

Protect Children's Health

Ban Toxic Tris

What is chlorinated Tris?

TCEP and TDCPP (chlorinated Tris) are two commonly used flame retardants added to foam in furniture and baby products. Over time, TCEP and TDCPP are released from the foam and attach to household dust, easily ingested once it lands on food, clothing, and other surfaces.^{2,3} Young children are the most likely to ingest dust because they put their hands and toys in their mouths frequently. Researchers have found TDCPP in house dust, indoor air, waterways, and breast milk.⁴ TCEP has been widely detected in surface water, with the United States Geological Survey finding it in 58% of 139 streams sampled nationally.⁵ Tests of indoor air have found TCEP in homes, offices, libraries, hospitals, and computer classrooms.⁶

Products that can contain toxic Tris include:



How is Tris harmful?

- Exposure to TCEP increases cancer risk and is also linked to reproductive effects and neurotoxicity.^{7,8,9,10}
- The European Chemicals Agency refers to TCEP as a substance of “very high concern.”¹¹ It is also listed in California as a known carcinogen.¹²
- Animal studies have found that TCEP causes tumors in the kidney and liver as well as damage to the learning center of the brain.^{13,11}
- TDCPP was designated as a carcinogen by California in 2011;¹² the Consumer Product Safety Commission (CPSC) designated the chemical as a probable carcinogen and estimated the number of excess cancers due to exposure at 300 cancers per million adults.¹⁴
- Animal studies suggest that TDCPP is a neurotoxin, and in vitro studies have shown that TDCPP is toxic to developing brain cells.¹⁵

What are the alternatives?

Products with foam can use less toxic flame retardants or different construction methods. Barrier methods contain the foam inside a polymer material, and are already commonly used in mattresses.¹⁶ Various baby product lines are tris-free, including Polyester-filled and cotton-covered products such as BabyLuxe Organic, Baby Bjorn and Boppy.

What can government and industry do?

Maryland policymakers should ban TCEP and TDCPP. Manufacturers can use naturally fire-retardant materials, non-chemical flame retardancy measures such as barriers, or use least-toxic chemicals. Government agencies should allow only the least toxic chemicals to be used, and adopt sensible flammability standards. New York State has banned TCEP in products for children, and legislation to ban TCEP and TDCPP has been introduced in a number of states.

Maryland PIRG
Standing Up
To Powerful Interests

Maryland PIRG is a statewide, citizen-based consumer advocacy group. Visit www.marylandpirg.org or call 410-467-9389 for more information.

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