



## SP-904 Chemical Media

SP-904 media is generally spherical, porous pellets formed from activated alumina impregnated with potassium permanganate ( $\text{KMnO}_4$ ) for reaction with target gases. SP-904 media is an agglomerated pellet that allows the active ingredients to be applied during pellet formation, such that the impregnant is uniformly distributed throughout the pellet volume.



SP-904 media removes contaminant gases by chemisorption using adsorption and chemical reaction. Gases are trapped within the pellet and converted into harmless solids which remain in the pellet, eliminating the possibility of desorption and release back into the airstream. The reaction mechanism used with potassium permanganate is oxidation allowing the media to react with a broader spectrum of gases beyond acid gases. A noticeable color change is apparent as the permanganate is reduced to manganese dioxide (light brown) and finally manganese oxide (white).

**Target Contaminants :** sulfur oxides, formaldehyde, ethylene, nitrogen oxides, hydrogen sulfide, organic acids, and lower molecular weight aldehydes

### PHYSICAL PROPERTIES

The components of SP-904 media shall have the following physical properties:

Apparent density :	0.8 g/cc (50 lbs/ft <sup>3</sup> )
Crush strength :	25 N minimum
Moisture Content :	25%
$\text{KMnO}_4$ Content :	4 wt % minimum
Nominal diameter:	4 mm
Shape:	Sphere

### INSTALLATION GUIDELINES

Installers shall use dust masks, safety goggles, and rubber gloves.

### DISPOSAL GUIDELINES

Spent SP-904 media should be disposed of according to local, state, and federal guidelines.

### APPLICATION GUIDELINES

SP-904 media shall perform effectively under the following conditions and guidelines:

<b>Temperature:</b>	-4°F to 131°F (-20°C to 55°C)
<b>Humidity:</b>	10% - 95% RH
<b>Airflow:</b>	Suitable for use in commercial and industrial systems with equipment face velocities from 50 - 500 fpm (0.25 -2.5 m/s).
<b>Media Life:</b>	Regular media samples shall be taken for projecting remaining media life, providing scheduled maintenance, and ensuring performance.

### PACKAGING OPTIONS

SP-904 chemical media is available in:	
1-cu.ft. box (50-lb.)	#826-M904
6-gallon pail (40-lb.)	#846-M904
1100-lb super sacks	#816-M904

