

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

B. Asbestos Exposure Assessment and Control in Occupational Settings

No./Title

**a-9. Ambient air – determination of asbestos fibres – direct-transfer TEM method**

Author/Contributor

International Organization for Standardization

Bibliographic ID

ISO 10312. 1995

**Introduction**

Asian context

This method is one of the representative direct TEM methods frequently used and its appendices include specific technical details that are very useful for the introduction of TEM microscopy for Asian countries. Valuable discussions on the calibration procedure and determination process of asbestos are well provided in this method.

Critical appraisal

This method provides a specified and refined technique using TEM that permits characterization of both fiber size and type. In order to compare the analysis results of this method directly with current occupational exposure limits on asbestos, analysis results of PCME fibers should be used.

Unique keywords

Abstract

Background: This method provides a detailed procedure for sampling and analyzing asbestos in ambient atmospheres using TEM.

Objective: The method is defined for polycarbonate capillary-pore filters or cellulose ester (either mixed esters of cellulose or cellulose nitrate) filters through which a known volume of air has been drawn. The method is suitable for determining asbestos in both exterior and building atmospheres. Countable asbestos fibers are defined as asbestos structures with length  $>0.5\ \mu\text{m}$ , width  $>0.002\ \mu\text{m}$  and aspect ratio (length: width ratio)  $>5:1$ . PCM equivalent fibers with length  $>5\ \mu\text{m}$ , width  $>0.25\ \mu\text{m}$  and aspect ratio (length: width ratio)  $>3:1$  are also counted.



No available PDF

## Annotation

Fact 1

- Annotation is not provided for this factsheet.

Fact 2



Fact 3



Fact 4



Fact 5



## References