



ISO 8573-5

**Compressed air — Contaminant
measurement —**

Part 5:
Oil vapour content

*Air comprimé — Mesurage des polluants —
Partie 5: Teneur en vapeurs d'huile*

**Second edition
2025-07**



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This document was prepared by Technical Committee Technical Committee ISO/TC 118, *Compressors and pneumatic tools*, machines and equipment, Subcommittee SC4, *Compressed air treatment technology*.

This second edition cancels and replaces the first edition (ISO 8573-5:2001), which has been technically revised.

The main changes are as follows:

- a thermal desorption technique has been introduced to prevent the use of environmentally hazardous solvents;
- a re-useable standardized adsorption agent has been introduced.

A list of all parts of the ISO 8573 series can be found on the ISO website.

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Oil vapour is a common contaminant in compressed air and this document details the correct sampling methodology and assists the user in selecting equipment and instrumentation and the determination of the oil vapour concentration in compressed air.

Oil vapour is the sum of all gaseous hydrocarbons or organic compounds starting from n-hexane, consisting of the subgroups:

- VOC's: Volatile Organic Compounds C_6 (n-hexane C_6H_{14}) to C_{16} (n-hexadecane $C_{16}H_{34}$)
- SVOC's: Semi Volatile Organic Compounds C_{16} (> n-hexadecane $C_{16}H_{34}$) to C_{22} (n-docosane $C_{22}H_{46}$)

In addition, it is intended to be used to assess compressed air purity such that the purity class can be stated in accordance with ISO 8573-1 for a total oil content of class 0, 1, 2, 3, 4, and X, and can be used only by agreement between consenting parties when measurements to purity class 0 are to be performed.

As stated in ISO 8573-1:2010, 5.4: "*Measurements for liquid oil and aerosols of oil shall be made in accordance with ISO 8573-2. It is considered that, for classes 3, 4 and X, the oil vapour content is not expected to significantly affect the total concentration; therefore, the measurement of vapour is optional. Where it is deemed necessary to measure the oil vapour, then ISO 8573-5 shall be used.*"