Designation: D7910 – 14

Standard Practice for Collection of Fungal Material From Surfaces by Tape Lift[1]

This standard is issued under the fixed designation D7910; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice describes the protocols for collection of surface samples using tape lifts and their delivery to the laboratory.

1.2 The purpose of this practice is to support the field investigator in differentiating fungal materials from non-fungal material such as scuffs, soot deposits, stains, pigments, dust, efflorescence, adhesives, and water stains.

1.3 The samples collected by this practice are appropriate for either qualitative or quantitative analysis by direct microscopy.

1.4 This practice does not address building occupant exposures, or occupant health risks.

1.5 This practice does not address the development of a formal hypothesis or the establishment of sampling objectives.

1.6 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.8 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D1356 Terminology Relating to Sampling and Analysis of Atmospheres

D4840 Guide for Sample Chain-of-Custody Procedures

D6044 Guide for Representative Sampling for Management of Waste and Contaminated Media

3. Terminology

3.1 *Definitions*—For terminology not defined herein, refer to Terminology D1356.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *area (surface, sampled), n*—a defined, measured extent of surface sampled.

3.2.2 *chain of custody (COC), n*—a document that provides for the traceable transfer of field samples to the analytical laboratory. It may or may not be combined with the field data sheet. **D4840**

3.2.3 *direct microscopy analysis, n*—act of assessing microorganisms (if present) using an optical compound microscope.

3.2.4 *field data sheet, n*—a record of varying names that provides a reference document for information directly related to the sample collection event, including pre- and post-calibration data.

3.2.5 *fungal material, n*—fungal spores, hyphae, and reproductive structures.

3.2.6 *fungal structure (sing.), n*—collective term for fragments or groups of fragments from fungi, including but not limited to conidia, conidiophores, hyphae and spores.

3.2.7 *fungi (pl.), n*—eukaryotic, heterotrophic, absorptive organisms that usually develop a rather diffuse, branched, tubular body (that is, network of hyphae) and usually reproduce by means of spores.[3] The terms 'mold' and 'mildew' are frequently used by laypersons when referring to various fungal colonization.

[1] This practice is under the jurisdiction of ASTM Committee D22 on Air Quality and is the direct responsibility of Subcommittee D22.08 on Assessment, Sampling, and Analysis of Microorganisms.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Kendrick, B., *The Fifth Kingdom*, Focus Publishing / R. Pullins & Co, 2008.