



indra

DEFENSE AND SECURITY

MOBILE CBRN LABORATORY

Defense and security in five continents

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MOBILE CBRN LABORATORY



Our laboratories use the latest technology to analyse and identify chemical, biological, and nuclear/radiological samples

Introduction

The ever-present threat of chemical, biological, radiological and nuclear (CBRN) attacks and warfare is now greater than ever. The development of CBRN arsenals by a number of countries, coupled with the increasing tendency of terrorist groups to use CBRN agents in their attacks, has brought home the need to adequately protect the general population from this menace. Critical infrastructures such as airports, underground stations, and railway hubs are likely targets for terrorist actions, and an attack on a large population centre could have devastating consequences.

In addition to terrorist and military CBRN threats, industrial activity often entails dangers for nearby population centres. An accident could easily generate a toxic cloud or contaminate the water supply to nearby populated areas, putting thousands of lives in danger.

An adequate response to a CBRN attack or incident must ensure that threats can be rapidly detected, the nature and scale of the threat can be identified, and appropriate protection and decontamination measures can be taken.

Indra Mobile Laboratories are suitable for onsite analysis of chemical, nuclear-radiological and biological compounds, ensuring that CBRN threats can be rapidly and accurately identified and dealt with. They allow operators to analyse and identify toxic and dangerous substances in the field, and can be used in military conflict as well as in the event of a terrorist attack or industrial incident.

Main technologies

Chemical laboratory

GC - MS + IMS,
Infrared spectrometry with FTIR
X ray fluorescence spectrometry
UV/Visible
Selective ion technology
Standard laboratory equipment

Biological laboratory

PCR
Immunological devices
ECL
Standard laboratory equipment

Nuclear - radiological laboratory

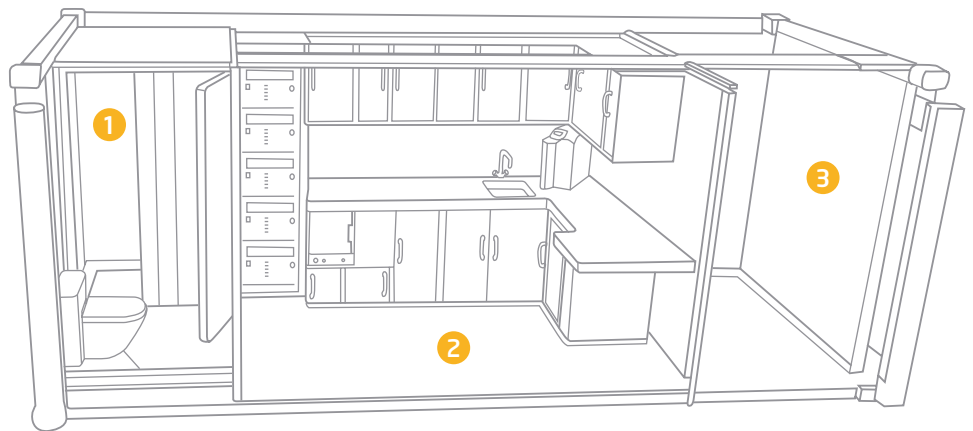
Alpha and Beta total activity
Germanium-refrigerated NaI Gamma spectroscopy
Alfa spectrometry
Portable radiological detectors
Scintillation liquid
Personal dosimeters
Standard laboratory equipment

The equipment listed enables the identification of volatile and non-volatile toxic and dangerous chemicals, including mid-spectrum chemicals from environmental samples and interaction products, radiological substances, and biological substances such as bacteria, viruses and toxins, always conforming to international regulations.

1 Entrance, decontamination and bathroom area

2 Identification and communications area

3 Technical area



Common characteristics

The mobile CBRN laboratory consists of the following key elements:

ISO standard mobile 20-foot container
Meets NATO standards
Built-in air ventilation and NBC (CBRN) protection system
• NBC filters with integrated alarm system
• Integrated cooling / heating
• Fume hoods / laminar cabinets for analysis
Integrated power system
• Generator
• Back-up battery system / UPS system

Water supply system
• Clean water
• Box for contaminated water

Decontamination systems
Analytical instruments
Sampling tools

Data handling, communication and security systems

The laboratory provides CBRN-protected operation space for sampling, analysing and reporting CBRN threats. The CBRN filtering systems guarantee a safe working environment and prevent any leaks to or from the surrounding environment.

The container is equipped with a decontamination shower for affected personnel.

The system includes all the necessary tools and devices to operate autonomously in the field for up to 72 hours.

The laboratory can be tailored to customer requirements, and can be presented in a single container covering all threats or one container for each type of threat (C, B, and R/N). The specific analytical devices required can be selected from a wide list of partners.



ISO 9001:2000



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