



T E C H N I C A L   A R T I C L E



**An Introduction to Gas Filtration**

# Technical article

## An Introduction to Gas Filtration

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Molecular Products Ltd employs a wide variety of technologies across its range of products which ensures a suitable product is available for most Gas Filtration applications.

These technologies include precious metal catalysis (Sofnocat®), and transition metal catalysis (Moleculite®) for oxidation of contaminants such as volatile organic compounds, carbon monoxide, ethylene oxide, ozone and hydrogen. Catalytic technologies can theoretically be used indefinitely as the contaminants are not retained, but in practice all catalysts become deactivated (poisoned) over time due to particulates and other low level contaminants within the treated gas stream. The life of the catalyst is therefore dependent on the constituents of the treated gas.

Absorption technologies, such as soda lime (Sofnolime®), Activated carbons (Chemsorb®), Molecular Sieve (Sofnosiv™) and calcium chloride, retain the contaminants which they are designed to remove, and therefore the life of these technologies is much more predictable, particularly if the levels of contaminant and gas flow rates are known. Each material will have a specific capacity for certain contaminants and once this capacity is reached, the material needs to be replaced.

Other technologies employed offer a combination of both absorption and catalytic technologies (Ethysorb®, Sofnofil™) which enable complex mixtures of contaminants to be treated and are particularly useful in odour control.



Sofnolime®



Sofnosiv™

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