# The First Step for Improving IAQ



**Spot** is a Simple, Fast, Effective tool for detecting protein residue commonly found in: Mold, Fungi, Bacteria, and Allergen residues on HVAC components





## Why is a spot screening important

Spot is an important first step to identify the presence and activity of potentially harmful protein containing biological agents within your home or business HVAC system

" Indoor air pollution is among the top five environmental risks to public health. The best way to address this risk is to control or eliminate the sources of pollutants and to ventilate a home with clean outdoor air " Environmental Protection Agency EPA 402-F-09-002



## Why does spot test for protein and how is this associated with mold

Molds are considered to be microbes. A microbe is a microscopic organism that comprises a single cell, cell clusters, or multicellular organisms. Microorganisms are very diverse; they include bacteria, fungi, algae, and protozoa. A cell is the basic structural and functional unit of all known living organisms. A Protein is a biochemical compounds consisting of one or more polypeptides which, facilitate cellular and biological function. Proteins are essential parts of organisms and are found in virtually every process within cells. **"Molds, Bacteria, Fungi, and Biological contaminates contain proteins; spot tests specifically for those proteins"** 



#### How does spot screening kit work

Spot microbiological screening kit is a biochemical assay based technology for determining the total concentration of protein within the test solution; exhibited by the color change of the sample solution to purple in proportion to the protein concentration contained within the sample



#### What does a failed spot test mean

In the event your test fails it is advisable to: **1**) Discuss remediation options with your HVAC professional **2**) Submit a sample for verification to an accredited laboratory whose analytical methods follow those recommended by the American Industrial Hygiene Association (AIHA), or the American Conference of Governmental Industrial Hygienists (ACGIH). **3**) *IF YOU ARE EXPERIENCING HEALTH PROBLEMS OR HAVE HEALTH CONCERNS, CONSULT A PHYSICIAN OR HEALTH PROFESSIONAL IMMEDIATELY BEFORE TAKING FURTHER ACTION* 



#### Recommended uses

Spot Microbiological screening kit is useful in the screening of Residential, Commercial, Institutional, and Industrial applications as an initial screening during: Service calls, Home Inspections, Restoration, Remediation, Infection Control, Environmental Sampling, Custodial, Water Damage, and Post Remediation Verification

# What's Your IAQ

# Understanding Air Quality Systems

There are five major contributors to poor Indoor Air Quality: inadequate air filtration, poor air sanitation, inconsistent fresh air ventilation, air pollution from the outgassing of building materials and supplies in the form of volatile organic compounds, and the control of high humidity. Modern construction and "tight building" methods have improved energy efficiency, however have led to higher levels of indoor air pollutants. The upside to this is that Indoor Air Quality products exist; that in combination with each other can clean and refresh your indoor air without loosing efficiency



**5 HUMIDITY CONTROL:** The utilization of an air conditioner with a "reheat" dehumidification function or a dedicated central dehumidifier unit. Humidity control systems that comply with the EPA airPLUS quality standard should have sufficient latent capacity to maintain an indoor relative humidity (RH) at or below 60 percent **1 AIR FILTRATION:** The utilization of particulate media filters are intended to improve indoor air quality by capturing and retaining large airborne particulate matter such as dust, pollen, and animal dander. Media filters that comply with the EPA airPLUS quality standard should be rated MERV 8 or higher according to ASHRAE 52.2 (at approximately 295 fpm). As well the system should be designed so that there are no visible bypass between the filter and the filter rack

**2 AIR SANITATION:** The utilization of Ultraviolet Germicidal Irradiation Cleaners (UVGI) cleaners are intended to improve indoor air quality by deactivating indoor biological pollutants that are airborne or growing on the moist interiors of HVAC surfaces such as cooling coils, drain pans, or ductwork

**GENERAL VENTILATION:** The utilization of a mechanical ventilation system to exchange fresh outdoor air throughout the structure, and exhaust polluted air. Mechanical ventilation systems that comply with the EPA airPLUS quality standard should meet a rated fan airflow (at 0.25 in. w.c.) or the requirements of ASHRAE 62.2 Table section 7.1, 7.3

**POLLUTION CONTROL:** The utilization of a Photocatalytic Oxidation Cleaner. (PCO) cleaners are intended to destroy Volatile Organic Compounds (VOC) and odors in the air by converting them into inactive byproducts through the use of a catalyst reaction known as photocatalytic oxidation





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