



Better Air is Our Business®



AmericanAirFilter®

SAAFDETECT®

Visual Air Quality Indicator

- Determines strong gas presence or absence
- Visual color change indication
- Assess gas-phase filter performance
- Excellent cost to benefit ratio
- Immediate results — within hours
- Patent pending

SAAFDETECT® Visual Air Quality Indicator		
Date/Time Placed	Date/Time Removed	Hours Exposed

ID: _____

Upstream ☐ Downstream ☐ In-room ☐

Customer: _____

Location/Area: _____

Phone: _____ Email: _____

Instructions:

1. Remove SAAFDetect Visual Air Quality Indicator from plastic pouch. Place in a dry environment away from rain or direct sunlight. Note date and time of placement in the space provided above.
2. Expose the SAAFDetect to the environment for 2 hours.
3. At the end of the exposure time, retrieve, peel off the protective non-woven layer covering the SAAFDetect color wheels and immediately note corresponding color scale for each target gas.

Please note that the SAAFDetect may not react with target gases in lower concentrations. More sensitive monitoring may be necessary. AAF offers additional site assessment tools including Reactivity Monitoring Coupons and the SAAFShield Real Time Reactivity Monitor. Please visit our website at www.aafintl.com or contact us at 1-888-223-2003 for more information.

AAF Contact: _____

Phone: _____ Email: _____

Refer to brochure GPF-1-116B for further details.

Chlorine*

Ammonia

Nitrogen Dioxide*

Hydrogen Sulfide

Ozone*

Sulfur Dioxide

*Color change in any one of these three indicates the presence of an oxidizer gas. If indicator color does not match the color wheel, choose the closest match and disregard the other two.

A Cost Effective Solution

The SAAFDetect Visual Air Quality Indicator provides information on the presence of gases at a fraction of the cost of other methods. Historically gas concentration measurement or detection has been an expensive proposition requiring air impingers, carbon canisters, Tedlar® bags, single gas monitors, or other specialized instruments and their associated laboratory analyses. These services may cost hundreds of dollars per sample or thousands of dollars per instrument. Given these prohibitive analytical costs, it quickly becomes impractical for many building or facility managers to evaluate the simple presence of gas-phase contaminants at their site.

The SAAFDetect indicator provides an easy, visual indication of gas presence which can be used to evaluate the need for gas-phase filtration equipment, estimate existing filter efficiency, or point toward the need for more analytical methods. Building owners or facility managers can use this tool to perform initial evaluations and document the results through the use of a web based tool.

Principles of Operation

The SAAFDetect indicator uses proprietary chemically impregnated paper that changes color through reaction with gas contaminants in the air — similar to litmus paper reactions with acids or bases. The color and extent of color change depends on the gas, concentration of the gas, and the exposure time.

SAAFDETECT® Visual Air Quality Indicator

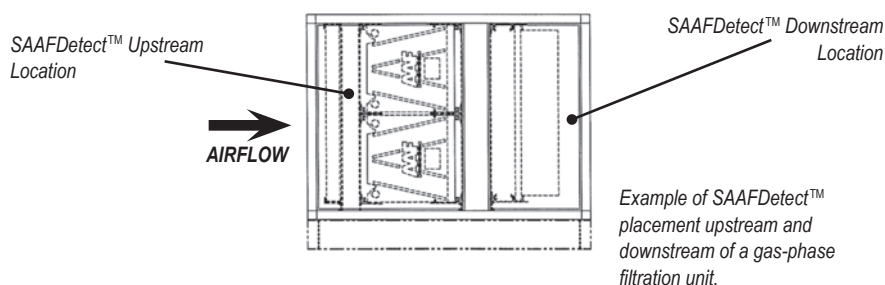
Where to Use SAAFDetect® Indicator

The SAAFDetect indicator can be used in multiple applications ranging from commercial buildings, museums, and archives to petrochemical refineries, pulp and paper mills, and wastewater plants. These sites can evaluate the presence of gas from sources such as those shown to the right for their presence and potential to cause irritation, degrade stored materials, corrode electronics, and cause odors.







































Potential locations include the following:

- outdoor air intakes
- upstream and downstream of gas-phase filters
- inside protected or critical spaces
- the outlet of odor scrubbers

These locations provide valuable information to clients related to gas presence and gas-phase filter performance.



Typical Gas Sources and Associated Concerns

	 Corrosive	 Odorous	 Degrades Stored Material	 Hazardous, Health Concern, Irritant		
Typical Source	Ammonia	Chlorine	Hydrogen Sulfide	Nitrogen Dioxide	Ozone	Sulfur Dioxide
Airplane Exhaust						
Aluminum Plant						
Animal Facilities						
Automobile Exhaust						
Chlorine Plant						
Drinking Water Plant						
Cleaning Products						
Cooling Towers						
Diesel Combustion						
Fertilizer Plant						
Geothermal Plant						
Helicopter Exhaust						
Industrial Processes						
Petrochemical Plant						
Pulp and Paper Plant						
Sprinklers (irrigation)						
WW Collection System						
WW Lift Stations						
WWTP						

Specifications

Accuracy

- Variations in temperature and RH within the stated ranges may cause changes in the readings. The SAAFDetect indicator results show the strong presence of gases. SAAFDetect may not react with gases in lower concentrations. In those cases, more sensitive monitoring techniques may be necessary. If the user requires research grade accuracy, is evaluating health impacts, or has other critical needs for exact concentrations, then other techniques are appropriate.

Dust

- Minimize dust exposure. A thin layer of dust filter media protects the SAAFDetect indicators, but they are not intended for heavy dust loadings.

Exposure Time

- Recommended exposure period is 2 hours.

Interferences

- The chlorine, nitrogen dioxide, and ozone indicators show cross-sensitivity with gases. The following gases are known to produce the following color changes.

Indicator	Cl2 & O3
chlorine	gray
ozone	gray
nitrogen dioxide	gray

Light

- Exposure to sunlight or other strong light sources will affect color change of indicators.

Liquids

- If contacted by liquids, discard.

Storage in original packaging

- 2 weeks in freezer (32 - 40°F; 0-4°C); 5 days at room temperature (68°F; 20°C)
- Becomes inactive after 2 hours exposure in an environment over 102°F (40°C)

Temperature

- 50 - 104°F (10-40°)

Relative Humidity

- 20 - 50%