



# CHEMICALS IN CRIB MATTRESSES



## WHAT CHEMICALS CAN BE FOUND IN CRIB MATTRESSES?

Infants and young children can be exposed to high levels of chemical emissions from crib mattresses while they sleep. These chemicals include polyvinyl chloride (PVC), phthalates, flame retardants, including brominated/chlorinated/phosphates/polyacrylonitrile-modacrylic/boric acid, pesticides, and volatile organic compounds (VOCs). PVC is often used in covers to make mattresses more waterproof and bacteria resistant. Bromine is added to mattresses to make them more fire retardant. Traces of pesticides are found in many mattresses, especially those that make use of inorganic cotton.



## WHY ARE BABIES AND YOUNG CHILDREN SO SUSCEPTIBLE TO MATTRESS CHEMICALS?

- Babies/Children eat more, drink more and breathe more pound for pound than adults do so there are more opportunities for them to ingest and inhale toxic materials that may be released from mattresses.
- A child's immune and excretory systems are not as effective at removing chemicals from the body as an adults.
- Children spend over 50% of their day sleeping, making them more susceptible to harmful chemicals found in mattresses.

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## ARE FLAME RETARDANTS USED IN CRIB MATTRESSES?

Most crib mattresses made of polyurethane foam will contain flame retardants. Manufacturers surround the foam with chemical flame retardants. Many makers of crib mattresses also add flame retardants into the surface fabrics or "ticking." Flame retardants have been linked to many health concerns, such as lower IQ, hyperactivity, fertility issues and cancer. Along with health concerns, research shows that these chemicals might not actually even afford us increased significant fire protection.

### What are Volatile Organic Compounds (VOCs)?

VOCs are compounds that easily become vapors or gases. They can be released into the environment from a variety of household products, such as craft supplies, air fresheners, cleaners and furniture. VOCs like toluene can be found in mattresses (in the polyurethane foam) and mattress covers and are a major health concern. VOCs are most often inhaled or enter the body through contact with skin. Young children are especially vulnerable to negative health effects resulting from exposure to VOCs because of their developing bodies, so their presence in crib mattresses is a significant concern.



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## HOW CAN I CHOOSE A SAFER MATTRESS?

- Choose a GOTS certified organic mattress. GOTS (Global Organic Textile Standard) is the highest standard for non-toxic mattresses. [www.global-standard.org](http://www.global-standard.org).
- You can choose mattresses and mattress covers made of safer materials, such as organic cotton or organic wool.
- Organic cotton is a safer alternative to polyurethane foam in the mattress itself. Organic cotton is also used to make mattress covers.
- Organic wool is another safe material. It can act as a natural flame retardant, which makes the use of chemicals unnecessary. Organic wool does not release toxicants, so it is safer for infants and children.
- For more information on safer bedding options check out the Made Safe Bedding Report: <https://madesafe.org/science/whats-in-products/bedding/> AND the Zero Toxics Product Registry – this is a new compilation of non-toxic products ([www.zerotoxics.com](http://www.zerotoxics.com))



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