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## Direct desorption/Thermal extraction

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### Overview

Direct desorption is a variation on the principle of dynamic headspace that can be used to rapidly screen small quantities of solid or semi-solid materials. Small samples are placed directly into empty TD tubes or via tube liners. These are then heated in a stream of inert gas to sweep volatiles directly from the sample matrix onto the focusing trap of the thermal desorption instrument, for subsequent analysis by GC.

Direct desorption is typically applied to homogeneous waxes, powders or pastes. Analytes monitored are generally in the range C<sub>3</sub> to C<sub>30</sub>. Applications of direct desorption include the odour profiling and quality control of a range of materials:

- Residual volatiles in ointments, packaging films, pharmaceuticals/drug powders and polymer beads.
- Emissions from consumer goods, such as paints, car trim components, moulded PVC and adhesives.
- Characteristic vapour profiles from foodstuffs and fragrant products, including soap powder and shampoo.

### Related products

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### [Empty sorbent tubes](#)

Empty sorbent tubes

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PTFE liners for direct desorption

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