

Global CBRNE Detection Technologies Market to Reach \$24.47 Billion at a Steady 5.9% CAGR by 2029

The Business Research Company's Global CBRNE Detection Technologies Market to Reach \$24.47 Billion at a Steady 5.9% CAGR by 2029

LONDON, GREATER LONDON, UNITED KINGDOM, November 13, 2025

/EINPresswire.com/ -- "Get 20% Off All Global Market Reports With Code

ONLINE20 – Stay Ahead Of Trade Shifts, Macroeconomic Trends, And Industry Disruptors

The Business
Research Company

The Business Research Company

How Large Will The CBRNE Detection Technologies Market Be By 2025?

The market size for detection technologies in the chemical, biological, radiological, nuclear, and explosive (CBRNE) sector has seen significant growth in recent years. Expected to expand from \$18.45 billion in 2024 to \$19.48 billion in 2025, it has a compound annual growth rate (CAGR) of 5.6%. Factors contributing to this growth in the past include concerns about nuclear proliferation, escalating threats from asymmetric warfare, a rise in accidents involving hazardous materials, more stringent regulations in the chemical industry, and an increased need for pandemic preparedness.

“

Expected to grow to \$24.47 billion in 2029 at a compound annual growth rate (CAGR) of 5.9%”

*The Business Research
Company*

The market for chemical, biological, radiological, nuclear, and explosive (CBRNE) detection technologies is predicted to experience significant expansion in the coming years, with projections estimating its value to reach \$24.47 billion by 2029, growing at a compound annual growth rate (CAGR) of 5.9%. This anticipated growth during the forecast period is linked to factors such as a rise in security investments for smart cities, increased chemical risks due to climate change, augmenting threat detection in space, the growth of biosecurity needs in the pharmaceutical sector, and an increase in the adoption of artificial intelligence (AI)-powered detection. Expected trends for the forecast period encompass advancements in nanosensor technology, the creation of autonomous detection drones, innovations in AI-based threat

analysis, the application of internet of things (IoT)-enabled monitoring systems, and the progression of wearable detection devices.

Download a free sample of the [cbrne detection technologies market report](https://www.thebusinessresearchcompany.com/sample.aspx?id=28975&type=smp):
<https://www.thebusinessresearchcompany.com/sample.aspx?id=28975&type=smp>

What Are The Major Driving Forces Influencing The CBRNE Detection Technologies Market Landscape?

The increasing uptake of cloud-based solutions is set to fuel the progress of the chemical, biological, radiological, nuclear, and explosive (CBRNE) detection technologies market in the near future. These solutions, which refer to software, services, or resources supplied and used via the internet and not installed locally on a user's device or on in-house servers, are gaining traction due to organisations necessitating scalable resources capable of rapidly adapting to variable workloads and business requirements. Cloud-based solutions boost CBRNE detection technologies by allowing real-time data gathering, centralized examination, and smooth data exchange between agencies for better threat detection and response. For instance, Microsoft Corporation, an American tech firm, reported in September 2025 that fast-tracking cloud adoption and updating IT infrastructure by a mere five years could let the Australian Government cut down on an average of \$1.4 billion per year, indicating a 13% decrease in overall IT spending. Consequently, the burgeoning uptake of cloud-based solutions is steering the evolution of the chemical, biological, radiological, nuclear, and explosive (CBRNE) detection technologies market.

Who Are The Top Players In The CBRNE Detection Technologies Market?

Major players in the CBRNE Detection Technologies Global Market Report 2025 include:

- Teledyne FLIR LLC
- Smiths Detection Group Limited
- Bruker Detection Corporation
- Honeywell International Incorporated
- Thales Group
- Rheinmetall Defence AG
- Leidos Holdings, Incorporated
- QinetiQ Group plc
- Drägerwerk Aktiengesellschaft & Compagnie Kommanditgesellschaft auf Aktien
- Saab Aktiebolag

What Are The Top Trends In The CBRNE Detection Technologies Industry?

Key players in the chemical, biological, radiological, nuclear, and explosive (CBRNE) detection technologies market are honing their focus on the production of handheld gamma spectrometers to boost the efficiency of on-site radiological threat detection. Handheld gamma spectrometers are compact devices capable of detecting and analyzing gamma radiation by gauging its energy spectra, facilitating the speedy identification of radionuclides and field assessments of potential radiological hazards. In May 2024, Kromek, a radiation detection firm

headquartered in the UK, introduced its latest RayMon handheld detector, equipped with exchangeable cadmium zinc telluride (CZT), sodium iodide (NaI), and alpha/beta probes to increase adaptability. Moreover, it has an internal library of 94 radionuclides, real-time dose rate and counts-per-second readouts, a search mode equipped with visual graphs to point users to radiation sources, and easy data export options through USB or email. The RayMon detector is tailored for use in the protection of critical infrastructure, homeland security, and emergency response efforts, enabling enhanced detection accuracy, versatile functionality in diverse radiation situations, and quicker, more knowledge-based decision-making processes in intricate environments.

Market Share And Forecast By Segment In The Global CBRNE Detection Technologies Market
The cbrne detection technologiesmarket covered in this report is segmented –

- 1) By Product Type: Portable Detection Devices, Fixed Detection Systems, Mobile Detection Platforms, Laboratory Equipment, Software Solutions
- 2) By Technology Type: Chemical Detection, Biological Detection, Radiological Detection, Nuclear Detection, Explosives Detection
- 3) By Detection Method: Optical Detection, Mass Spectrometry, Electrochemical Detection, Immunoassay Methods, Gas Chromatography
- 4) By Threat: Chemical Threat, Biological Threat, Nuclear Threat, Other Threats
- 5) By End-Use Industry: Defense And Military, Healthcare, Environmental Monitoring, Industrial Safety, Emergency Services

Subsegments:

- 1) By Portable Detection Devices: Handheld Chemical Detector, Wearable Radiation Sensor, Portable Biological Analyzer, Compact Explosive Identifier
- 2) By Fixed Detection Systems: Wall Mounted Chemical Sensor, Stationary Radiation Monitor, Fixed Biological Screening Unit, Permanent Explosive Detection Panel
- 3) By Mobile Detection Platforms: Vehicle Mounted Chemical Detector, Mobile Radiation Surveillance Unit, Biological Detection Rover, Explosive Detection Drone
- 4) By Laboratory Equipment: Chemical Analysis Apparatus, Radiological Testing Instrument, Biological Sample Analyzer, Explosive Forensic Kit
- 5) By Software Solutions: Threat Detection Software, Data Analysis Platform, Incident Management System, Simulation And Modeling Tool

View the full cbrne detection technologies market report:

<https://www.thebusinessresearchcompany.com/report/cbrne-detection-technologies-global-market-report>

CBRNE Detection Technologies Market Regional Insights

In the 2025 Global Market Report for CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) Detection Technologies, North America held the most substantial market share. However, it is projected that the Asia-Pacific region will experience the most rapid growth during

the forecast period. The report comprehensively covers various regions- Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa.

Browse Through More Reports Similar to the Global CBRNE Detection Technologies Market 2025,
By The Business Research Company

Cbrne Defense Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/cbrne-defense-global-market-report>

Industrial Metal Detector Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/industrial-metal-detector-global-market-report>

Contraband Detector Global Market Report Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/contraband-detector-global-market-report>

Speak With Our Expert:

Saumya Sahay

Americas +1 310-496-7795

Asia +44 7882 955267 & +91 8897263534

Europe +44 7882 955267

Email: saumyas@tbrc.info

The Business Research Company - www.thebusinessresearchcompany.com

Follow Us On:

• LinkedIn: <https://in.linkedin.com/company/the-business-research-company>"

Oliver Guirdham

The Business Research Company

+44 7882 955267

info@tbrc.info

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/866527618>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable

in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.