

Abstract

The Thesis focuses on the group of specific organic compounds with a potential risk of their endocrine disruptive effect, and appearing as UV filters in various cosmetic products. An extended list of such products was created on the basis of search in drugstores, pharmacies and perfume shops. The products were further grouped as cosmetics for adults, children, and those declared as bio products. The source data collection counted 156 individual products, with origin in 40 drugstores, 20 pharmacies, and 10 perfume shops. The data collection sites were distributed in big cities, their suburb parts, shopping parks, and small towns on many places in the Czech Republic. The products were mostly sun protection creams, oils and emulsions, body creams and emulsions, lips balsams, and hair cosmetics. In these items an occurrence of 7 organic compounds (suspected endocrine disruptors) from the SIN List, used as parts of UV filters, was followed. The compounds of interest were: ethylhexyl methoxycinnamate; benzophenone-1, benzophenone-2, benzophenone-3; 4,4-dihydroxyphenone; 4-methylbenzylidene camphor; 3-benzylidene camphor. Alternative names, product brand names, chemical structures, CAS numbers etc. were also collected from various sources. Of this group only ethylhexyl methoxycinnamate and benzophenone-3 (and their combination) were found in the inspected products, regardless of their origin (drugstores, pharmacies, perfume shops). The very common and cheap cosmetics distributed via drugstores contained these UV filters only very rarely in the category for adults consumers. The child category in the drugstore segment was completely free of them. The products retailed in pharmacies might be still seen as quite good in this respect, despite the appearance level was already higher. On the other hand the perfume shops, offering quite expensive sort of cosmetics, were found as distributors of products very rich on these two potentially dangerous chemicals. The products declared as bio were always free of these substances.