

Prime Alert™

BIO-DETECTION AND THREAT VERIFICATION SYSTEM



Feature Highlights

- **On-site results in minutes**
- **Easy-to-use, versatile test kits**
- **Performs highly accurate, broad spectrum analysis**
- **Detects the presence of potentially life-threatening biological microbes and biotoxins**
- **Complimenting orthogonal technology provides the highest level of accuracy in field analysis**

Prime Alert is a field-proven, portable bio-detection system that screens unknown powder samples for suspicious levels of all microbes and key bio-toxins.

Prime Alert comprises a rugged, field portable, palm-size reader (a fluorometer) which can be decontaminated. It includes 5 individual sampling assay kits. The Microbe Screen tests for the presence of significant quantities of bacteria, bacterial spores and most viruses. The Toxin Screen tests for the presence of Ricin, Botulinum and SEB (Staphylococcal Enterotoxin B).

The system was designed in collaboration with first responders and law enforcement agencies and has been widely deployed globally. It contains all the sampling tools needed to rapidly verify potential biological threats in the field.

When confronted with potentially high threat suspicious powders, use of Prime Alert as an orthogonal technology to LATE PCR™ (Linear After the Exponential Polymerase Chain Reaction) and FT-IR (Fourier-Transform Infrared Spectroscopy) gives responders the highest level of confidence in their field analysis by providing critical information needed to manage public safety.

Prime Alert

Prime Alert is backed by first class service, training and support to ensure optimum product performance.

Smiths Detection is a leading worldwide provider of advanced security solutions and government regulated products to detect and identify chemical, biological, radiological and explosives (CBRNE) material and other dangerous or illegal substances.

- Anthrax
- Plague
- Tularemia
- Brucellosis
- Salmonellosis
- Cholera
- Typhoid Fever
- Q Fever
- Psittacosis
- Glanders
- Melioidosis
- New bacterial weapons

The Microbe Screen is able to identify significant presence of the microbes associated with the following diseases: The Toxin Screen is able to identify significant presence of 3 key Bio-Toxins:

- Ricin
- Botulinum
- SEB (Staphylococcal Enterotoxin B)

Smiths Detection is the sole, global distributor of Prime Alert. Prime Alert is manufactured by GenPrime Inc, a leading provider of advanced testing technologies.

Technical Data

General Specifications

Reader

Size	18 x 4 x 9cm (7.1 x 1.6 x 3.5 in)
Weight	425 g (15 oz)
Battery powered	6V 0.3W (uses four 1.5 V AAA batteries)

Microbe screen

Technology	Novel DNA-selective fluorescent dye technology
Size (W x H x D)	8 x 12 x 3cm (3.2 x 4.8 x 1.2in) for individual microbe screens
Weight	80g (3oz) for individual Microbe Screens
Power	Battery-operated reader (fluorometer)
Specificity	All bacterial and bacterial spores & many viruses
Sensitivity	1.1×10^5 to 2.2×10^6 cfu/mg depending on species
Calibration requirements	Manual calibration in less than 2 minutes
Response time	5 minutes, from sampling to data readout
Confidence interval for sensitivity	98%
Number of false positives	4%
Number of false negatives	0% at sensitivity threshold

Toxin screen

Technology	Lateral flow antibody system
Size (W x H x D)	3 x 8 x 0.5 cm (1.2 x 3.2 x 0.2in) for individual toxic screens
Weight	8g (0.2oz) for individual toxic screens

Power	N/A
Specificity	Separate tests for Ricin, Botulinum & SEB
Sensitivity	Ricin - (166 ng/mL) Botulinum Toxin A - (166 ng/mL) Botulinum Toxin B - (3333 ng/mL) SEB - (166 ng/mL)

Calibration requirements	N/A
Response time	10 minutes
Confidence interval for sensitivity	99%
Number of false positives	1%
Number of false negatives	0% at sensitivity threshold
Sampling tools	Spatulas, scoops & sampling forceps are included

For product information, sales or service, please go to www.smithsdetection.com/locations

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