MITR™-RF

COMPACT RIOT & PARTICULATE FILTER

INTRODUCTION

- Mission ready design
- Protection against riot agents, including CS and CN
- Protection against particulates, including pharmaceutical and biological agents
- Protects against nuisance odors
- Conformal, low profile shape
- Low breathing effort

The Avon Protection MITR™-RF Compact Riot and Particulate Filter is a low-profile combination filter containing activated carbon cloth for riot agent vapor protection and a pleated, high efficiency filter element for protection against biological and pharmaceutical agents.

DESCRIPTION

The filter body is made of a high-quality engineering construction plastic, strategically chosen for its toughness and strength. This material gives the MITR-RF extreme durability against the shocks and impacts that are commonly experienced by equipment during operational use. The filter body is black in color and has a matte finish to reduce reflection.

The activated carbon cloth was carefully selected to provide optimal riot agent vapor protection without unduly burdening breathing.

The high efficiency filter element is made of high performance, synthetic particulate filtration media, selected to lend high protection capacity while maintaining low breathing resistance and profile.

The filter is conformal, meaning it sits tight against the mask, reducing snag risks and eliminating grab points. This close-fit design improves balance by keeping the weight closer to the face, helping reduce neck fatigue and lowering the chance of breaking the mask seal during fast movement.

The MITR-RF Compact Riot and Particulate Filter is entirely non-ferrous and non-magnetic.

EFFECTIVENESS

The MITR-RF Compact Riot and Particulate Filter is Avon-approved for use as part of the MITR™ modular protection system.

The MITR-RF filter is purpose-built to provide protection against common riot control agents including CS, CN, CR, OC, and PAVA. Riot agents are predominantly particulate in nature with some vapor.

Tested to the published NIOSH method for CS and CN vapor protection at 25 °C, it has been validated under demanding laboratory conditions as well as in real world trials. Out of the listed riot agents, CN will have the lowest protection time. Anticipated use times for all riot agents will exceed two hours.

Threat	CN	CS
Flow	64 l/min	64 l/min
Challenge Concentration	16 ppm	3 ppm
Breakthrough Concentration	0.05 ppm	0.05 ppm
Laboratory Breakthrough Time	> 75 min	> 400 min

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The protection times shown are based on standard laboratory test conditions and are provided for reference. Actual use times will vary depending on the concentration of riot agents, temperature, breathing rate, and operational environment. Users should be aware that higher temperatures and faster breathing rates can shorten protection times.

The MITR-RF delivers particulate protection efficiencies greater than 99.97% against oil- and non-oil-based contaminants. Particulates protected against include pharmaceutical agents, biological agents, and other particulates, examples are listed in the table below.

Pharmaceutical Agents	Biological Agents	Other Particulates
Acetylfentanyl	Anthrax	Asbestos
Carfentanil	Brucella	Firearm lubricants
Fentanyl	Ebola	Metal Fumes
Illicit drugs particulates	Mold	Munitions residue including antimony, barium, copper, lead, and zinc
Methamphetamine	Ricin	Radiological and nuclear particulates
Opioids	Smallpox	Smoke particulates

Please follow the User Instructions which provides additional guidance including instructions for safe use. Not for use in oxygen deficient or enriched environments.

OPERATIONAL ENVIRONMENT

The MITR-RF filter provides effective protection in all anticipated operational settings.

Hot - The filters have been tested after exposure to heat, remaining effective after exposure to temperatures of 1 59°F (71°C).

Cold - The filters have been tested after exposure to cold, remaining effective after exposure to temperatures of -26°F (-32°C).

Humid - The filters have been tested per U.S. military standards for humidity, remaining effective after exposure to humidities as high as 95% RH at temperatures up to 140°F (60°C).

Wet - Filters tested to meet the requirements of NATO water repellency standards. Avon recommends replacing the filter cartridge if it has been immersed in, or heavily soaked in, water.

Dusty - The filter retains its protection capabilities in dusty environments. Avon recommends replacing the filter cartridge if breathing becomes cumbersome due to excessive dust clogging.

Recommended Storage - The filter (sealed and packaged) should be stored at 20 ± 10°C / 68 ± 18°F, <80% RH.

PACKAGING

The MITR-RF Compact Riot and Particulate Filter is supplied in a plastic bag.

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