

PRELIMINARY

Fast and reliable detection of radioactivity in food is achieved by the combination of a high performance handheld Gamma Personal Radiation Detector (PRD) and the portable Gamma Laboratory Kit.

Product Specification

RadEye PRD-S & Gamma Laboratory Kit

Portable solution for food monitoring applications



- Portable, robust system in a transport case
- Minimal investment required
- Simple step by step operator's guide included
- RadEye PRD-S also to be used as a sensitive handheld gamma detector
- Battery power supply supports field operation
- Data logger for 1000 sample measurements
- PC interface via Infrared or optional Bluetooth
- Add-on scaler mode for regular RadEye PRD available (firmware upgrade)

The portable Thermo Scientific Gamma Laboratory Kit and the RadEye PRD-S support the immediate requirements of the field assessment measurement program for contamination resulting from a nuclear accident.

The RadEye PRD-S gamma detector with its NaI(Tl) detector provides highly sensitive gamma measurements in a simple to use format.

The sample holder provides shielding from ambient radiation and an optimal counting geometry for the 180 ml samples.

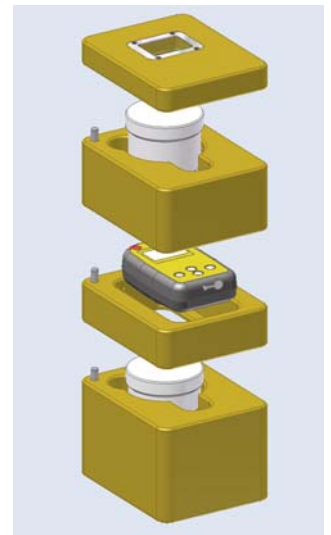
Measurement results are provided as gross gamma rates in counts per second (cps) unit. Conversion factors translating the 'cps' results into Bq/l are provided in reference to the

dominant elements (Iodine and Cesium) emitted by the Fukushima accident.

The system provides the capability to measure contamination levels for I-131 and Cs-134/137 to better than typical Derived Intervention Levels (DIL) in less than 5 minutes.

Additionally, the RadEye PRD-S can be used as an extremely sensitive handheld survey meter. Personal radiation protection, checking of parcels for radioactivity and quick scanning of travelers for I-131 incorporation (thyroid burden) are just some applications where the RadEye PRD-S delivers immediate and reliable measurement results.

The sample holder of the Gamma Laboratory Kit contains 4 shielding modules that provide 4 pi shielding. Two sample containers, each holding 90 ml, are placed in a sandwich configuration around the RadEye PRD-S for optimized response. The optional Thermo Scientific 9g Lutetium Test-Adapter provides the capability to perform QA checks on system operation.



3D assembly graphic

* Lu Test-Adapter positioning aid

Gamma Laboratory Kit (# 425069015)

Sensitivity

Typical Detection Limit*	140 Bq/l (Nucilde: I-131, measurement time 300 s)
Calibration Factor provided for	I-131, Cs-137, Cs-134

* Requires RadEye PRD-S or RadEye PRD-S-ER that is not included in the Gamma Laboratory Kit

Carrying Case

Dimensions (approx.)	H 310 mm, W 360 mm, D 200 mm
Total weight (approx.)	20 kg



RadEye PRD-S (# 425067130) / RadEye PRD-ER-S (# 425067135)

Detector

Detector Type	Na(I) Detector with μ -Photomultiplier
Operation Modes	Ratemeter (cps, Sv/h, rem/h, R/h), Scaler (cps)
Measuring Range (Ratemeter mode)	RadEye PRD-S: 0.01 μ Sv/h - 250 μ Sv/h RadEye PRD-ER-S: 0.01 μ Sv/h - 100 mSv/h
Measuring Range (Scaler mode)	max. 65000 counts
Gamma Energy Range	60 keV - 1.3 MeV (dose rate), excellent detection from 30 keV
Firmware PRD-S / PRD-ER-S	Upgrade from regular RadEye PRD / PRD-ER available



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