

# 3M™ Full Facepiece FR-M40B And 3M™ Canister FR-15-CBRN



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**Planning, Protection, Peace Of Mind**

**3M** *Innovation*

# The New CBRN Standard Is Tough. Only The Best Get Approved



## NIOSH's Chemical, Biological, Radiological, Nuclear (CBRN) Certification Standard For Full Facepiece Air Purifying Respirators

Introducing the new certification standard for First Responders. The 3M™ Full Facepiece FR-M40B and the 3M™ Canister FR-15-CBRN meet the new NIOSH standard for CBRN applications\* and deliver confidence and reliability from 3M. It provides a comfortable, efficient, and reliable solution when it's most important—when lives are at stake.

This lightweight CBRN system has been tested by NIOSH against the most common warfare agents including sarin, mustard and numerous industrial chemicals, and meets the P100 particulate filtration efficiency standard, making it one of the most versatile pieces of equipment for First Responders.

The dual ocular lenses offer a wide field of vision for increased wearer comfort and safety so Responders can have excellent visual capabilities. Voice communication is made clearer with two integral speaking diaphragms.

3M™ Safety Products have been an integral part of First Responders' overall preparedness for decades. Responders have depended on our technology, service and support around the world and in the U.S. at various times including Mount St. Helens, Oklahoma City, 9/11, the Anthrax scare, SARS and even as recently as the 2003 California wildland fires. This new 3M™ Full Facepiece FR-M40B and the 3M™ Canister FR-15-CBRN are state of the art quality you can depend on.

\* The OSHA standard for Hazardous Waste Operations and Emergency Response (HAZWOPER), 29 CFR 1910.120, states that Level C personal protective equipment (including air purifying respirators) may only be used in areas where lesser levels of skin and respiratory protection are required.

### 3M™ Full Facepiece FR-M40B and 3M™ Canister FR-15-CBRN Shown With Optional 3M™ Quick Doff Hood FR-M40-3

System includes the 3M™ Full Facepiece FR-M40; 3M™ Eyepiece Outsert, Clear FR-M40-1; 3M™ Second Skin, Small FR-M40-5 or 3M™ Second Skin, Medium/Large FR-M40-6; and 3M™ Canister FR-15-CBRN. 3M™ Spectacle Kit FR-M40-4, 3M™ Eyepiece Outsert FR-M40-2 Gray and 3M™ Quick Doff Hood FR-M40-3 can be ordered separately. **Quick Doff Hood not required for CBRN certification.**



For more information please access 3M web site [www.3M.com/occsafety/html/techdata.html](http://www.3M.com/occsafety/html/techdata.html) for *Technical Data Bulletin Number 159: Recommended Use of CBRN Full Facepiece Air Purifying Respirators.*

## NIOSH CBRN Test Challenge And Test Breakthrough Concentrations

Agent	Test Concentration (ppm)	Breakthrough Concentration (ppm)
Ammonia	2500	12.5
Cyanogen Chloride	300	2
Cyclohexane <sup>1</sup>	2600	10
Formaldehyde	500	1
Hydrogen Cyanide	940	4.7 <sup>2</sup>
Hydrogen Sulfide	1000	5.0
Nitrogen Dioxide	200	1ppm NO <sub>2</sub> or 25 ppm NO <sup>3</sup>
Phosgene	250	1.25
Phosphine	300	0.3
Sulfur Dioxide	1500	5

<sup>1</sup> Cyclohexane is representative of all organic vapors with a vapor pressure less than or equal to cyclohexane.

<sup>2</sup> Sum of HCN and C<sub>2</sub>N<sub>2</sub>

<sup>3</sup> Nitrogen Dioxide breakthrough is monitored for both NO<sub>2</sub> and NO. The breakthrough is determined by which chemical, NO<sub>2</sub> or NO, reaches breakthrough first.

As a "Cap 1" approved canister, the FR-15-CBRN is tested by NIOSH to have a minimum test life of 15 minutes against contaminants and concentrations shown in the table. Gas life tests are performed at 25° C; 25 and 80 percent relative humidity; and a flow rate of 64 liters per minute. The canister also has a minimum service life of 5 minutes when tested at a flow rate of 100 liters per minute, 50 percent relative humidity and 25° C for each of the gases/vapors in the table. Service life in actual use may be shorter or longer depending on many factors including contaminant concentration.

# Peace Of Mind Means Everything. Go With 3M Reliability And Experience

## You Can Rely On 3M

3M stands behind its products and provides all the services you need to make our products your best personal safety investment.

Looking for experience? The M-40 Full Facepiece has been used for years by U.S. Armed Forces all around the world. It has been modified by 3M for easier breathing and is now available for CBRN applications.

Soft silicone face seal material means a better fit and increased wearer comfort.

Assembled with second skin and eyepiece outserts in place. Just attach the 3M™ Canister FR-15-CBRN and you have a CBRN-approved system.

Two integral speaking diaphragms allow clearer communications.

Drinking tube connection for use in non-contaminated areas.



Butyl rubber second skin provides enhanced permeation protection, which means greater user security.

Dual ocular lens for enhanced personnel performance and security.

Patented filtration technology used in our canister results in the optimum combination of easy breathing, lighter weight, service life and general comfort.

Canister can be mounted on either side of the facepiece for easier, more accurate weapon sighting.

Canister has a shelf life of 5 years.

## 3M™ Health And Safety Services:

**Offering On-Line Solutions To Help CBRN Personnel  
Be Better Prepared For Emergencies**

### Medical Evaluations

3M recommends that employers provide a respirator medical evaluation to persons who may be required to perform duties in CBRN environments. 3M offers an On-Line Respirator Medical Evaluation Service which allows respirator users to quickly complete an interactive OSHA medical questionnaire using any computer with internet access. Results are provided immediately. This is a low cost, easy-to-use method to have employees evaluated and prepared to respond prior to an emergency.


### 3M™ Respiratory Protection e-Training

3M Respiratory Protection e-Training is an on-line, interactive service that uses the latest techniques to maximize learning. It is customizable and allows access to training records, training curriculum and test results at any time. It is a standardized training method that meets OSHA, NIOSH and ANSI requirements.

For additional information on either of these services, please visit [www.respexam.com](http://www.respexam.com) or call 1-800-383-3393.



Part # / UPC # / Stock ID #	Product Description	Qty/Case
FR-M40-1 / 0 00 51138 76735 8 / 70-0708-9077-0	Eyeiece Outsert, Clear	2 Each
FR-M40-2 / 0 00 51138 76736 5 / 70-0708-9078-8	Eyeiece Outsert, Gray	2 Each
FR-M40-3 / 0 00 51138 76738 9 / 70-0708-9080-4	Quick Doff Hood	1 Each
FR-M40-4 / 0 00 51138 76737 2 / 70-0708-9079-6	Spectacle Kit	1 Each
FR-M40-5 / 0 00 51138 76733 4 / 70-0708-9075-4	Second Skin, Small	1 Each
FR-M40-6 / 0 00 51138 76732 7 / 70-0708-9074-7	Second Skin, Medium/Large	1 Each
FR-M40-10 / 0 00 51138 76728 0 / 70-0708-9070-5	Full Facepiece, Small	1 Each
FR-M40-20 / 0 00 51138 76729 7 / 70-0708-9071-3	Full Facepiece, Medium	1 Each
FR-M40-30 / 0 00 51138 76730 3 / 70-0708-9072-1	Full Facepiece, Large	1 Each
FR-M40B-10 / 0 00 51131 52989 2 / 70-0710-9296-2	Full Facepiece CBRN, Small	1 Each
FR-M40B-20 / 0 00 51131 91511 4 / 70-0710-9292-1	Full Facepiece CBRN, Medium	1 Each
FR-M40B-30 / 0 00 51131 91512 1 / 70-0710-9293-9	Full Facepiece CBRN, Large	1 Each
FR-15-CBRN / 0 00 51131 52991 5 / 70-0710-9297-0	CBRN Canister	4 Each

<b>⚠ WARNING</b>	
	<p>This respirator helps reduce exposure to certain airborne contaminants but does not eliminate exposure or the risk of contracting disease or infection. <b>Misuse may result in sickness or death.</b> For proper use, see supervisor or <i>User Instructions</i>, or call 3M Technical Service at 1-800-243-4630. In Canada, call 1-800-267-4414.</p> <ul style="list-style-type: none"> <li>The 3M™ Eyeiece Outsert, Clear FR-M40-1 or 3M™ Eyeiece Outsert, Gray FR-M40-2; and 3M™ Second Skin, Small FR-M40-5 or 3M™ Second Skin, Medium/Large FR-M40-6 must be used with the facepiece FR-M40 in order to have a CBRN-approved system. Failure to use the eyeiece outserts and second skin may result in permeation of warfare agents through the facepiece and <b>may result in sickness or death.</b></li> <li>The OSHA standard for Hazardous Waste Operations and Emergency Response (HAZWOPER), 29 CFR 1910.120, states that Level C personal protective equipment (including air purifying respirators) may only be used in areas where lesser levels of skin and respiratory protection are required.</li> </ul>

## 3M Worldwide, World Class

3M develops, manufactures and markets over 50,000 different consumer, commercial, industrial and health care products. We have manufacturing operations in 60 countries and do business in more than 200 countries. 3M can help you achieve corporate goals, meet and exceed government standards, simplify and improve the lives of your employees, and contribute to a safe, healthy and sustainable work environment.

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Brochure pdf# 253449

Printed in USA  
© 3M, April 2004

70-0710-9370-5(443)JR