



AIR PURIFYING RESPIRATOR

# JSGPM/M50

PROTECTING TODAY'S WARFIGHTER  
WITH TOMORROW'S TECHNOLOGY.

**AVON**  
PROTECTION



# JSGPM/M50



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 Technical Data

The M50 has been designed to be compliant with the latest US and NATO military CBRN requirements. The following data gives a good indication of its performance.

### M50 Mask Performance

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%
Laboratory Protection Factory Performance (Sodium Chloride)	Greater than 10,000	Inhalation Resistance at: 30 L/Min 95 L/Min 160 L/Min	Mask Only: 2 mm WG 8 mm WG 12 mm WG Mask & Filters: 10 mm WG 30 mm WG 64 mm WG
<b>Weight</b>		Exhalation resistance at: 85 L/Min 160 L/Min	7 mm WG 12 mm WG
M50 mask (including twin filters)	1.9 lbs (860 grams)		

### M50 Filter Performance

The M50 filter canister protects the wearer against all chemical and biological agents in aerosol, liquid and vapour form including:

#### Field of View

Visual Field Score – NIOSH CBRN APR Standard

96

#### a. Nerve Agents

"G" Series	Mustard
"V" Series	Lewisite
Any thickened form of agent	Any thickened form of agent

#### M50 Mask Assembly

Description	Part Number	NSN
M50 Mask Assembly LGE	71050/1	4240-01-512-4437
M50 Mask Assembly MED	71050/2	4240-01-512-4434
M50 Mask Assembly SML	71050/3	4240-01-512-4431

#### c. Blood Agents

Hydrogen Cyanide  
Cyanogen Chloride  
Chloropicrin

#### d. Riot Control Agents

CS  
CN  
OC (Pepper Spray)

#### NIOSH CBRN Test Agent

#### Typical Performance

#### NIOSH CBRN Cap 1 Requirement

Cyclohexane	>20 mins	15 mins
Hydrogen Cyanide (AC)	>45 mins	15 mins
Cyanogen Chloride (CK)	>45 mins	15 mins
Phosgene	>100 mins	15 mins

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.

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