

MULTI-MIX[®] CHEMICAL MEDIA

GAS-PHASE FILTRATION Industrial and Commercial Applications













WHAT IS MULTI-MIX® MEDIA?

CIRCUL-AIRE[®]'s line of MULTI-MIX[®] gas-phase chemical filter media provides continuous purification of corrosive, odorous, and toxic contaminants in industrial and commercial environments. MULTI-MIX[®] media combines adsorption properties with chemical oxidation, catalytic oxidation, and acid-base neutralization. In addition, several MULTI-MIX[®] media are UL Class 1 (nonflammable).

The four basic MULTI-MIX[®] media types which have different chemical compositions are:

MM-1000	MM-3000	MM-7000	MM-9000
MULTI-MIX [®] MM-1000 is produced in 1/8-inch (0.3 cm) diameter spherical purple pellets composed of activated alumina impregnat- ed with potassium perman- ganate. The activated alumina collects contaminant mole- cules through adsorption. The contaminants thereby come in contact with the potassium permanganate, which is evenly distributed throughout the pellets. The contaminants are chemically and catalytically oxidized to an inert product.	MULTI-MIX [®] MM-3000 con- sists of a coal-based activated carbon of 1/8-inch (0.3 cm) diameter cylinders. Physical adsorption removes the con- taminants, which is a form of condensation. Activated car- bon is used for a wide range of contaminants with higher affinity to specific gases.	MULTI-MIX [®] MM-7000 is manufactured in 1/8-inch (0.3 cm) diameter cylinders and consists of activated car- bon impregnated with phos- phoric acid. Phosphoric acid is impregnated into the car- bon to provide enhanced efficiency and capacity for basic molecules. After adsorption, a chemical reaction follows to neutralize the contaminants.	MULTI-MIX [®] MM-9000 is manufactured in 1/8-inch (0.3 cm) diameter cylinders and consists of activated carbon impregnated with potassium hydroxide. Potassium hydroxide is impregnated into the carbon to provide enhanced efficiency and capacity for acid type molecules. After adsorption, the contaminants are neutralized or oxidized catalytically to inert products.
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A FORMULA... FOR EVERY APPLICATION.

Various high-efficiency MULTI-MIX[®] formulas enable CIRCUL-AIRE[®] to provide the most fitting combination of physical and chemical characteristics to meet the specific needs of each application. Additionally, media can be impregnated with specific chemical agents for selective contaminants.

CIRCUL-AIRE[®]'s in-house ISO-Certified laboratory can also provide additional performance tests against specific contaminants.



INDUSTRIAL AND COMMERCIAL APPLICATIONS.

MULTI-MIX^{*} is used to control corrosive gases, such as SO₂, H₂S, Cl₂, and NH₃, which attack delicate process control equipment in heavy industry. In light industry, it is used to eliminate malodorous and nuisance odors which affect people's health and well-being.

MULTI-MIX[®] is very efficient in the commercial and institutional sectors where airborne contaminants are created from human activities, operating equipment, furniture, construction materials, and outdoor contaminants. A controlled environment will protect people's health and improve their comfort and productivity.

- Suitable for: Outdoor air requiring purification
 - Re-circulated air requiring filtration
 - Exhaust air requiring purification due to environmental regulations



Heavy Industry	Light Industry	Commercial and Institutional Sectors
Refineries	Laboratories	Office Buildings
Petrochemical	Pharmaceuticals	Hospitals
• Mining	• Telecommunications	• Museums
• Pulp & Paper	• Hospitality	• Schools
• • Course Treatment Plants	• Airporte	• Cafatavias
Sewage meatment Plants	Airports	Caleterias

ADVANTAGES OF MULTI-MIX®.

Versatile	Adapts to multiple applications and air conditioning or filtration equipment, industrial and commercial, new or retrofit. Easy accommodation for future changes in building layout and/or activities.	
Easy and Reliable	No complex maintenance procedures required.	
Energy Saving	Utilizes re-circulated air which reduces outside air requirements.	
High Efficiency	High removal efficiency in multiple contaminant environments.	
High Removal Capacity	Circul-Aire [®] configurations are available for light to severe environments.	

PHYSICAL PROPERTIES.

1.	Superior Crush Strength	Circul-Aire [®] 's production procedures create uniform MULTI-MIX [®] media pellets with a high crush strength. The high-crush strength keeps abrasion loss (dusting) to a minimum.
2.	Superior Pore Structure	Cutting-edge manufacturing procedures result in the highest possible level of media porosity. This provides additional surface area for the removal of contaminants, resulting in higher sustained efficiency and longer effective life.
3.	Superior Retention	MULTI-MIX [®] media MM-1000, MM-7000 and MM-9000 do not desorb contaminants under surge conditions or sudden temperature/humidity changes.
4.	Temperature Range	From -40°F to 120°F From -40°C to 48.9°C
5.	Humidity Range	From 10 percent to 95 percent
6.	Contamination Concentration	From 0 to >25 ppm

TECH-CHEK[™] SERVICE.

Circul-Aire[®]'s TECH-CHEK[™] Service is offered on an ongoing basis to all its clients at no additional charge, as media analysis through the TECH-CHEK[™] Program ensures maximum efficiency of Circul-Aire products.

Samples of Circul-Aire[®]'s MULTI-MIX[®] chemical media, which are ideally taken quarterly from the client's filtration equipment, are sent to Circul-Aire's in-house ISO-Certified laboratory, where the media is analyzed for Life Expended.

Via a detailed report to the client, Circul-Aire[®]'s TECH-CHEK[™] Service not only provides a precise maintenance schedule, but also ensures the highest performance of Circul-Aire[®]'s equipment at the most economical cost.

PACKAGING.

MULTI-MIX[®] media is packaged in a variety of containers, including 50-lb. (22.7 kg) boxes, 1-cubic foot boxes, 55-gallon fiber drums, and 6-cubic foot or 20-cubic foot super sacks. As an option, the media can be packaged in plastic pails.





USA 10898 Crabapple Road Suite 103 Roswell, Georgia 30075 **CANADA** 3999 Cote Vertu Montreal, Quebec Canada H4R 1R2

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www.circul-aire.com

ISO 9001:2000 Certified

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at any time,