

THE BIOSENSOR™ 2200R BIOLOGICAL AGENT DETECTOR

Five minute time-to-answer white powder analysis.



MSA
The Safety Company™



Portable, handheld biohazard detection instrument for first responders.



On-site portable analysis offering:

- ➔ Rapid Detection
- ➔ Ease of Use
- ➔ Excellent Sensitivity
- ➔ 1 in 1,000,000 False Positives

The new BIOSENSOR 2200R Biological Agent Detector from MSA is a handheld, portable, on-site instrument for rapid detection, analysis, and identification of biological agents. Unique bioassay technology offers excellent sensitivity and low false positives while offering ease of use during white powder response calls. This highly accurate detection method provides rapid measurement of biohazards such as anthrax, ricin, botulism, SEB, and plague.

Exclusive five minute time-to-answer allows first responders to make informed critical decisions more rapidly than any other biological agent detector. The BIOSENSOR 2200R employs dynamic surface generation, a patent pending type of immunoassay detection technology. This technology offers significant advantages over other field-based assay methods by combining the benefits of both the free solution and lateral flow types. The result is more rapid analysis, a user-friendly format, and detector stability within a wide range of climates.

Both wet and dry samples may be tested and results are displayed with a simple red (target present) or green (no target present) indication. As tests are non-destructive, samples may be retained as evidence. Single-test, disposable cartridges with on-board reagents have a 12-month shelf life. This instrument is permanently housed in a sturdy, lightweight Pelican case.



The MSA BIOSENSOR 2200R Biological Agent Detector has an established track record in real-world applications and has been subject to successful

third-party testing by the University of Alabama at Birmingham and New York State Department of Health.



Instrument features and benefits:

- ➔ 5 minute time-to-answer
- ➔ Uses positive and negative control cartridges
- ➔ Battery-operated with ability to run 50 tests on a single charge
- ➔ Fully deconable housing; IP67 rated
- ➔ Visual and audible alarms provide clear indication of status
- ➔ Extremely easy to use with a training time of one hour
- ➔ Integrated RFID (radio frequency identification) for automatic cartridge recognition

Targets:

- ➔ Anthrax/ricin duplex—one test, two agents
- ➔ Anthrax
- ➔ Ricin
- ➔ SEB (staphylococcal enterotoxin B)
- ➔ Botulism*
- ➔ Plague*
- ➔ Smallpox*
- ➔ Tularemia*
- ➔ Cholera*
- ➔ West Nile virus*

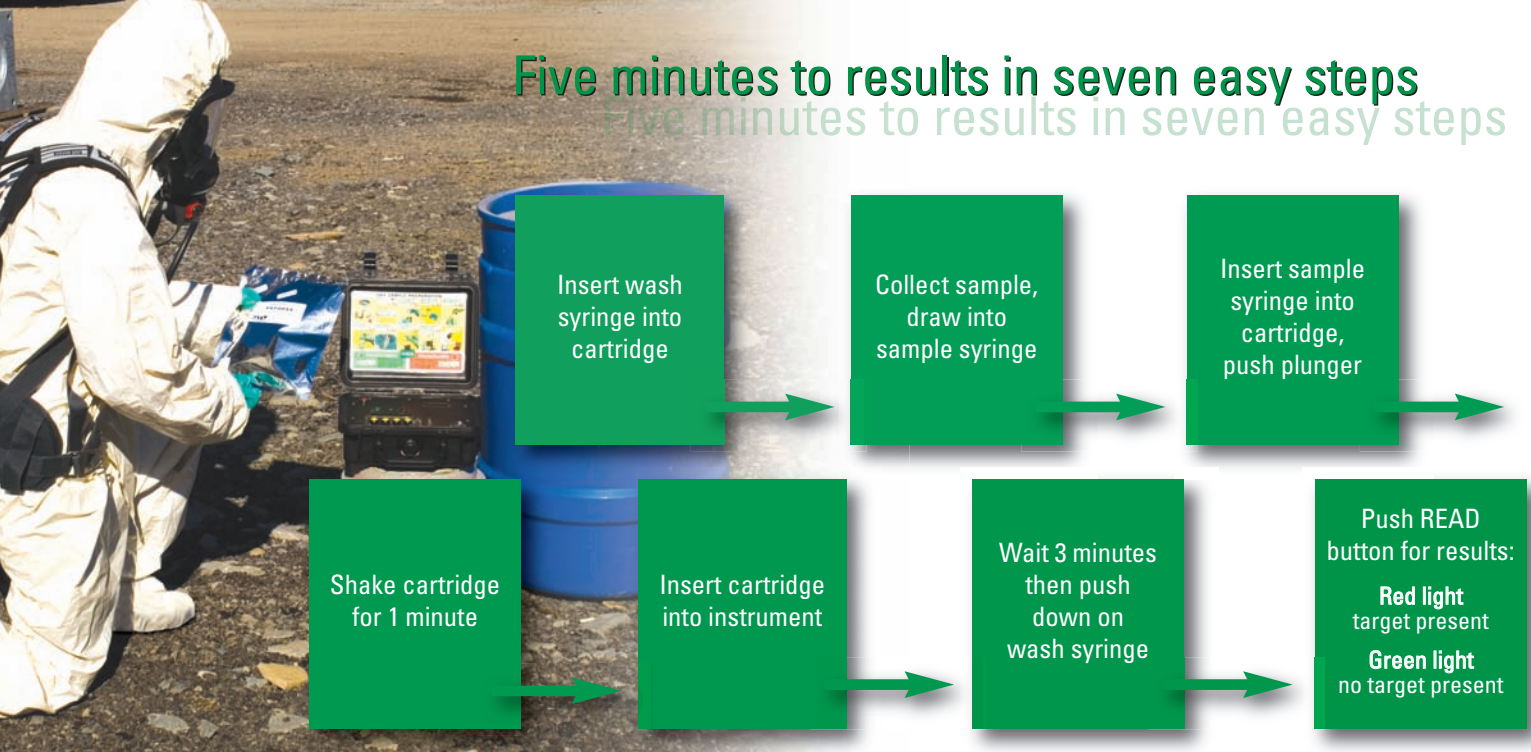
**additional agents in development*

BIOASSAY TECHNOLOGY		
<p>1. MIX Sample is mixed with the Sensing Solution.</p>		<p>The Bioassay incorporates highly fluorescent particles in the assay that have superior brightness relative to many commercially available materials.</p>
<p>2. BIND Sensing materials bind to target during incubation.</p>		<p>Several Bioassays incorporate proprietary antibodies that show high binding along with superior specificity relative to their commercially available counterparts.</p>
<p>3. MAGNETIZE All bound and unbound magnetic material is pulled to surface.</p>		<p>This step effectively concentrates the sample for subsequent detection.</p>
<p>4. WASH All remaining sensing and non-target material is washed away.</p>		<p>False positives are virtually eliminated by removing potential interferants from the sample solutions.</p>
<p>5. READ Concentrated sample (pellet) is illuminated and emits a signal if target is present.</p>		<p>The exclusive patent pending Dynamic Surface Generation technology effectively binds, concentrates and isolates the sample before detection - resulting in superior sensitivity to other immunoassays.</p>

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Five minutes to results in seven easy steps



Specifications

Assay Type	Immunoassay
Time to Answer	5 minutes
Operating Range	36 - 104° F (2 - 40° C)
Sensitivity	Anthrax < 10,000 spores Ricin < 1 ng SEB < 1 ng
Features	Wet or dry samples Positive and negative control cartridges Non-destructive test, sample is retained Automatic cartridge identification using RFID Chemistries can be integrated to detect other bio-agents One hour training
Performance Testing	University of Alabama at Birmingham (UAB) New York State Department of Health (NYDOH)
Weight	7 lbs (2.7kg)
Size	11" x 10" x 5" (27 x 25 x 14 cm)
User Interface	LCD screen, 4 button interface On-screen operation instructions Visual and audible alarms
Housing	Fully decon-able, waterproof, dustproof, IP 67 certified
Power	Battery (50+ tests) and AC or vehicle supply
Data Storage	50 test results including: target type cartridge serial #
Connectivity	Serial port

Ordering Information

Part Number	Description
10084834	MSA BIOSENSOR 2200R Biological Agent Detector Kit, includes carry case, charger, cartridge starter kit (10084758), instruction manual, and quick start guide.

*Extended warranties available.

BIOSENSOR Cartridge Plans

Part Number	Description
10084758	MSA BIOSENSOR cartridge starter kit includes 3 Anthrax/Ricin dual kits*, 1 Anthrax, 1 Ricin, 3 positive control, 2 negative control cartridges, and 2 wet sample kits
10084753	MSA BIOSENSOR Low volume cartridge plan includes 6 Anthrax/Ricin dual kits*, 2 Anthrax, 2 Ricin, 6 positive control, 2 negative control cartridges, and 2 wet sample kits
10084754	MSA BIOSENSOR Medium volume cartridge plan includes 24 Anthrax/Ricin dual kits*, 6 Anthrax, 6 Ricin, 24 positive control, 6 negative control cartridges, and 4 wet sample kits
10084755	MSA BIOSENSOR High volume cartridge plan includes 60 Anthrax/Ricin dual kits*, 8 Anthrax, 8 Ricin, 60 positive control, 8 negative control cartridges, and 6 wet sample kits.

*Each biohazard cartridge test kit includes a dry sample kit.

Please contact your local MSA rep for more information.

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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