



Toxic Free Medical Device Act

Eliminate DEHP in Medical Supplies

FACT SHEET

SUMMARY

Di(2-ethylhexyl)phthalate (DEHP) is a type of phthalate. Phthalates are a group of industrial chemicals that add elasticity and durability to some plastics, like PVC.

DEHP is commonly used to impart flexibility to IV bags and tubing. Some bags and tubing can contain up to 40% DEHP by weight. DEHP has been shown to leach out of the bags and tubing into the medication and other fluids being infused into patients' bloodstreams.

DEHP is a toxic chemical known to the State of California to cause cancer and birth defects¹.

Safer alternatives to IV bags and tubing made with DEHP already exist and are utilized by major hospitals and healthcare systems.

This bill would phase out the use of DEHP in IV bags and tubing and prohibit its substitution with other harmful ortho-phthalates.

BACKGROUND

The U.S. Department of Health and Human Services classified DEHP as reasonably anticipated to be a human carcinogen (a substance that can cause cancer)².

The U.S. Environmental Protection Agency has determined that DEHP is a probable human carcinogen².

The International Agency for Research on Cancer has classified DEHP as possible carcinogenic to humans².

Since 2009 (Ma, 2007), California has prohibited the manufacturing, selling, or distribution of children's toys and childcare articles containing DEHP³. California has also banned DEHP from cosmetic products sold in the state (Muratsuchi, 2020)⁴. The United States permanently prohibited DEHP from kid's toys in 2008⁵.

In 2012, Kaiser Permanente announced it would no longer buy IV medical supplies containing DEHP⁶.

PROBLEM

DEHP is linked to several environmental and health concerns:

- DEHP has been linked to breast, liver, lung, and testicular cancer⁷.
- DEHP is an endocrine-disrupting compound, meaning it can interfere with the hormonal system in humans, leading to adverse effects on reproductive health, development, and metabolism. It has

¹ chrome-extension://efaidnbmnnnibpcjpcglclefindmkaj/https://www.p65warnings.ca.gov/sites/default/files/downloads/factsheets/dehp_fact_sheet.pdf

² https://www.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=377&toxid=65#:~:text=The%20U.S.%20Department%20of%20Health,is%20a%20probable%20human%20carcinogen.

³ http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1101-1150/ab_1108_bill_20071014_chaptered.html

⁴ https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=20192020_0AB2762

⁵ https://www.cpsc.gov/Newsroom/News-Releases/2018/CPSC-Prohibits-Certain-Phthalates-in-Childrens-Toys-and-Child-Care-Products

⁶ https://www.plasticstoday.com/plastics-processing/kaiser-permanente-bans-pvc-tubing-and-bags



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been linked to decreased testosterone and sperm mobility in men⁷.

- DEHP exposure during pregnancy may lead to preterm birth, delayed mental development, and altered timing of puberty in the child⁷.
- DEHP exposure may have potential neurological effects on neural development and behavior⁸.
- DEHP impacts the thyroid and immune system⁸.

Research indicates that DEHP promotes drug resistance and inhibits the effectiveness of breast cancer drugs, interferes with the ability of chemotherapies to fight breast cancer, and that patients with higher levels of DEHP in their system had higher rates of relapse and mortality⁹.

SOLUTION

AB 2300 will prohibit the manufacturing, selling, or distributing of IV bags for all patients and IV tubing used for high-risk patients in California.

AB 2300 will prohibit manufacturers from replacing DEHP in IV bags and tubing with any of the 11 chemicals that make up the ortho-phthalate class.

SUPPORT

Breast Cancer Prevention Partners (Sponsor)
California Black Health Network (Co-Sponsor)

FOR MORE INFORMATION

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⁷ <https://www.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=377&toxid=65#:~:text=The%20U.S.%20Department%20of%20Health,is%20a%20probable%20human%20carcinogen.>

⁸ chrome-extension://efaidnbmnnnibpajpcglclefindmkaj/https://www.opc.ca.gov/web

[master/ftp/project_pages/MarineDebris_OEHHA_ToxProfiles/DEHP%20Final.pdf](https://www.sciencedirect.com/science/article/pii/S0753332221011860)

⁹ <https://www.sciencedirect.com/science/article/pii/S0753332221011860>