ORTEC

FoodGuard-2

HPGe workstation for quantitative determination of radionuclides in food

Complete workstation for measuring gamma-emitting radioactive contaminants in food, water and other agricultural samples after an accident or terrorist incident. With a high-resolution HPGe detector, every gamma-emitting radionuclide is quantified as specific activity in Bq/kg or Bq/litre. An administrator sets up sample types, alarm limits and reports, after which the operator just enters the sample information and starts counting.



Detector type
High-resolution HPGe detector [1]

Relative efficiency
20–60%; detector and cooling chosen when ordering [1]

Specifications

DETECTOR

Detector type	High-resolution HPGe detector	[1]
Sample geometry	2-litre Marinelli beakers; additional containers and geometries via selectable calibration files (new calibrations created with GammaVision)	[1]

PERFORMANCE

Relative efficiency	20–60%; detector and cooling chosen when ordering	[1]

ORDERING & ACCESSORIES

ptions	GammaVision (spectrum analysis), ANGLE (efficiency transfer between geometries) and Nuclide Navigator (nuclide database)	[2]

GENERAL

Results	Specific activity in Bq/kg or Bq/litre for every gamma-emitting radionuclide in the sample	[1]
Alarm	Configurable alarms when activity level, percentage or sum of activities is exceeded; editable limits tables derived from international standards (examples from e.g. the US FDA and WHO)	[1]
Reporting	Customizable reports in HTML and PDF format	[1]
Calibration	Supplied pre-calibrated with a ^{40}K check source	[1]
Cs-137 MDC	0.75 Bq/L in 10 minutes; 0.5 Bq/L in 30 minutes (20% detector, 2-litre Marinelli beakers of liquid; calculated using ISO 11929); lower with larger d etectors and longer count times	[2]

Sources

[1] **FoodGuard-2 High Resolution Germanium Gamma Spectroscopy Workstation**
ORTEC (AMETEK) · product-page · Overview; FoodGuard-2 System Configurations; Overview; More Information · checked 2026-10-16
https://web.archive.org/web/20261016000000/https://www.ortec-online.com/products/systems/food-monitoring-sys…

[2] **FoodGuard-2 High Resolution Germanium Gamma Spectroscopy Workstation (brochure)**
ORTEC (AMETEK) · brochure · p. 3, Minimum Detectable Concentration; p. 3, Options · checked 2026-10-16
https://edge.sitecorecloud.io/ametekinc1236b-ametekb19a-productiondcfa-1d17/media/Project/Ametek/ortec-onlin…

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.