
**Compressed air — Contaminant
measurement —**

**Part 2:
Oil aerosol content**

Air comprimé — Mesurage de contaminants —

Partie 2: Teneur en aérosols d'huile

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standard, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see the following URL: www.iso.org/iso/foreword.html

This document was prepared by Technical Committee ISO/TC 118, *Compressors and pneumatic tools, machines and equipment*, Subcommittee SC 4, *Air treatment technology*.

This third edition cancels and replaces the second edition (ISO 8573-2:2007), which has been technically revised.

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

Introduction

This document requires the use of solvents to extract the oil captured on the sampling disc used in the sampling process. As a result of world-wide agreements such as the Montreal Protocol on the reduction of ozone depleting substances, a number of solvents used, for example 1,1,2 trichlorotrifluoroethane (TCTFE) have become subject to application restrictions. The revision of this document in 2007 did not identify a solvent but indicated the required characteristics.

This revision introduces the use of equipment that does not require the use of specific solvents and also an alternative solvent with reduced properties for the current method.

This revision will also include guidance to methods which provide an indication of oil aerosol content in compressed air.

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Compressed air — Contaminant measurement —

Part 2: Oil aerosol content

1 Scope

This document specifies test methods for the sampling and quantitative analysis of liquid oil and oil aerosols that can typically be present in compressed air. Test methods for oil vapour are excluded from this document as they are covered by ISO 8573-5.

Two different methods are described, Method A and Method B. Method B is subdivided into two parts to clearly distinguish between procedures for obtaining the quantity of oil for analysis.

Method A describes an oil collection technique using inline coalescing filters whereas Method B utilizes sampling discs in a holder from which the collected oil is extracted with a solvent and analysed by infrared spectrometry or gas chromatography with flame ionization detection.

This document also includes descriptions of alternative oil aerosol detection by the use of indicator type devices, see [Annex E](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3857-4, *Compressors, pneumatic tools and machines — Vocabulary — Part 4: Air treatment*

ISO 8573-1, *Compressed air — Part 1: Contaminants and purity classes*

ISO 8573-5, *Compressed air — Part 5: Test methods for oil vapour and organic solvent content*

ISO 12500-1, *Filters for compressed air — Test methods — Part 1: Oil aerosols*

DIN 32645, *Chemical analysis — Decision limit, detection limit and determination limit under repeatability conditions - Terms, methods, evaluation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3857-4 and ISO 8573-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Units

General use of SI units as given throughout this document is recommended, see ISO 80000-1. However, in agreement with accepted practice in the pneumatic field, some non-preferred SI units, accepted by ISO, are also used.