

# M50

JSGPM. PROTECTING TODAY'S WARFIGHTER  
WITH TOMORROW'S TECHNOLOGY.



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Avon Protection Systems, Inc. is a leader in the development and manufacture of respiratory protection products for use in Chemical, Biological, Radiological and Nuclear (CBRN) applications.

The M50/JSGPM (Joint Services General Purpose Mask) has been selected by the U.S. Department of Defense to replace existing respiratory protective masks used by several branches of the military.

The M50 provides outstanding protection from battlefield concentrations of CB agents, toxic industrial materials, toxic chemicals and particulate matter. The streamlined design offers unique twin conformal filters for low breathing resistance and reduced burden, excellent weapons integration and balanced weight distribution.

The M51 variant has been specifically designed for combat vehicle operators. Consisting of the M50 mask in conjunction with a CVC hood for head and neck protection (constructed from Gore Chempak™ barrier technology), a communication lead and hose to integrate with vehicle blowers and COLPRO systems.



## M51

### Unique Visor Technology

- Unique polyurethane visor is highly flexible plus scratch and impact resistant
- 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
- Laser outserts for protection against specific wavelengths



- Heat build up minimized
- Low inhalation resistance
- Low re-breathed carbon dioxide
- Excellent de-mist properties

### Air Flow Management

## User Benefits

- Available in 3 sizes
- Chlorobutyl rubber silicone blend giving the mask a high degree of flexibility and comfort for extended use
- Unique twin low profile conformal filters
- Unique head harness eliminates pressure points for a more comfortable fit
- Advanced reflex seal for helmet compatibility
- Extended chin flap for garment compatibility with JSLIST suits
- High flow fail safe drinking device enables connection to a canteen or bladder type system
- Second-skin hood/mask interface allows mask to integrate with the Gore Chempak™ material protective hood
- Minimal replacement parts for simple maintenance

## Communications

- Provides clear communication while wearing mask
- Electronic Communication Port (ECP) allows an Audio Amplifier to be safely connected in a CBRN environment to an internal microphone.
- Additional communication systems can be attached via this ECP using an appropriate lead.



- Twin filter design significantly reduces breathing resistance and improves weight distribution
- Bayonet fit provides quick and efficient filter attachment
- Filters can be replaced without breaking the protective seal through self sealing valves
- Conformal filter technology improves integration with equipment

## Filtration

# M50 Mask Specifications

CBRN Agent Resistance		M50 Performance	Breathing Performance		
Mustard (H) Sarin (GB) Soman (GD) VX		Greater than 36 Hrs	Re-breathed CO <sub>2</sub>		0.8%
			Inhalation Resistance at:	Mask Only:	Mask & Filters:
			30 L/Min 95 L/Min 160 L/Min	2 mm WG 8 mm WG 12 mm WG	10 mm WG 30 mm WG 64 mm WG
Laboratory Protection Factory Performance (Sodium Chloride)		Greater than 10,000	Exhalation Resistance at:		7 mm WG 12 mm WG
			85 L/Min 160 L/Min		
Weight		Field of View			
M50 mask (including twin filters)		1.9 lbs.	Visual Field Score – NIOSH CBRN APR Standard		96

## M50 Filter Performance

a. Nerve Agents		b. Blister Agents		c. Blood Agents		d. Riot Control Agents	
"G" Series		Mustard		Hydrogen Cyanide		CS	
"V" Series		Lewisite		Cyanogen Chloride		CN	
Any thickened form of agent		Any thickened form of agent		Chloropicrin		OC (Pepper Spray)	
NIOSH CBRN Test Agent	Typical Performance	NIOSH CBRN Cap 1 Requirement		M50 Mask Assembly			
Cyclohexane	>20 mins	15 mins		Size	Part Number	NSN	
Hydrogen Cyanide (AC)	>45 mins	15 mins		Small	71050/3	4240-01-512-4431	
Cyanogen Chloride (CK)	>45 mins	15 mins		Medium	71050/2	4240-01-512-4434	
Phosgene	> 100 mins	15 mins		Large	71050/1	4240-01-512-4437	

The M50 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.

MADE IN AMERICA



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