

FACT SHEET

The hazards of chemical screening: Finding a clearer path to assess chemicals and materials in products for a sustainable built environment

Sustainability rating tools are important for the building industry to encourage the built environment to be developed to the highest possible environmental, health and social performance standards. The industry wide uptake of these tools – such as Green Star rating tools from the Green Building Council of Australia (GBCA) – has led to product innovation and higher standards of best practice in manufacturing by those wishing to provide construction materials to contribute to green buildings.

We understand the need for rating tools and ecolabels to screen the use of hazardous chemicals in products and materials. There is growing difficulty, however, for both manufacturers and projects in trying to meet the myriad of requirements now found in these tools, procurement requirements, product standards, building codes and regulations. Each tool or approach has different concerns and standards about which products are assessed and allowed. With the plethora of sustainable rating and procurement tools and ecolabels that exist today, it is increasingly important that there is convergence in screening

approaches for hazardous chemicals. But it is a highly complex area!

Earlier this year, the European Union released a paper exploring this issue and the need for a 'horizontal' approach to the assessment of chemicals and materials across all ecolabels¹. The EU Ecolabel Chemicals Horizontal Task Force's research reaffirms the need for screening criteria that is holistic, objective, consistently and horizontally applied, and science-evidence based.

A 'horizontal' approach avoids the limitations and biases caused in some tools by selective, subjective lists of chemicals to be avoided – "Red Lists" – or approaches merely focusing on hazard classification of substances without any understanding of risk of exposure or impact, or product net benefit.

The Task Force's research proposes that a horizontal performance-based approach to screen chemicals needs to:

- Be based on whole of product life and addressing the point in the product life cycle where a
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chemical hazard classification poses the most significant risk to environment, consumers and/or workers;

- Reflect the best performing products currently available; and
- Require scientific evaluations of substitute materials/products to demonstrate a reduction in inherent hazards.

Driving Change

The approach to reviewing PVC and other materials taken by the GBCA between 2007 and 2010 is markedly similar to that recommended in the Task Force's 'horizontal' approach. The EU paper recommends using expert technical literature, LCA and industry advice to assess impact and risk of exposure to chemicals and that evidence of the potential to control exposures be taken into account.

It notes a distinction between chemicals contained in the final product and chemicals used in manufacturing. The Task Force proposes that the strictest sectoral Occupational Exposure Limits and Best Available Technologies be identified and required where a product uses hazardous substances in manufacture.

This is, in essence, how the GBCA approached the issue of PVC in

conducting its review and developing the criteria for the Best Practice guidelines for manufacturing PVC. The GBCA established an Expert Reference Group, engaged with industry and reviewed regulatory and technical literature in its assessment.

Best practice guidelines for manufacturing PVC were then developed by the GBCA in recognition that historical issues with PVC were no longer relevant to all PVC products and alternatives to PVC were not always better. The guidelines encourage all PVC manufacturers to improve the life cycle of their products from the sourcing of upstream raw material inputs, to the additives used and end of life product stewardship. PVC product suppliers have to undergo independent third party auditing to demonstrate full compliance of their manufacturing process and supply chains with the best practice guidelines.

The Task Force's paper attests to the robustness of the GBCA's approach to PVC. The Best Environmental Practice approach to PVC is driving significant change in PVC products in Australia and ensures that lifecycle impacts are minimised.

No material is inherently 'sustainable'. For any material, it is how it is managed over its entire life cycle that determines its

sustainability. This means not just manufacturing, but patterns of use, maintenance and end-of-life.

Best Environmental Practice PVC assessment is in line with the horizontal approach proposed by the European Commission and these PVC products can make a significant contribution to sustainability in the built environment.

The Vinyl Council invites all ecolabels, procurement policy-makers and rating tools to consider Best Environmental Practice PVC as

the best way to assess and screen PVC products.

The Vinyl Council of Australia is working to advance the sustainability of the vinyl (or PVC) industry in Australia. Its members are drawn across the supply chain of the vinyl industry.

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¹ Findings of the EU Ecolabel Chemicals Horizontal Task Force: Proposed approach to hazardous substance criteria development, 24th February 2014, European Commission Joint Research Centre, Institute for Prospective Technological Studies (Seville) Sustainable Production & Consumption Unit