

5.8 Going beyond

Continuous reduction of CoCs in toys

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Trends on safe and sustainable products

The sound management of chemicals is an explicit goal and necessary enabler of global sustainable development (UNEP 2015). Across the globe, governments develop legislation that aims to ensure that the harmful impacts of chemicals on humans and the environment are minimised. At the same time, efforts are being increased to ensure equal access around the globe to the benefits from the use of chemicals, and to develop innovative applications of (safe) chemicals, for example in the health care sector. As the sound management of chemicals (and wastes) grows in importance, legal requirements for chemicals in products will be developed.

Due to greater awareness among consumers about chemical risks, their demand for safer and more sustainable products is also increasing. Supply chains innovate and improve their products by replacing chemicals of concern with safer alternatives. 'Chemical safety' is becoming an important factor determining the market success of a product.

Through research and regulatory programmes (not yet known) hazards of chemicals are continuously assessed and identified. In addition, safer alternatives are developed to replace chemicals of concern in their various applications and materials.

Consequently, knowledge on hazardous properties of chemicals is growing, the chemical supply is continuously changing, and the regulatory landscape is extending use restrictions and other requirements to more chemicals.

These general trends can also be observed in the toys sector, where product safety has always been an important factor due to the close contact with toys (mouthing, touching) and the vulnerability of [children's health](#). While regulatory requirements remain one of the most important innovation drivers, many companies are starting to look ahead and develop more ambitious sustainability policies (ECHA 2020). This includes policies related to chemicals management [#Section 1 11 chemicals management](#).

Reasons to continuously reduce the use of CoCs in toys

The current trends in product development and improvement of the safety and sustainability of products (toy input materials, toy parts and/or toys) indicate that companies that reduce the use of CoCs in their products could benefit in various ways. Not least, they contribute to healthier children, thereby improving quality of life. In addition, they may:

- Better fulfil the demand for safer products, thereby securing their existing markets and potentially entering new ones
- Improve their overall brand image as a responsible company with related benefits in business relations
- Have less or even no pressure to respond to new legal requirements, as chemicals have been replaced pro actively before new legislation enters into force
- Good opportunities to apply for certifications or eco labels, which may increase the market potential of the own products
- Save costs as it may be that fewer protection measures are needed at workplaces or for the environment. Cost savings may also result from a reduced hazardousness of production wastes

Options to continually reduce the use of CoCs in practice

Companies may opt for one of two routes to increase their ambition on chemical management policies.

a) Continuous improvement of existing products and processes.

A company can decide to continually improve the chemical performance of its products and transition to a better and more ambitious chemicals management policy. The very basis of any chemicals management policy is compliance with legislation. Once compliance is achieved, companies may define their priorities regarding the phase-out or use reduction of chemicals of concern.

For example, a company's chemicals-related priorities may consider or be based on:

- existing sector standards;
- the strictest [legal requirements](#), regardless of whether they exist in the target market or in non-target countries;
- customer demands regarding the absence of CoCs;
- [hazardous chemical properties](#), e.g., to avoid carcinogens and/or skin sensitisers in toys.

The goals for phasing out or use reduction of chemicals of concern may [consider the exposure](#) that can be expected from a toy, either to define exceptions from phase out goals (negligible exposure) or to prioritise substances for [taking action](#).

When the policy goals for phase out and use have been reached, new goals can be defined to enter a new cycle of assessing the use of CoCs, which are now of a slightly lesser concern than before, and whether taking action is needed. The implementation of such a continuous development process to substitute chemicals of concern (in materials and products) is facilitated if the top management is involved and dedicated to the process, if strong management routines exist and the company has or develops a cooperative and innovative culture in general.

b) Step wise development of new products that are 'safe-by-design'

Companies may decide to change some or all their products in a more fundamental way and start a design process almost 'from scratch'. According to the 'safe-by-design' principles, only non-hazardous input materials are selected, i.e. early in the design phase of the product (Van der Waals 2019). This approach may be extended to further sustainability aspects, such as other environmental impacts of a product (e.g., greenhouse gas emissions or resource consumption) but also to the social and economic dimensions of sustainability, including avoiding child labour, ensuring the implementation of other social standards, and avoiding using resources below their capacity to regenerate.

This approach not only requires 'rethinking a product' but also requires customers who are prepared to accept input materials with a significantly changed composition and/or design. The toy sector may be very open to such changes, as the end-product does not have to fulfil high technical performance criteria.

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