Material Selection

What's the most important part of creating a toy? Making sure it’s safe. Mattel designs and engineers thousands of toys and other children’s products and each model is evaluated to make sure it meets stringent safety standards. Our internal product safety procedures are designed to meet or exceed regulations and laws enforced by the U.S. Consumer Product Safety Commission (CPSC) and their regulatory counterparts around the world. We operate 10 high-tech labs where our products are tested for safety, quality, and durability. Our labs — which are CPSC approved and ISO 17025 accredited — are equipped to drop, age, burn, twist, push and pull our products to test all aspects of safety before they arrive in your home and end up in the hands of children.

Mattel has 12 internal laboratories around the world, accredited by ILAC signatories (ISO/IEC 17025, ISO 9000, ISO14000, ISO 18000), firewalled and approved by the U.S. Consumer Product Safety Commission, qualifying as third party. Managing our own laboratories allows for faster turn-around times and testing at every stage of production.

We have the capacity to test 12,000 finished products per year, including mechanical, electrical and chemical. Our tests are based on international standards and Mattel's internal protocols, which meet or exceed external standards.

We take great care when selecting the materials in our products because we want to understand how they impact a child and the integrity of the product. We have a rigorous process to evaluate our suppliers’ procedures and practices.

Mattel's Product Safety and Quality team conducts a comprehensive chemical safety assessment for all new material by collecting detailed information of their composition. These bills of substances (i.e. material ingredients) are stored in an in-house database and compared to an internal restricted substances list that reflects worldwide chemical regulations. The list contains more than 3,000 chemicals that are restricted from usage.

BPA

In toys, Bisphenol A, also known as BPA, is most often found in a material called polycarbonate, which is a very strong and clear plastic. Polycarbonate is used in many products to prevent them from shattering or breaking. For example, bicycle helmets and safety goggles are often made from polycarbonates to protect the user. While there are many beneficial uses of polycarbonate, there is a concern that BPA may negatively impact health. We set a standard that polycarbonate cannot be used in any product that is intended to be mouthed or touch food. For products with polycarbonate, we continue to pursue viable alternatives.
PVC

As one of the most highly-tested plastics in the world, PVC meets international standards for safety and health. Our evaluations to date of alternative plastics have not identified a material that’s able to meet all of Mattel’s quality, safety, and supply chain requirements. Historically, there has been concern about the use of lead and phthalates (see phthalates section) in PVC. At Mattel, we do not allow our suppliers to add lead to the PVC they are providing for our products - thus, we have strict limits and we regularly test for compliance. Another challenge with PVC is that it is recycled in very low quantities. For this reason, we are eliminating the use of PVC in packaging so more of our packaging can be recycled.

Flame retardants

Mattel does not add chemicals to its products as flame retardants except in certain limited circumstances. For example, some electronic components and some products destined for specific markets (outside of North America) have flame retardants added in order to meet regulatory requirements. Mattel has designated certain flame retardants that may not be present in any of its products:

- Tris (2,3-dibromopropyl) phosphate
- Tris (aziridinyl) phosphinoxide
- Tri-o-cresyl phosphate
- Tris (2-chloroethyl) phosphate (TCEP)
- Tris(2-chloro-1-methylethyl) phosphate (TCPP)
- Tris (1,3-Dichloro-2-propyl) phosphate (TDCPP)
- Polybrominated-biphenyls (PBBs)
- Polybrominated-biphenyl ethers (PBDEs)
- Polychlorinated terphenyls (PCTs)
- 2-ethylhexyl-2,3,4,5
- Bis(2-ethylhexyl) tetrabromophthalate
- Hexabromocyclododecane
- Octabromodiphenyl ether
- Pentabromodiphenyl ether
- Antimony trioxide
- Short-chain chlorinated paraffins (SCCPs)
- 2-ethylhexyl-2,3,4,5 tetrabromobenzoate (TBB)
- Bis(2-ethylhexyl) tetrabromophthalate (TBPH)
- Bis(chloromethyl) propane-1,3-diyltetrakis (2-chloroethyl) bisphosphate or Phosphoric acid,P,P’[2,2-bis(chloromethyl)- 1,3-propanediyl]P,P’,P’-tetrakis(2-chloroethyl) ester (V6)
- Isopropylated triphenyl phosphate (IPTPP)
- Decabrom-odiphenylethane (DBDPE)
- Triphenyl phosphate (TPP)
- Tris(2-ethylhexyl) phosphate (TEHP)
• Tetrabromobisphenol A (TBBPA)

Substances of Very High Concern (SVHC)

While the REACH regulation in Europe allows manufacturers to use substances of very high concern, Mattel goes further than the regulation requires. Mattel monitors the list of SVHCs and reviews all material ingredients to ensure that no articles in our products contain more than 0.1% of any SVHC.

Polycyclic Aromatic Hydrocarbons (PAH)

Polycyclic-aromatic hydrocarbons (PAH) are a group of organic compounds that can be found in some rubber materials, plastics, and coatings. Certain PAHs have been identified as hazardous to human health and are therefore banned by REACH (Annex XVII). Mattel periodically samples its materials and tests for the presence of PAHs to ensure compliance with the REACH requirements.

Reporting Laws in U.S. States

Various states in the United States (Washington, Vermont, etc.) require children’s product companies to report the use of chemicals that are contained on chemical lists maintained by the state. Mattel complies with these reporting laws by filing reports when necessary but has taken the additional step of aggressively phasing out the chemicals that must be reported from its products.

Phthalates

Phthalates help make plastics more flexible as well as improve their durability. There are different types of phthalates and some of them have been identified as posing a health hazard. Governments have banned the use of certain phthalates. We follow all phthalate legislation and require that all of our owned or operated manufacturing plants as well as our third-party finished toy manufacturing companies use a phthalate alternative when molding plastic parts for our products. We do not use the following phthalates in any accessible part of our products:

- Di (2-Ethylhexyl) Phthalate (DEHP)
- Benzyl butyl Phthalate (BBP)
- Dibutyl Phthalate (DBP)
- di-"isodecyl" phthalate (DIDP)
- di-n-hexyl phthalate (DnHP)
- di-"isononyl" phthalate (DINP)
- di-n-hexyl phthalate (DnHP)
- Diisobutyl phthalate (DiBP)
- Di-n-pentyl phthalate (DPP/DPENP)
- Dicyclohexyl phthalates (DCHP)
- Dimethyl phthalate (DMP)
• Diethyl phthalate (DEP)
• Bis(2-methoxyethyl) phthalate
• Diisopentylphthalate (DIPP)
• N-pentyl-isopentylphthalate
• Dipentyl phthalate (DPP)
• 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)

Latex

Select Fisher-Price products contain latex: baby bottle nipples, pacifiers and teethers. We clearly label packages for those products in case latex allergies are an issue for consumers or their babies. Enclosed latex, such as that found in elastic cords and straps, has not been shown to cause allergic reactions. Therefore, we don’t identify the presence of latex on packaging for products that have enclosed latex parts.

Lead

We use world-class equipment to test for lead. Mattel is fully compliant with all applicable standards related to safe levels of lead in products for children.

Why do we differentiate between accessible and inaccessible parts in our toys?

People have asked why we treat accessible parts in our toys differently from inaccessible ones. An accessible part is any part of a toy a child can touch when a product is assembled. Since protecting a child is of the utmost importance to us, we want to hold all parts of the toy with which a child plays to a higher standard. Therefore, we place stricter requirements on accessible parts. To evaluate whether an inaccessible part may become accessible, we put our toys through a series of durability and reliability tests to make sure the parts in question will stay inaccessible.