



## INTRODUCING A NEW LEVEL OF PROTECTION AGAINST GASES AND ODORS

MICRONAIR GAS SHIELD

FREUDENBERG  
FILTRATION TECHNOLOGIES

 **FREUDENBERG**  
INNOVATING TOGETHER



## COMBATING AN URGENT REAL-WORLD PROBLEM

### TARGETED PROTECTION FOR VEHICLE PASSENGERS AGAINST HARMFUL GASES AND UNPLEASANT ODORS

The problem of air pollution is truly global. According to the World Health Organization (WHO), nine out of ten people worldwide breathe harmful air. This has serious consequences for health and wellbeing.

Polluted air directly causes or exacerbates severe respiratory diseases, such as chronic obstructive pulmonary disorder (COPD) or asthma.

#### The importance of cabin air filters

People traveling in vehicles are particularly at risk. In dense traffic, cars create a 'tunnel' effect, channelling high concentrations of polluted air directly into the vehicle.

#### A powerful new response

Based on our proven combi filter concept, the new micronAir® Gas Shield selection is highly effective in dealing with various gaseous pollution conditions, worldwide. Depending on your needs, the filter is equipped with one of three high-quality activated carbon combinations targeting specific gases or odors.



# MEET THE TEAM

## THREE LEVELS OF TARGETED PROTECTION

The new micronAir® Gas Shield selection offers three pre-formulated and regionally customized options to protect against specific types of gaseous pollutants:



### STANDARD PROTECTION

**Targeted protection against:**

- Acid gases such as nitrogen dioxide, sulfur dioxide or hydrogen sulfide
- Organic substances
- VOCs
- Ozone



### ODOR PROTECTION

**Targeted protection against:**

- Acid gases such as nitrogen dioxide, sulfur dioxide or hydrogen sulfide
- Organic substances
- VOCs
- Ozone

+ ADDITIONAL PROTECTION AGAINST NOXIOUS MOLECULES SUCH AS AMMONIA



### PREMIUM PROTECTION

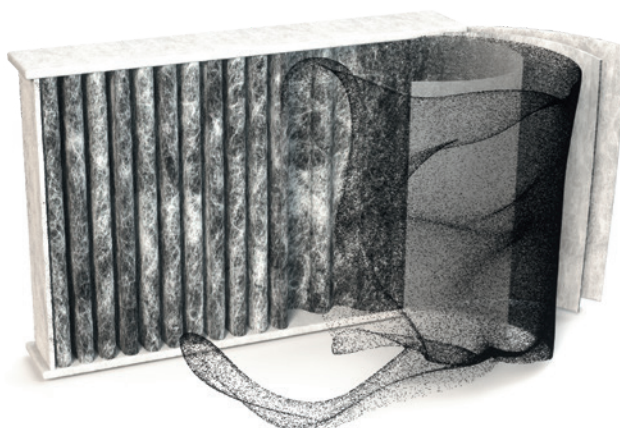
**Targeted protection against:**

- Acid gases such as nitrogen dioxide, sulfur dioxide or hydrogen sulfide
- Organic substances
- VOCs
- Ozone

+ ADDITIONAL PROTECTION AGAINST ALDEHYDES

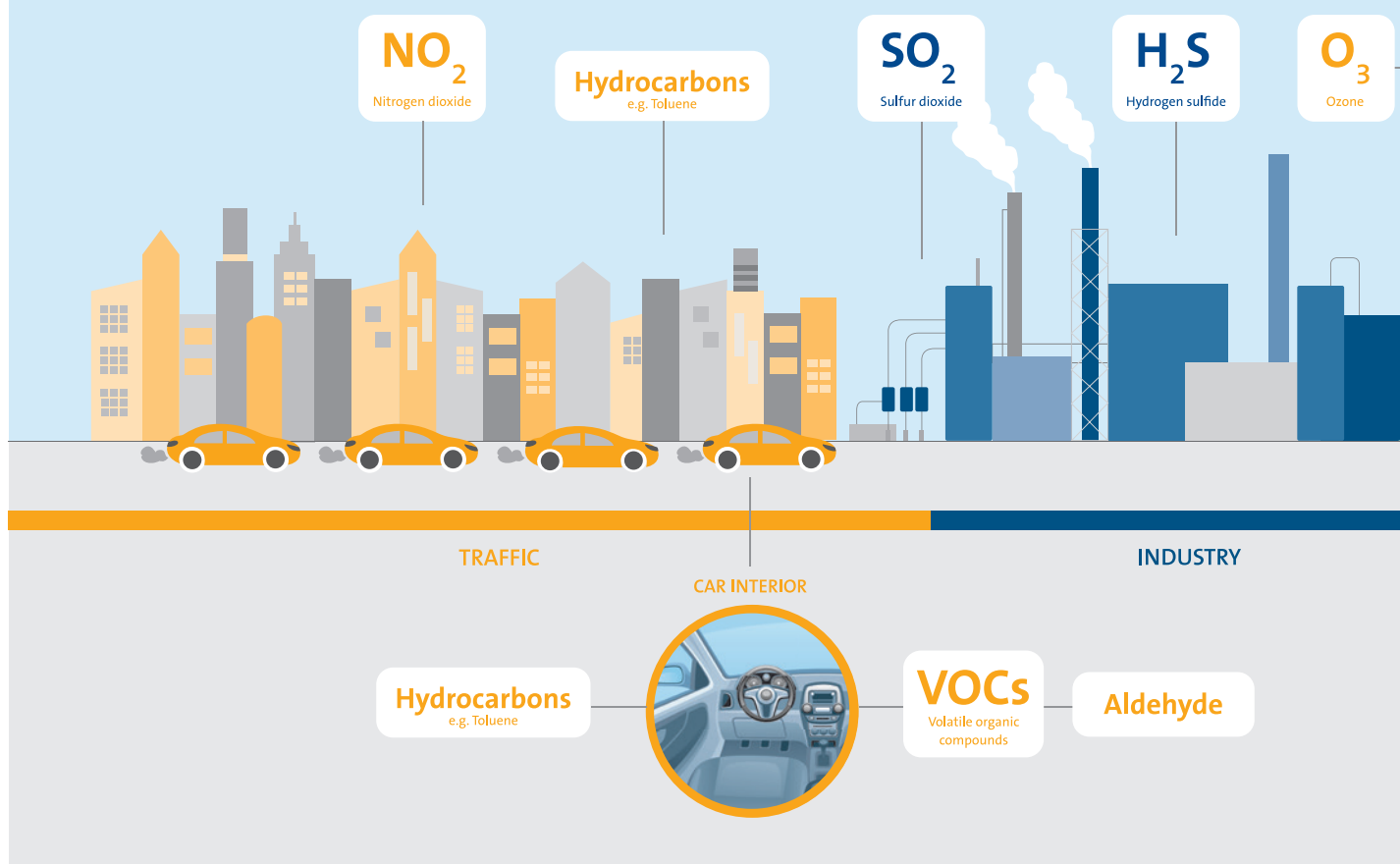
"THE NEW MICRONAIR GAS SHIELD SELECTION CAN BE MATCHED WITH ANY SPECIFIC CUSTOMER PRIORITIES – WHETHER THE FOCUS IS ON COARSE DUST, FINE DUST OR ALLERGENS."

Barry Kellar,  
Global Vice President Automotive Filters



# UNDERSTANDING THE RISKS

## TYPES AND SOURCES OF GASEOUS AIR POLLUTION



## QUALITY IS KEY

### THE BEST COMPONENTS AND THOROUGH TESTING

Freudenberg Filtration Technologies uses only top-quality activated carbon in combi filter solutions. All micronAir® Gas Shield mixtures have been extensively tested in our own labs worldwide, as well as on the road under real-life conditions.

The composition of each of the three combinations was developed during extensive research and testing in partnership with our customers. The resulting formulations thus reflect the specific protection requirements of different geographical regions.

micronAir® Gas Shield is suitable for use in all Freudenberg cabin air filters and can be integrated into any overall cabin air filter concept, such as micronAir® proTect line.





Ammonia



Hydrogen sulfide

Gaseous air pollutants are generated by human actions such as burning fossil fuels, industrial processes, agriculture and waste treatment. They are also naturally produced by volcanic eruptions, air-borne dust, sea spray and emissions of volatile organic compounds from plants.

Different regions of the world are characterized by different general patterns of pollution. This is why we have developed three distinct formulations to tackle varying types of gaseous pollution.



AGRICULTURE



Get a scent of the details by talking to your Freudenberg Filtration Technologies account manager or visit:



[www.freudenberg-filter.com/  
micronair-gas-shield](http://www.freudenberg-filter.com/micronair-gas-shield)





### Innovation partner to the automotive industry

Freudenberg Filtration Technologies is the global innovation partner in the development of first-class cabin air filters for the automotive industry. As inventor of the cabin air filter 30 years ago, we have decades of expertise that form the ideal basis for producing filter solutions of the highest quality.

If you have any questions or would like detailed information, please speak to your Freudenberg Filtration Technologies account manager or go to:

[www.freudenberg-filter.com/contact](http://www.freudenberg-filter.com/contact)



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