

HEALTHY PRODUCTS, PEOPLE, PLANET - REDUCING EXPOSURE TO VOCs

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Healthy products are good for you and good for the planet. Healthy Products have a key role to play in the design and delivery of healthy buildings, boosting productivity and general wellbeing for occupants. They should also offer functional benefits, such as reducing overheating and ensuring moisture control, reducing the risk of condensation and subsequent mould growth.

This paper provides an overview of the common sources of VOCs from building products and their health effects, with an update on the latest monitoring, research, and tools that can reduce risk and assist with effective source control. The key takeaway is that monitoring of indoor air quality is simple, cheap and effective, but the chemistry behind effective source control is highly complex; however, there are a number of tools that can assist.

The paper will discuss formaldehyde; common sources, healthy limits and provide a case study of a school that was monitored in 2016, with formaldehyde levels 10 x WHO recommended levels, some 12 months after occupation. Guidance on levels of VOCs and iaq is included in Part F of the UK Building Regulations, but little monitoring is undertaken. This is hopefully set to change, with the upsurge in interest in the Well Building Standard, which requires monitoring at completion, and also after occupation.

It is very difficult to associate particular VOCs or products, directly with particular health complaints, but this paper will provide a summary of information from Allergy UK. They receive 800 calls a month to their help desk. It will provide a breakdown of complaints, sources and any seasonal trends. The paper will then detail the emergence of tools, such as Baubook, a database with 3,500 products, with detail of embodied carbon and VOC data, enabling the user to set criteria for healthy products and download procurement specification clauses.