

Position Paper

Proposal for an Early Analysis of Alternatives

The coatings and printing inks industry is an important contributor to the goals of the European Green Deal. However, regulatory changes proposed under the deal would result in an automatic ban of some substances used in coatings and printing inks without considering whether alternatives are available. We propose a different process, the early Analysis of Alternatives, that would consider first whether alternative products are in place, allowing for smoother substitution and preventing interruption to coatings and printing inks supply.

The Chemical Strategy for Sustainability will lead to a high number of reformulations for paint and ink manufacturers

With the Chemical Strategy for Sustainability (CSS), the European Commission proposes many initiatives, including those that seek to speed up the elimination of the most hazardous substances. For these substances, the proposed elimination speed is instant, as an automatic trigger is being proposed (the Generic Risk Management, which expands article 68 (2) of the REACH regulation). This will lead to a high number of derogation requests, as new hazard classes are being introduced.

The foreseen derogation procedure is the Essential Use Concept. This is a stepwise approach that first identifies whether a hazardous substance is essential to society (answering “no” results in a ban) and then whether replacements are available (and if so, requires substitution). The automatic ban and pressure to find replacements will lead to a high number of reformulations.

Current reformulation processes for paint and ink manufacturers

Drivers for the substitution of substances are product innovations, demand-specific formulation adjustments, voluntary commitments, and increasing regulatory requirements, as highlighted above. According to an economic impact analysis¹, the coatings and printing inks industry is likely to be one of the most affected sectors downstream of the chemical raw materials industry due to its high number of formulations.

Every coating and ink manufacturer typically uses an individual base of raw materials that comprises approximately 1,000-2,000 substances. Overall, the industry relies on about 4,000 substances. Raw materials can be single substances, but in most cases, they are mixtures of substances. Each coating or formulation usually consists of a mixture of 10-60 substances. In each formulation, all components are carefully tuned to one another, so that the substitution of a single substance often requires an adjustment of the entire formulation.

Exchanging substances is not a simple process (see flowchart below). On the contrary, it is a complex, resource-intensive and iterative process with no guarantee of success. By the time a new formulation is ready for the market, countless laboratory tests have been carried out. Even if a new coating or ink formulation can be developed, the successful implementation also depends on the availability of the substitute material along the supply chain as well as on the customer willingness to take it up.

Our products support the EU Green Deal, but are at risk

Coatings and inks are applied on a variety of substrates, such as concrete, paper, plaster, wood, plastic, stone and metal for a variety of functions supporting societal needs (e.g., for well-being, health and

¹ <https://cefic.org/app/uploads/2021/12/Economic-Analysis-of-the-Impacts-of-the-Chemicals-Strategy-for-Sustainability-Phase-1.pdf>

safety) and sustainability goals (e.g., increasing the service life of the treated objects, reducing waste). Reflective coatings also help reduce energy consumption for cooling.

The loss of one ingredient can make a product unviable or, at least, less effective. As the REACH revision reduces the number of available ingredients, a significant impact is expected on the coatings and inks industry, which already conducts reformulations and that provides essential components for meeting the objectives of the EU Green Deal.

An “early Analysis of Alternatives” (eAOA) will help to reduce the number of reformulations

As mentioned above, the EUC currently foresees first an assessment of criticality and secondly an assessment of alternatives. One way to reduce reformulations is to reverse the order and introduce a prioritisation. We call it the Early Analysis of Alternatives (eAOA).

The concept starts with a step to identify whether alternatives are available (and if not, how long it would take for one to be available), and to then apply the EUC, if relevant. This approach allows all the principles put forward to be included, but in a way which allows substitutes of equivalent “quality” and increases predictability. It is also easier for SMEs to implement.

The steps in the eAOA are demonstrated in the flowchart below. The substances subject to the concept would be those expected to be future SVHCs under the new hazard classes. By subsequently conducting a prioritisation, the concept should focus on substances where a high exposure can be expected. In additional steps, the screening would clarify whether reactive substances are present above the threshold of 0.1%, if there are known alternatives (including their SVHC potential) and if safe use can be guaranteed while alternatives are being researched.

The concept of eAOA must be designed in a robust manner, with respect to confidentiality, involving the entire supply chain, with scrutiny by an independent body and properly staffed with relevant expertise.

Added value of the eAOA proposal

The approach would remove from the EU market the substances for which suitable alternatives are available and would allow time for innovation where substitutes are not yet available but safe use is demonstrated. The search for alternatives is use-specific. Hence, when a substance requires substitution, every one of its uses must be analysed separately with relevant expertise (for instance the expertise in paint formulation is different from the one in detergents).

- The eAOA represents a transition pathway
 - It helps preventing shocks in substance availability and subsequent product availability on the EU market.
 - It provides a more reasonable timeframe for innovation and prevents too high a number of reformulations for coatings and inks manufacturers.
 - It provides a clear signal for industry to innovate, and provides higher security for investments in innovation.
 - It reduces the number of derogations requests, and reduces the number of subjective decisions on whether substances are essential.
 - It will increase communication and engagement along the supply chain.
 - Prioritization will ensure a focus on what matters most.

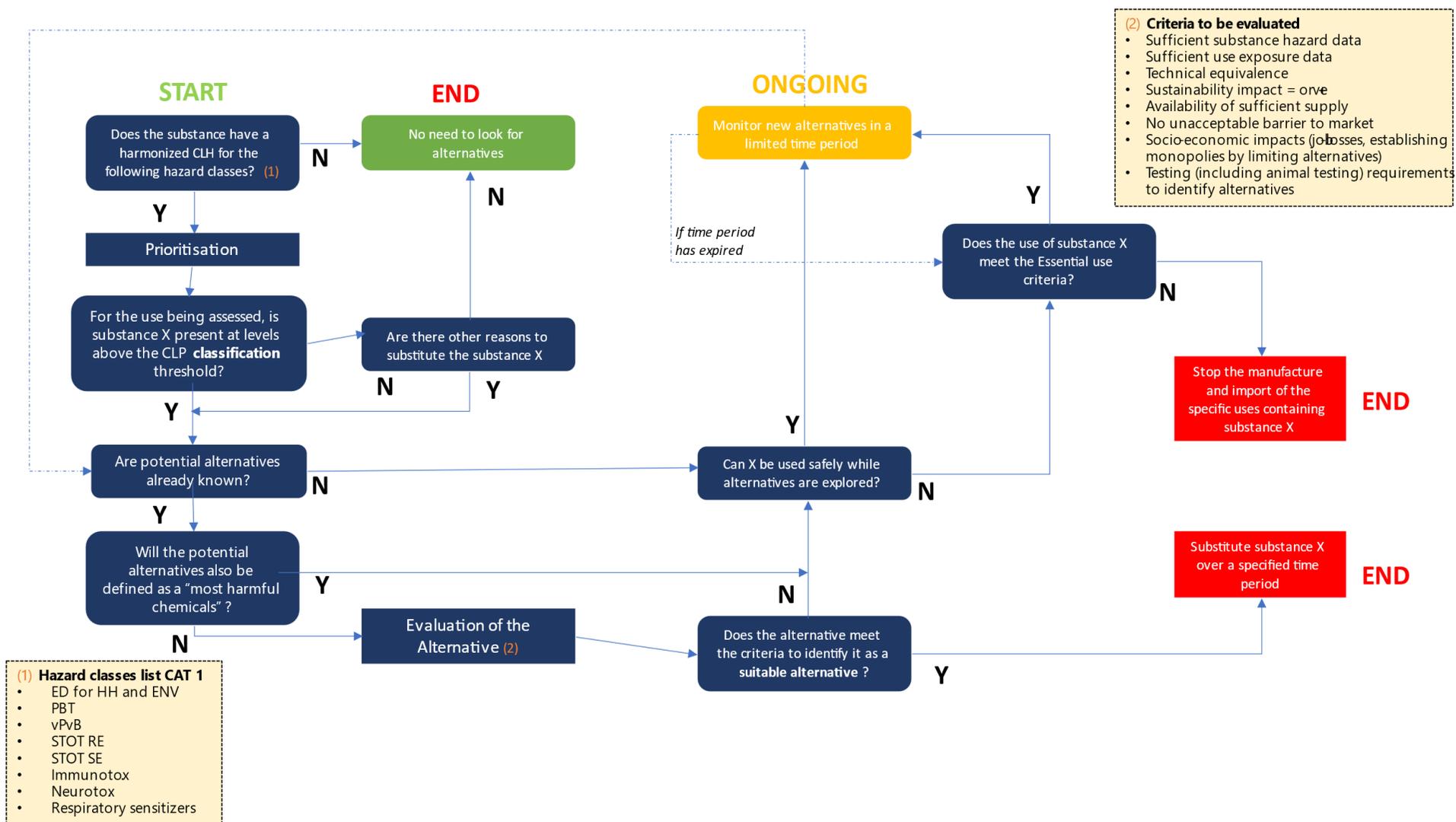
For more information, please contact:

Christel Davidson, Managing Director, CEPE, +32 2 897 20 20, c.davidson@cepe.org

About

The European Council of the Paint, Printing Ink, and Artist's Colours Industry (CEPE) represents about 800 member companies across Europe which stand for 85% of the market value with an estimated annual turnover of €17 billion. The 100,000 direct employees predominantly work in small and medium size companies (SME).

Proposed flowchart of the early Analysis of Alternatives





SUBSTITUTION OF SUBSTANCES IN COATINGS AND INKS RECIPES

A LENGTHY AND COSTLY PROCESS

