrance Association), RIFM (Research Institute of Fragrance Materials) or the US EPA (United States Environmental Protection Agency).**