Website: www.aerobiology.net

WIPE, Test Code 1097-Cryptococcus & Total Fungal Count with Identification

Cryptococcus is a fungus that grows as yeast in culture. Cryptococcus can be found in construction dusts and contaminated bird droppings. Certain species can cause meningitis in immune compromised individuals.

Cryptococcus is commonly used as a surrogate for Histoplasma capsulatum, a microfungi that is endemic in the soil in the US but particularly the Ohio River valley. Histoplasmosis is often associated with underlying immune disorders or children under the age of two. Histoplasma is difficult to culture in an environmental microbiology laboratory because it takes approximately six to eight weeks to grow and during that time the saprophytic fungi found in environmental samples overgrow the culture and makes detection difficult.

Histoplasma thrives in nitrogen rich matter, in particular bird droppings and guano and the spores are readily aerosolized and disseminated.

- 1. Crush the ampoule in the bottom of the swab to moisten the swab before sampling.
- 2. Remove both swabs of the double system and sample the affected surface by rolling both swabs vigorously over the area. Indicate surface area (cm^2 or in^2) on chain of custody. Assessment samples should be no larger than a 4 x 4 area. Post abatement samples may be larger.
- 3. Label all samples appropriately and submit to the laboratory for analysis in a timely manner. *Swabs should be refrigerated if the samples are not immediately sent to the lab. A cold pack and cooler should be used during the warm months.

References:

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples., 5.2.6.6:61, 7.1: 141-143 (2005).

Macher, Janet, Sc.D., M.P.H., Bioaerosols, 7.4.1.2, 18.1.4.2 (1999).