



SURVIVAIR OPTI-FIT™ CBRN GAS MASK

Full Facepiece Air Purifying Respirator (APR)

Product Specification Sheet

I. Purpose

To establish a minimum performance requirement for a CBRN full facepiece air purifying respirator (APR).

II. Type

Full facepiece APR Gas Mask with chin-mounted canister that includes integrated P100 filter in addition to the required chemical warfare agent and Toxic Industrial Chemical / Toxic Industrial Material as defined in NIOSH CBRN Statement of Standards.

III. Approvals

A. The device shall be certified by the National Institute for Occupational Safety and Health (NIOSH) under the CBRN Statement of Standard for Full Facepiece Air Purifying Respirator (APR) as “CBRN Agent Approved” for use in chemical, biological, radiological, and nuclear (CBRN) environments.

B. The device shall meet all the requirements of the NIOSH CBRN APR standard, CAP 1 rating.

IV. General Features

A. The facepiece shall be constructed of durable materials.

B. The facepiece shall have field-replaceable components throughout.

C. The facepiece skirt contacting the face of the user shall be made from butyl rubber to pass CBRN test criteria while providing both comfort and durability.

V. CBRN Canister

A. The facepiece shall have the ability to mount the canister in one of three positions. The three canister mounting locations shall be: left side, right side, and a center mounting position.

B. The canister interface to the mask shall be DIN-threaded 40 mm connection.

C. The canister shall have an anodized aluminum housing. It shall be black in appearance (without a coating). This canister shall provide respiratory protection against gases and vapors associated with Nuclear, Biological and Chemical (NBC) incidents, e.g. Sarin gas and CS/CN. In addition, the canister shall have a High

Efficiency Particulate Air (HEPA) filter built in to protect against dusts, mists, fumes and other airborne particulates that are 0.3 microns in diameter or larger. This canister shall be individually packaged in a foil pouch and shall have a screw cap covering the exhalation area and a plug covering the inhalation area. This canister shall have a 10 year expiration date from the date of manufacture.

VI. Lens

- A. The facepiece shall contain a replaceable, non-shatter-type, polycarbonate, conical-shaped lens located to provide a satisfactory field of vision.
- B. The lens shall be coated on the outside and inside surfaces to help prevent abrasion.
- C. The lens shall be secured in the facepiece by a durable plastic retainer.
- D. The lens shall be designed for application of an anti-fog compound.
- E. The lens shall be optically correct Anti-Scratch ANSI Z87.1-2003 polycarbonate lens to provide distortion free visibility, optical clarity and high impact resistance with:
 - Field of view per EN136 standard, single lens = overlap 96% min., effective 87% min.
 - Visual Field Score (VFS) per NIOSH CBRN test = 105 or higher (95% of full score of 110)

VII. Nose Cup

- A. The facepiece shall have a removable nose cup. The nose cup shall be able to be removed and re-installed without the need for any special tools. The nose cup shall be available in three sizes (small, medium, large), and shall be interchangeable.
- B. The design shall allow air to enter the facepiece in a manner that will reduce the possibility of moisture accumulation on the lens.
- C. The nose cup shall contain an easily removable exhalation valve designed for easy cleaning.

VIII. Straps

- A. The facepiece shall employ an adjustable 5-strap silicone rubber headband assembly held in place by buckles designed to prevent inadvertent loosening.
- B. All straps shall be attached to the rim of the facepiece, rather than the butyl skirt, to reduce distortion of the sealing surface when tightened.
- C. Head strap buckles shall be operable with a single hand (tightening and loosening).

IX. Drink Tube

- A. The facepiece shall be available with or without a drink tube.

X. Audio Transmission

- A. The facepiece shall provide exceptional audio transmission without a speaking diaphragm.
- B. The facepiece shall provide exceptional audio transmission without an electronically amplified audio device.

XI. Corrective Lenses Accessory

- A. The mask shall have provision for mounting corrective lenses inside the facepiece.
- B. The corrective lens kit shall not require tools for installation.