



# C50<sup>TM</sup>

THE ALL CHALLENGE MASK

AIR PURIFYING RESPIRATOR

**AVON**  
PROTECTION

# C50™

THE ALL CHALLENGE MASK



The Avon C50 protective mask is based on the U.S. M50/ JSGPM (Joint Services General Purpose Mask) and sharing key technologies, provides maximum operational flexibility to counter multiple threat scenarios, including chemical, biological, nuclear and radiological (CBRN) agents, Toxic Industrial Chemicals (TICs), and Toxic Industrial Materials (TIMs).

The C50 offers high protection, outstanding field of vision and superior comfort. The innovative design features optimize the user's time in the operational area.

#### IDEAL FOR:

**Battlefield CBRN protection**  
**First Responders**  
**Corrections Officers**  
**Specialist law enforcement**  
**Counter terrorism operations**



C50 single & twin filter port masks are CE certified for use in a CBRN environment (Article 10 certificate number C11-6401-1)



The C50 twin port mask is NIOSH CBRN Cap 1 approved with the CBRNF12B filter (TC-14G-0285) and NIOSH 42 CFR 84 riot control CS/CN/P100 approved with the CTF12 filter (TC-14G-0278)

The C50 meets the latest NATO military requirements

#### UNIQUE VISOR TECHNOLOGY

- Polyurethane visor is highly flexible plus scratch and impact resistant and will not yellow over time
- Optically correct across the whole field of view
- Panoramic visor design gives excellent field of vision and wearer recognition while enhancing compatibility with weapon sights
- The Vision Correction System allows prescription lenses to be mounted inside the mask
- Clear outserts for extreme environments
- Sunlight outserts for high intensity light situations
- BlueBlocker outsert delivers sharper images by filtering out specific light wavelengths



#### AIR FLOW MANAGEMENT

- Heat build up minimized
- Low inhalation resistance
- Excellent de-mist properties
- Common valves for simplicity and lower through-life cost

# THE ALL CHALLENGE MASK

## USER BENEFITS

- The unique chlorobutyl/silicone blend face piece material ensures the mask is not only high in protection but also provides a better seal and is more comfortable to wear for extended periods
- Compatibility with helmets, CBRN protective clothing and NFPA Class 3 Suits due to the low profile, close contour brow, flat buckles and extended chin flap
- Quick donning due to the pre-adjusted buckles
- 3 sizes providing secure and comfortable fit for all facial shapes and sizes

## HYDRATION

- High flow fail safe drinking device allows connection to either a canteen or bladder type hydration system

## COMMUNICATIONS

- Front mounted exhale valve allows clear direct communication
- For enhanced communication, an optional Voice Projection Unit (VPU) with internal microphone is easily connected via the Electronic Communication Port (ECP)
- Additional external communication systems can be attached via this ECP using available leads

## FILTRATION

- Filter canisters are side mounted on either left or right side minimizing interference and allowing improved capability for shoulder mounted devices  
Standard STANAG round thread 40 x 1/7 mm
- Allows for PAPR devices for improved protection



**C50™**



## C50 Mask Specifications

Filter	Part Number	Classification	Application
<b>CSCF50</b>	72601/71/4	Riot Control	All particulate hazards including dust, fume, bacteria and virus, plus riot agent CS (meets 8 hour NIOSH test standards) and CN (<1 hour NIOSH test standards).
<b>CTCF50</b>	72606/3	Riot Control	Removal of aerosols, particulate matter, smoke, fumes and vapours. Specifically designed for removal of tear gases including CS, CN and OC pepper spray.
<b>GPCF50</b>	72601/70/2	NATO CBRN	Chemical, biological and radiological warfare agents in accordance with NATO requirements. Also certain toxic industrial chemicals such as chlorine, hydrogen sulphide, sulphur dioxide and organic vapors, with a boiling point of above 65°C.
<b>CBRNF12B</b>	71510/1	NIOSH Approved CBRN CAP 1	Dual classification for industrial and CBRN applications. All particulate hazards including dust, mist, fume, bacteria and virus plus all NIOSH specified CBRN gases and vapors including nerve, blood, choking and blister agents and toxic industrial materials.
<b>CBRNF12CE</b>	70010/23/1	CE Approved EN14387:04 A1 B2 E1 K1 P3	Dual classification for industrial and CBRN applications. All particulate hazards including dust, mist, fume, bacteria and virus plus all vapours including nerve, blood, choking and blister agents and toxic industrial materials.

## C50 Technical Data

CBRN Agent Resistance	Requirement	C50 performance
Mustard (H) / Sarin (GB) Soman (GD) / VX	36 hours	Greater than 36 hours
Laboratory protection factor performance (sodium chloride)	2,000	Greater than 10,000
Re-breathed CO <sub>2</sub>	Less than 1%	0.8%
Inhalation resistance at:		
30 l/min	5 mm WG	3 mm WG
95 l/min	15 mm WG	13 mm WG
160 l/min	25 mm WG	23 mm WG
Exhalation resistance at 160 l/min	30 mm WG	15 mm WG
Mask weight	N/A	490 grams
NIOSH Visual Field Score (VFS)	90	96



## C50 Twin Filter Port Mask

Description	Part Number
C50 Mask Assembly Twinport RH LGE	70501/187
C50 Mask Assembly Twinport RH MED	70501/188
C50 Mask Assembly Twinport RH SML	70501/189



## C50 Single Filter Port Mask

C50 Mask Assembly RH LGE	70501/193
C50 Mask Assembly RH MED	70501/194
C50 Mask Assembly RH SML	70501/195
C50 Mask Assembly LH LGE	70501/199
C50 Mask Assembly LH MED	70501/200
C50 Mask Assembly LH SML	70501/201



## C50 Twin Filter Port Mask

C50 CE Mask Assembly Twinport LGE	70501/562
C50 CE Mask Assembly Twinport MED	70501/563
C50 CE Mask Assembly Twinport SML	70501/564

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### Industry Certified Protection Factors

NATO standard protection factors give reassurance that the mask has been rigorously tested to optimum levels. NIOSH CBRN approved TC-14G-0285. NIOSH approved 42 CFR 84 CS/CN/P100 TC-149-0278.



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The C50 respirator falls within the definition of Significant Military Equipment in the United States Munitions List, International Traffic in Arms Regulations and may only be supplied outside of the United States of America to customers who are licensed by the US Department of State, Directorate of Defense Trade Controls.



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