

# Several types of phthalate plasticizers, used for decades but once shunned, now safe again!

By ACSH Staff — February 5, 2014



Phthalates pronounced THAL-ates are a family of chemicals,

many of which have been added to PVC plastic to make the firm product softer and flexible. Over the course of the past decade-plus, no chemical group in common use has taken such vitriolic attacks on its safety as have phthalates.

In recent years, a distinction has come to be accepted between high molecular weight phthalates (high phthalates, HPh) and low molecular weight phthalates (low phthalates, LPh). The LPh group has been deemed more of a concern among some scientists and regulators, as well as anti-chemical activist groups, as compared with HPh s. In the EU, whose REACH standards are now evaluating different chemicals for possible toxic effects and enhanced regulation (including bans), the LPh group has been effectively marked for removal from the market within a few years, while the HPh compounds are being held in a better light.

Now a [new evaluation by the EU Commission](#) <sup>[1]</sup>, reviewing various studies and analyses (including especially one by the [European Chemicals Agency \(ECHA\) last August](#) <sup>[2]</sup>) has ruled: ... *the phthalates in toys and childcare products pose no risk to infants. The findings, which also include adult sex toys, are in line with the conclusions presented last August by the European Chemicals Agency (ECHA).*

The two phthalates assessed DINP and DIDP are both among the high phthalates. These plasticizers are often found in flexible and chewy children s toys, such as rubber duckies.

The specific comment by the ECHA goes like this:

*It is not anticipated that mouthing of erasers containing DINP or DIDP would lead to a considerable risk for children. Furthermore, no risk is expected from combined exposure to DINP and DIDP for children exposed via food and the indoor environment. Based on the risk assessment in this report, it can be concluded that no further risk management measures are needed to reduce the exposure of children to DINP and DIDP.*

While the EU (and to a significant extent, the United States, thanks to 2008 s [Consumer Product Safety Improvement Act](#) <sup>[3]</sup>) has taken steps to rid the market of LPh s in children s toys and

elsewhere, the rest of the world is not so concerned: at the global level, the trend is quite different from what is happening with low phthalates in Europe, with [DEHP still representing around 50%](#) [4] of all phthalates used worldwide.

ACSH's Dr. Ross explains: DEHP, a low phthalate and thus a chemical of high concern in the EU and here as well, is the most important plasticizer in many medical products, devices, and flexible tubes and infusion bags in hospitals. There is no equally useful product to replace it, so the largely hypothetical risk of DEHP is overlooked when trying to care for truly sick patients. We here at ACSH actually sponsored a Blue-ribbon Panel of 16 experts in 2000 to evaluate real, hypothetical, and inane alleged risks to health from DINP, the HPh rubber ducky chemical, and DEHP, in medical products. The conclusions of the expert panel chaired by the late, great, and sorely missed former US Surgeon General, C. Everett Koop were that neither of these chemicals posed any risk to health at exposures likely to occur. We still believe that to be the case, but it appears that the future is cloudy for the low phthalates in any event.

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[1] <http://www.prw.com/subscriber/headlines2.html?cat=1&id=4294>

[2] <http://echa.europa.eu/documents/10162/31b4067e-de40-4044-93e8-9c9ff1960715>

[3] <http://www.cpsc.gov/phthalates>

[4] <http://www.chemanager-online.com/en/topics/chemicals-distribution/high-phthalates-and-road-ahead>