

# 3M™ Multi Gas/Vapor Cartridge 6006



## Specifications

Accessories	Yes
Brand	3M™
Cartridge or Filter Type	Gas and Vapor
Case Quantity	30/case
Clip-on Welding Shield	Yes
Compatible Respirator	3M™ Full Facepieces 6000, 3M™ Full Facepieces 7800 Series, 3M™ Full Facepieces FF-400, 3M™ Half Facepiece Reusable Respirators 6000 Series, 3M™ Half Facepiece Reusable Respirators 6500 Series, 3M™ Half Facepiece Reusable Respirators 7500 Series, 3M™ Half Facepiece Reusable Respirators 7800 Series
Compatible with 3M™ PAPR Systems	Yes





**Finishing, Final Finish, Handling, Hazardous Waste Handling, Laboratories, Maintenance, Manufacturing, Paint Preparation, Painting, Parts Cleaning, Petrochemical, Pharmaceuticals, Pouring Molten Metal, Remediation, Seal Coatings, Welding**

**Facility Sanitation, Food Processing, Food Safety,**

**Recommended Industry** General Manufacturing, Mining, Oil & Gas, Transportation

<b>Segment</b>	<b>Personal Safety</b>
----------------	------------------------

<b>Silicone Face Seal</b>	<b>Yes</b>
---------------------------	------------

<b>Six-point Head Harness</b>	<b>Yes</b>
-------------------------------	------------

<b>Spare Parts</b>	<b>Yes</b>
--------------------	------------

<b>Speaking Diaphragm</b>	<b>Yes</b>
---------------------------	------------

<b>Standards/Approvals</b>	<b>Ammonia, Chlorine, Chlorine Dioxide, Formaldehyde, Hydrogen Chloride, Hydrogen Fluoride, Hydrogen Sulfide, Methylamine, Organic Vapors, Sulfur Dioxide</b>
----------------------------	---

## Details

- NIOSH approved for protection against certain organic vapors, acid gases, ammonia, methylamine and formaldehyde
- Swept-back design allows an enhanced field of view and comfort
- Bayonet compatibility allows use with many 3M half and full facepiece designs
- Wide range of applications reduces inventory needs
- Simple installation and usage requirements reduces training requirements

NIOSH approved against certain organic vapors, acid gases, ammonia, methylamine or formaldehyde. Use with 3M™ Half and Full Facepieces 6000, 7000 and FF-400 Series with bayonet filter holders.

The 3M™ Multi Gas & Vapor Cartridge 6006 helps provide gas and vapor protection in a variety of environments. The cartridge may be used for gas and vapor concentrations up to 10 times the Permissible Exposure Limit (PEL) with half facepieces or 50 times PEL with quantitatively fit tested full facepieces. Recommended applications for the cartridge include assembly, batch-charging, chemical clean-up, chemical transfer, cleaning, hazardous waste handling, painting, pouring molten metal. Inventory needs and training requirements for safety equipment are reduced because this respirator cartridge selection works for many different applications. Industries in which this cartridge is commonly used include chemicals, mining, oil and gas, and primary metals. This multi gas and vapor cartridge works with 3M™ Half and Full Facepieces 6000, 7000 and FF-400 Series with bayonet holders. The cartridge is NIOSH (National Institute for Occupational Safety and Health) approved for environments containing certain organic vapors, chlorine, hydrogen chloride, chlorine dioxide, sulfur dioxide, hydrogen sulfide, ammonia, methylamine, formaldehyde or hydrogen fluoride. The cartridge has been assigned the color code “olive” in the NIOSH system.

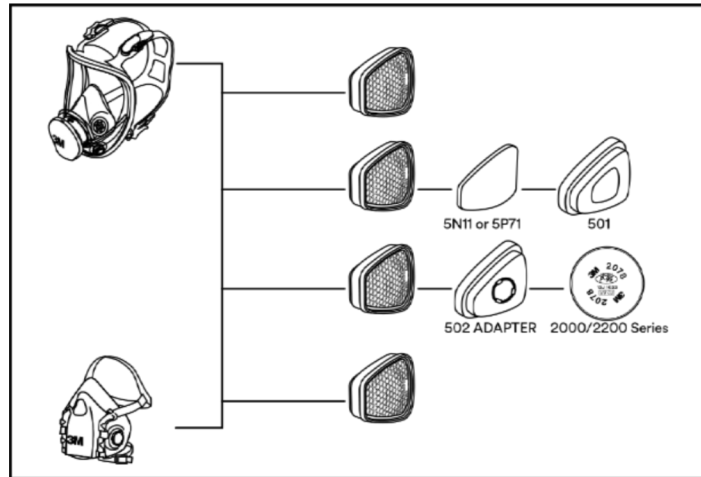


**THADHANI®**  
The Experts in Safety... Since 1947

Breathing gases and vapors can pose a risk to your health. NIOSH, a Federal government regulatory agency, has tested and approved the 3M™ Organic Vapor Cartridge 6006 to help reduce exposure to certain gases and vapors.



3M™ Multi Gas/Vapor Cartridges shown with 3M™ Full Facepiece 6000 Series and 3M™ Organic Vapor Monitor 3510.



**THADHANI<sup>®</sup>**  
The Experts in Safety... Since 1947

**J.THADHANI & CO.**

New #12/ Old #28, Stringers Street,  
Chennai - 600001, Tamilnadu, India.



044 - 4262 5223

info@thadhanisafety.com

www.thadhanisafety.com



# How an Organic Vapor Respirator Cartridge Works

3M makes organic vapor respirator cartridges to help reduce user exposure to many different organic vapors.

To achieve this objective, respirator cartridges are filled with a material called activated carbon. Activated carbon is typically made from coal or renewable resources like wood or coconut shells.

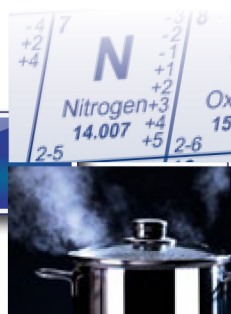
It is "activated" by heating the material in nitrogen or steam at approximate temperatures of 800 – 900 °C. The resulting material has a significant number of micropores that help adsorb various organic vapors. These micropores can be measured and optimized for specific product needs and performance.



Coal or renewable resources, such as coconut shells



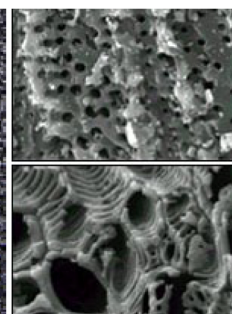
Coal or renewable resources are heated without oxygen



High-temperature steam or nitrogen activation



High-grade activated carbon



Electron micrographs of activated carbon pores

When organic vapors are drawn through an organic vapor cartridge, the air is filtered as vapors condense into the carbon pores. Vapors move through the cartridge from one pore to the next. This occurs more quickly for small volatile vapors with lower boiling points (e.g., acetone). Some migration of organic vapors can even occur during storage, so care must be taken before reusing the cartridge. The effective service life is the time until vapors begin to exit the cartridge.

Unlike particle filters, service life is not indicated by change in breathing resistance. Instead, cartridges must be changed according to local regulations; end-of-service-life indicator; taste, smell, or irritation from the contaminant; or according to 3M™ Service Life Software calculation, whichever comes first.

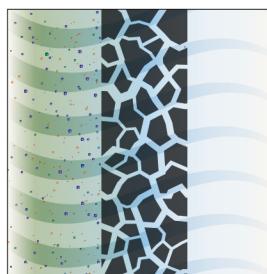
Activated carbon by itself cannot adsorb other types of gases or vapors such as acid gases, ammonia, formaldehyde, etc. In some cases, additional metals and salts are added to the carbon to selectively remove these compounds. For this reason, 3M offers a variety of cartridges and facepieces to help protect workers in different environments and satisfy personal preferences.

3M is committed to develop quality safety products to help protect workers. For more information about 3M organic vapor cartridges, please read Technical Data Bulletin #142 "Reuse of Organic Vapor Chemical Cartridges" at [www.3M.com/PPESafetySolutions](http://www.3M.com/PPESafetySolutions).

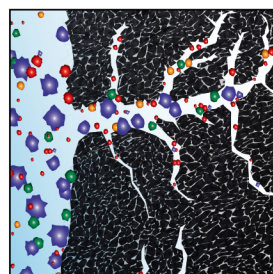
To establish a cartridge change schedule, visit [www.3M.com/SLSWeb/index.html](http://www.3M.com/SLSWeb/index.html).

## Factors that influence service life:

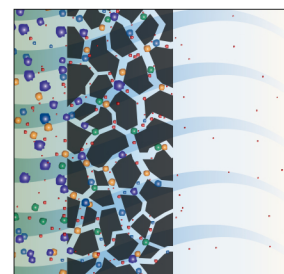
- Exposure concentration
- Temperature
- Humidity (water vapor takes up space in carbon pores)
- Breathing rate



Unfiltered organic vapors are drawn into the cartridge.



Activated carbon adsorbs organic vapors on molecular level.



Service life continues until vapors begin to escape the cartridge.



### WARNING

These respirators help protect against certain airborne contaminants. Before use, the wearer must read and understand the User Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. **Misuse may result in sickness or death.** For proper use, see packaging instructions, supervisor, or call 3M OH&ESD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.



**THADHANI**<sup>®</sup>  
The Experts in Safety... Since 1947

J. THADHANI & CO.

New #12/ Old #28, Stringers Street,  
Chennai - 600001, Tamilnadu, India.



044 - 4262 5223



[info@thadhanisafety.com](mailto:info@thadhanisafety.com)



[www.thadhanisafety.com](http://www.thadhanisafety.com)