

The MAXAIR® Systems 2166-10 Nuisance Organic Vapor (N-OV) Filter Cartridge is a multiple function Filter Cartridge for respiratory protection to be used exclusively with MAXAIR CAPR Powered Air Purifying Respirator (PAPR) Systems.

### Indications for use of the 2166-10

Situations requiring a NIOSH approved, HE rated, loose fitting (Helmet with Cuff or Shroud) powered air purifying respirator.

- Non-IDLH atmospheres where the oxygen content is between 19.5% and 25%.
- Primarily where there is exposure to airborne particulate contaminants.
- Additionally where there is exposure to nuisance levels of organic vapors.
- Where XP Performance is required -
  - NIOSH HE level filtration
  - Oily environments requiring oil resistant performance.

### Nuisance Level of Organic Vapor

Nuisance level or organic vapor is generally defined as a concentration of organic vapor below the OSHA PEL, or other applicable limits of exposure, whichever is lower.

Organic vapors are given off from compounds that contain carbon, and typically the reference is to liquids that evaporate quickly, e.g. oil and petroleum products.

N-OV filters can reduce exposure to different organic vapors because they contain activated carbon. The activated carbon contains micropores that adsorb some of the organic vapor passing through the filter.

### Factors Affecting Service Life of N-OV Filters

- The primary factors affecting service life of N-OV filters include -
1. Exposure concentration - the type of contaminant and its concentration break down the filter's service life; each type of contaminant can have a different rate of effect on a given filter.
  2. Migration - the filter's activated carbon is "working" whenever it is exposed to an atmosphere; maintain a N-OV filter in a sealed bag whenever possible to extend its service life.
  3. Temperature - as temperature increases, filter service life decreases.
  4. Humidity - as humidity increases, filter service life decreases.
  5. Amount of activated carbon - the more activated carbon the longer the service life.



### Applications

Applications where a N-OV cartridge may provide partial and temporary relief from nuisance levels of organic vapors include working in areas where there is -

- livestock
- landfill (waste)
- rotten organic matter
- organic based cleaners
- oil based solvents, e.g. turpentine, paint thinner, perfumes, etc.

### MAXAIR System Configurations with the 2166-10

SYSTEM	FACE/HEAD COVER
<b>CA-DLC-CAPR-36 with 2500-36TSC Battery</b>	<b>CUFF</b>
	2365-02SM 2365-02ML
<b>-or-</b>	<b>SINGLE SHROUD</b>
	2260-05SM 2265-02ML
<b>CA-DLC-CAPR-37 with 2500-37TSC Battery</b>	<b>DOUBLE SHROUD</b>
	2261-01SM 2261-01ML

### 2166-10 N-OV Filter Cartridge Key Advantages and Specifications



CA-DLC-CAPR-37 System with  
2166-10 N-OV Filter Cartridge and  
2260-05ML Single Shroud

- Multipurpose Protection
  - ▶ NIOSH HE level particulate filtration
  - ▶ Oil resistant - Replace every 8 hours, when yellow LED lights, or earlier
  - ▶ Nuisance level protection for organic vapors
    - Levels below OSHA PEL
    - Typical recommended range is  $\leq 5\%$  of OSHA PEL
    - Maximum recommended range  $\leq 10\%$  of OSHA PEL
- Positive Pressure PAPR with no breathing resistance
- No Hose PAPR for maximum maneuverability without concern for bumping or catching on nearby objects

Material	Electrostatic Polypropylene Modacrylic Blend, Electrostatic Modified Acrylic, Activated Carbon, Chromium free
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The patented MAXAIR Systems No Hose PAPR combined with an exclusive N-OV Filter Cartridge design provides an extremely easy to use, comfortable, and highly protective respiratory protection system for a wide variety of applications and work environments.

Nuisance level protection for volatile organic compounds is exemplified by the loading efficiency curves below for 100%, 75%, and 50% of the OSHA PEL.

