



CBRN Ultra Elite[®] Gas Mask

*Setting a New Standard for
the Fire Service*



Two Protection Levels:

Firefighters typically are the first to respond to any incident whether it is a residential fire, an accident or any unknown threat that is becoming more common in today's world.

MSA was the first manufacturer to receive NIOSH's CBRN approval on an SCBA and the first to receive CBRN approval on a Gas Mask. MSA's FireHawk® Air Mask provides the maximum level of protection for CBRN environments.

However, that protection is not always needed, especially outside the immediate fire scene. Once the hazard has been assessed, air-purifying respirators (APR) may make the most sense for low concentrations of certain contaminants.

One Platform:

With the new Ultra Elite CBRN Gas Mask, your department benefits from using a common platform facepiece for both APR and SCBA applications, allowing standardized training and eliminating redundant fit-testing.

Dedicated Use:

Although the SCBA and APR facepieces share a common sealing surface and common fit test, they also have design differences to meet the specific needs of their individual applications. The harsh environment of routine firefighting may degrade an SCBA facepiece. Although this normal wear from daily use will not affect the protection afforded by a positive-pressure SCBA, it may not be suitable in a chemical warfare environment when converted to a negative-pressure APR device.

For this reason, the MSA CBRN Ultra Elite Gas Mask is designed for dedicated use as an air-purifying respirator only and cannot be mistakenly interchanged with an SCBA. This helps ensure that firefighters have the right level of protection, in the right condition, when they need it.



CBRN Performance:

The following table shows the NIOSH challenge concentrations and maximum allowable breakthrough concentrations specified in the NIOSH 15 minute CBRN test.

The first two agents, Sarin (GB) and Mustard (HD), were chosen to be representative of chemical warfare agents. The last 10 chemical agents listed in the table were chosen by NIOSH to represent 151 Toxic Industrial Materials (TIMs). Thirteen biological and 16 radiological contaminants were identified by NIOSH as particles, which are captured by the P100 filter in the canister.

The chemical concentrations specified in the NIOSH test are more than three times their IDLH level. Although a gas mask should never be used at these concentrations, NIOSH tested at these high concentrations to enable a practical duration test (15 minutes). In actual use, the breakthrough time of the canister would be significantly longer with a much lower concentration of contaminant.

MSA provides a tool to *calculate your canister life* for the contaminant levels measured *in your environment*. This canister service time calculator can be found at <http://www.msanet.com/calculator>.

Canister Test Challenge and Test Breakthrough Concentrations*

	Test Concentration (ppm)	NIOSH Allowable Breakthrough*
HD-Vapor	50 mg/m ³	3 mg/m ³
GB	210 mg/m ³	1.05 mg/m ³
Ammonia	2500	12.5 ppm
Cyanogen chloride	300	2 ppm
Cyclohexane	2600	10 ppm
Formaldehyde	500	1 ppm
Hydrogen cyanide	940	4-7 ppm ¹
Hydrogen sulfide	1000	5 ppm
Nitrogen dioxide	200	1 ppm NO ² or 25 ppm NO ²
Phosgene	250	1.25 ppm
Phosphine	300	0.3 ppm
Sulfur dioxide	1500	5 ppm

1. Sum of HCN and CaN₂.

2. Nitrogen Dioxide breakthrough is monitored for both NO₂ and NO. The breakthrough is determined by which quantity, NO₂ or NO, reaches breakthrough first.

* Table 3 from "Statement of Standard for Chemical, Biological, Radiological and Nuclear (CBRN) Full Facepiece Air Purifying Respirator (APR)," revision 1; March 17, 2003.

Safety

- Super-soft black Hycar rubber exceeds the CBRN permeation requirements
- Large lens with 83% unimpeded vision
- Centrally located inlet port for secure, comfortable fit and feel
- Centrally located mechanical speaking diaphragm for clear communications
- Optional ClearCommand® Amplifier for increased communication capabilities

Simplicity

- Available with a 5-point rubber or Speed-ON® head harness
- Identical sealing surfaces for both SCBA and Gas Mask facepieces – eliminating the need for redundant fit testing
- Simplified respiratory protection training program

Reliability

- The Ultra Elite facepiece is fire-service proven, with over a decade of trusted use
- MSA has been making gas masks since World War I
- Largest supplier of gas masks to the law enforcement market



The Ultra Elite Gas Mask is not limited to CBRN applications. With the use of the GME-P100 Canister or the Twin-Cartridge Adapter and GME-P100 cartridges, it is perfect for overhaul applications as well.



Ordering information

Description	Part Number
Gas Mask Facepiece with Head Harness	
Ultra Elite Hycar Gas Mask with rubber Head Harness, Small	10052776
Ultra Elite Hycar Gas Mask with rubber Head Harness, Medium	10052781
Ultra Elite Hycar Gas Mask with rubber Head Harness, Large	10052778
Ultra Elite Hycar Gas Mask with Speed-On Head Harness	
Ultra Elite Hycar Gas Mask with Speed-On Head Harness, Small	10052780
Ultra Elite Hycar Gas Mask with Speed-On Head Harness, Medium	10052779
Ultra Elite Hycar Gas Mask with Speed-On Head Harness, Large	10052777
Canisters & Cartridges	
CBRN Canister	10046570
GME-P100 Canister	10024847
Twin-Cartridge Adapter	803622
GME P-100 Cartridges (for use with Twin Cartridge Adapter)	815182
Accessory Items	
ClearCommand	
Amp	10024074
Amp / RI	10051290
Bracket Only	10023055
Butyl Hood	305022
Cover Lens	
Clear	491500
Tinted	805456
Storage Devices	
Pouch	10034184
Case	D2056734

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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