Chemicals and contaminants linked to cancer can be found in many everyday products. However, no category of consumer products is subject to less government oversight than cosmetics and other personal care products. Although many of the chemicals and contaminants in cosmetics likely pose little risk, exposure to some chemicals and contaminants used in cosmetics and other personal care products has been linked to serious health problems, including cancer. Under the California Safe Cosmetics Act of 2005, 595 cosmetics manufacturers have reported using 88 chemicals that have been linked to cancer, birth defects, or reproductive harm in more than 73,000 products since 2009. Nevertheless, the Food and Drug Administration has banned or restricted only nine chemicals for safety reasons. Here are 20 chemicals or contaminants—the Toxic Twenty—that should finally be banned from our personal care products.

<table>
<thead>
<tr>
<th>Ingredient/Contaminant</th>
<th>Health Concerns</th>
<th>Countries or Intergovernmental Organizations with Bans or Restrictions</th>
<th>Retailers With Bans or Restrictions</th>
<th>Function in Personal Care Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Formaldehyde is carcinogenic; it also causes allergic reactions and irritates the eyes and respiratory system.</td>
<td><strong>Banned:</strong> Japan—ban on formalin (aqueous formaldehyde)</td>
<td><strong>Scheduled ban for store brand products:</strong> CVS, Rite Aid, Target, Walgreens</td>
<td>Formaldehyde is used as a hair straightener, nail hardener and preservative.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Restricted:</strong> EU, ASEAN, Canada, Australia</td>
<td><strong>Currently banned from any body care product:</strong> Whole Foods</td>
<td></td>
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<tr>
<td>Formaldehyde releasers</td>
<td>Formaldehyde releasers can have health effects similar to those of formaldehyde.</td>
<td><strong>Certain formaldehyde releasers are restricted by:</strong> EU, ASEAN, Canada</td>
<td><strong>Scheduled ban for certain formaldehyde releasers in store brand products:</strong> CVS, Rite Aid, Target, Walgreens</td>
<td>Formaldehyde releasers are chemicals that release formaldehyde over time. They are used as preservatives.</td>
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<td><strong>Certain formaldehyde releasers are currently banned from any body care product:</strong> Whole Foods</td>
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</table>
| Dibutyl phthalate       | Dibutyl phthalate is an endocrine disruptor and a developmental toxicant that harms male reproductive system development. It can cause early puberty in boys and other changes in the reproductive system. | **Banned:**  
- EU  
- ASEAN  
- Australia | **Scheduled ban for store brand products:**  
- CVS  
- Rite Aid  
- Target  
- Walgreens | Dibutyl phthalate is used as a solvent and fixative in perfumes, and as a plasticizer in nail polish. |
| Diethylhexyl phthalate  | Diethylhexyl phthalate harms the reproductive system and can affect the developing fetus. It is a potential endocrine disruptor and has been classified by the International Agency for Research on Cancer as possibly carcinogenic to humans. | **Banned:**  
- EU  
- ASEAN  
- Canada  
- Australia | **Scheduled ban for store brand products:**  
- CVS  
- Rite Aid*  
- Target  
- Walgreens | Diethylhexyl phthalate is used in eyelash adhesive and in fragrances. |
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| Mercury and related compounds, including thimerosal | Mercury is a heavy metal that is absorbed through the skin. Mercury can *damage the kidney* and *impact the nervous system*. It is especially harmful to the developing fetus. | *Banned:*  
• EU  
• ASEAN  
• Canada  
• Japan |  
**Thimerosal preservative allowed in eye products (up to max. concentration of 70 parts per million, or ppm):**  
• EU  
• ASEAN | *Mercury is presumed to be limited* per FDA.  
*Mercury is used as a skin lightener. Some preservatives, like thimerosal, contain mercury and are still allowed.* |
| Isobutylparaben | Isobutylparaben is an *endocrine disruptor* that can harm male reproductive system development. | *Banned:*  
• EU  
• ASEAN |  
**Restricted:**  
• Japan | *Scheduled ban for store brand products:*  
• CVS  
• Rite Aid*  
• Target  
• Walgreens  
*Currently banned from any Premium body care product:*  
• Whole Foods | *Isobutylparaben is a preservative.*
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| Isopropylparaben       | Isopropylparaben is an **endocrine disruptor** that can mimic estrogen. | **Banned:**  
- EU  
- ASEAN  
**Restricted:**  
- Japan | **Scheduled ban for store brand products:**  
- CVS  
- Rite Aid*  
- Target  
- Walgreens | Isopropylparaben is a preservative. |
| Butylparaben           | Butylparaben is an **endocrine disruptor** that can harm male reproductive system development. | **Restricted:**  
- EU  
- ASEAN  
- Japan | **Scheduled ban for store brand products:**  
- CVS  
- Rite Aid  
- Target | Butylparaben is a preservative. |
| Propylparaben          | Propylparaben is an **endocrine disruptor** that can mimic estrogen. | **Restricted:**  
- EU  
- ASEAN  
- Japan | **Scheduled ban for store brand products:**  
- CVS  
- Rite Aid  
- Target | Propylparaben is a preservative. |

* Currently banned from any Premium body care product:  
- Whole Foods
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<td>Toluene</td>
<td>Toluene is toxic to the brain and the nervous system; it also harms the developing fetus.</td>
<td>Restricted: • EU • ASEAN</td>
<td>Scheduled ban for store brand products: • CVS • Rite Aid • Walgreens</td>
<td>Toluene is a solvent used in nail polish, nail treatments and hair dye.</td>
</tr>
<tr>
<td>Triclosan</td>
<td>Triclosan affects the thyroid and reproductive hormones.</td>
<td>Restricted: • EU • ASEAN • Canada • Japan • Australia</td>
<td>Scheduled ban for store brand products: • CVS • Rite Aid • Walgreens</td>
<td>Currently banned from any body care product: • Whole Foods</td>
</tr>
<tr>
<td>Carbon black</td>
<td>Carbon black has been classified by the International Agency for Research on Cancer as possibly carcinogenic to humans.</td>
<td>Restricted: • EU • ASEAN</td>
<td>Set limits on impurities: • U.S. FDA</td>
<td>No retail restrictions.</td>
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<td>PFAS (per- and polyfluoroalkyl substances)</td>
<td>PFAS chemicals harm the developing fetus, increase the risk of cancer, affect the immune system and disrupt hormones.</td>
<td>The EU has scheduled the restriction of the manufacture and sale of one PFAS, perfluorooctanoic acid (PFOA), under the REACH law, by 2020</td>
<td>No retail restrictions.</td>
<td>PFAS is a class of more than 4,000 chemicals. They have been found in sunscreen, foundation, concealer, eyeliner, shaving cream and hairspray.</td>
</tr>
<tr>
<td>Asbestos</td>
<td>Asbestos is a carcinogen and can cause lung diseases if inhaled.</td>
<td>A type of asbestos (blue asbestos, or crocidolite) is banned in personal care products: • EU • ASEAN</td>
<td>No retail restrictions.</td>
<td>No retail restrictions.</td>
</tr>
<tr>
<td>Lead and related compounds</td>
<td>Lead can affect the brain development of children and cause permanent nervous system damage. Lead also harms other organ systems, especially the cardiovascular system and the heart.</td>
<td>Banned: • EU • ASEAN • Canada Recommended max. level of contamination in lip products and externally applied cosmetics (10 ppm): • U.S. FDA</td>
<td>No retail restrictions.</td>
<td>Lead is a heavy metal that occurs as a contaminant in lipstick, eye shadow, blush, powders, shampoos and lotions.</td>
</tr>
</tbody>
</table>

* These chemicals are on Rite Aid’s Expanded Restricted Substances List. The company screens products against this list and encourages suppliers to eliminate these chemicals.