Microbial Volatile Organic Compounds (MVOCs)

Microbial Volatile Organic Compounds (MVOCs) are organic chemicals produced by microorganisms, such as bacteria and fungi, during their metabolic processes. These compounds are released into the air and can contribute to indoor air quality issues, particularly in buildings that are damp or have poor ventilation.

MVOCs are a subset of volatile organic compounds (VOCs) that specifically originate from microbial activity. They can include a variety of chemical substances, such as alcohols, aldehydes, and ketones. The presence of MVOCs is often associated with mould growth, which can occur in environments with excess moisture, such as basements, bathrooms, and kitchens.

In a retrofit project aimed at improving the energy efficiency of an older home, it is crucial to address any existing dampness that could lead to mould growth. If a homeowner undertakes insulation work without resolving underlying moisture issues, MVOCs may be released as mould proliferates. This not only affects indoor air quality but can also lead to health issues for occupants, such as respiratory problems and allergic reactions.

In the UK, where many homes are subject to damp conditions due to the climate, understanding and managing MVOCs is essential for both new builds and retrofitting projects. Regulations such as the Building Regulations 2010 (as amended) and guidance from organisations like the Health and Safety Executive (HSE) highlight the importance of maintaining good indoor air quality, which includes managing the risks associated with MVOCs.