CBRNCF50 CE CBRN FILTER

- **Unique "on-board" humidity indicator**
- **Ruggedized packaging**
- **5.5 Year Shelf life**

The Avon Protection CBRNCF50 CE filter canister is intended for use by first responders, in conjunction with full face masks when attending known or potential CBRN incidents. The filter is also suitable for use during incidents involving Toxic Industrial Chemicals (TIC) such as chlorine or ammonia and in atmospheres where riot control agents such as CS or CN may be present.

The product is a conventional circular filter with a standard EN 148-1 screw thread.

The filter canister conforms to European Standard EN 14387:2004+ A1:2008 class A1B2E1K1P3.

Additionally, the filter canister has been tested against the chemical warfare agents (CWA) Sarin (GB), Hydrogen Cyanide (AC) and Cyanogen Chloride (CK), with test results demonstrating a capacity equivalent to typical military filters.

a. Nerve Agents
"G" Series
"V" Series
Any thickened form of agent

b. Blister Agents
Mustard
Lewisite
Any thickened form of agent

c. Blood Agents
Hydrogen Cyanide
Cyanogen Chloride

d. Riot Control Agents
CS
CN
OC (Pepper Spray)

The protection against many Toxic Industrial Chemicals (TICs) includes: organic vapors with a boiling point over 65°C (149°F), chlorine, hydrogen sulfide, sulfur dioxide, formaldehyde, nitrogen dioxide, phosgene, phosphine, hydrogen chloride, hydrogen fluoride, methlyamine, and ammonia.

PERFORMANCE

Breathing resistance
45mm of H_2O @ 85 l/min (typical)

CE — **Meets PPE Reg (EU) 2016/425**

TIC|TIM — **TIC/TIM Capable**

5.5 YEARS — **5.5 Year Shelf Life**

CR — **Chromium Free**

DESCRIPTION

Construction materials
The canister body is made of a modified polyphenylene ether-polystyrene blend (PPE&PS), which is a high quality engineering construction polymer. It provides a very robust product which is extremely durable against shock and impact in operational use. The canister body is black in colour and has a spark finish to reduce reflection.

Gas adsorption is by chrome-free activated charcoal impregnated with metallic salts and other compounds to provide a balanced performance against both physically and chemically adsorbed species.

The high efficiency filter element is made of PTFE, PET/PE.

The CBRNCF50 CE is entirely non-ferrous and non-magnetic.

SPECIFICATION

Dimensions	
Diameter	111mm (4.37in)
Height to bottom of thread	94.3mm (3.70in)
Thread	40mm to NATO STANAG 4155
Weight	365 grams (12.87oz) approx
Colour	Black

EFFECTIVENESS

Against Chemical and Biological Agents
Typical performance against the gas / vapour agents used during BS / EN Approval testing as follows:

Threat	Challenge Concentration		Breakthrough	
	% by Volume**	mg per litre	ml per m3***	Time (min)
Cyclohexane	0.10	3.50	10	70
Chlorine	0.50	15.00	0.5	20
Hydrogen Sulfide	0.50	7.10	10	40
Hydrogen Cyanide	0.50	5.60	10	25
Sulfur Dioxide	0.10	2.70	5	20
Ammonia	0.10	0.70	25	50

Standard test flow: 30l/min
Rated at A1 B2 E1 K1 P3
** 1% by volume = 10,000ppm
*** 1ml/m3 = 1ppm

Note: The protection time is indicated for standard laboratory test conditions. THESE DO NOT NECESSARILY RELATE TO ACTUAL USE TIMES. Actual use times must be verified on the basis of a risk assessment of the likely hazards present in the intended use area.

The performance of the canister is, of course, dependent upon the actual concentration encountered. The filter canister can be changed under all operational conditions in 9 seconds.

HUMIDITY INDICATOR

A unique standard humidity indicator is located on the top of the CBRNCF50 CE filter and visually displays performance degradation due to moisture uptake over time. The indicator turns white to blue signaling that the unit pack was compromised and the filter must be discarded.

ENVIRONMENTAL

The materials used and the method of construction of the filter canister have been designed to meet operation and storage requirements in accordance with EN14387 criteria. When stored in its original packaging the filter canister retains its operational effectiveness and efficiency under the following environmental storage conditions:

Operational Temperature -32°C to 71°C (25.6°F to 159.8°F)
The filters have been exposed to high and low ambient storage temperatures without harmful effects.

Humidity range 5% to 100% RH
The filter has been tested following storage in high humidity environments and has been found to be effective.

Rain
The filter will retain its effectiveness in heavy rainfall conditions and is not prone to water ingress.

Salt Breeze
The filter will not deteriorate with exposure to salt breezes for 24 hours.

Sand and Dust
The filter will not deteriorate when exposed to 24 hours of wind driven sand and dust conditions.

Recommended Storage and Shelf Life
The predicted shelf life of the filter canister (sealed and packaged) is 5.5 years when stored at 20 ± 10°C, <80%RH.

PACKAGING

The rugged exterior filter container is designed to be stackable, tamper evident and includes relevant information such as lot number and expiration date. Each CBRNCF50 CE is individually sealed in its own container and is supplied in a package of four.

CE EU type-examination conducted by BSI Assurance Ltd. This filter meets the requirements of the PPE Regulation (EU) 2016/425. Certificate number: CE696005

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