Measuring Radioactivity

Eurofins provides inspection and analyses of your import containers and materials.

Events in Japan have resulted in an urgent requirement to measure radioactivity on import containers to avoid exposing your members of staff to increased levels of radiation.

Our service range

Eurofins Product Testing GmbH, formerly Dr. Fintelmann und Dr. Meyer GmbH, provides a complete package of services including inspection and measurement of containers, and sampling and testing of goods.

1. Radiation measurement of container and packaging surface (Eurofins testcode JR0B8).

- Including measurement of all four sides of the container from a distance of 2 metres.
- Measurement of all four sides of the container from a distance of 1 metre.
- Measurement on the surface of all four sides of the container.
- Container is opened and measurements taken inside on the surfaces of all packages accessible from the door area.
- The level of radiation is determined by carrying out equivalent dose measurements using portable measurement devices such as Thermo RadEye PRD and Geiger-Müller counters.
- The equivalent dose rate measurement provides an indication of whether the cause of any increased radiation is the container itself or the goods inside.
- The surface of goods will also be measured for activity in Bq/cm^2. Results will be given for α-, β- as well as γ-radiation.

2. On request we can also take samples and carry out radioactivity testing of those material samples.

- Please quote **Eurofins testcode JCRCI** for material testing. Sample quantity should be at least 150 g.
- Please provide the following information: description of sample, batch number and country of origin. Labelling of hazardous materials according to GHS is obligatory.
- The material analysis will be performed by our partner laboratory Eurofins Contaminants GmbH in Hamburg, by *y*-spectrometry.
- You will receive results for activity in Bq/kg for the following isotopes; Cesium^{137}, Cesium^{134} as well as iodine^{131}.
- We recommend an analysis of one material sample for each batch when the quantity of packages is less than 30. Additionally, we recommend two material samples for batches with more than 30 packages. For batches with more than 50 packages three or more samples are recommended.

eurofins | Product Testing

Eurofins stands for

- Excellent service
- Accurate and timely results
- Technical consultation by highly qualified employees
- International presence currently in 30 countries
- Auditing by our customers
- Continuous performance control by internal quality management and participation in inter-laboratory comparisons.

Risk assessment

Surface activity (**Eurofins test-code JR0B8**) is considered as a ‚pass' when the results meet the following criteria:

- Dose rate is below 200 nSv/h,
- α -radiation is below 0.4 Bq/cm^2,
- The sum of β- and γ-radiation is below 0.2 Bq/cm^2.

A material analysis (**Eurofins test-code JCRCI**) is considered as ‚pass' when the measured activcity meets the following criteria:

- Cesium^{134} is below 10 Bq/kg,
- Cesium^{137} is below 10 Bq/kg,
- Iodine^{131} is below 10 Bq/kg.

Contact

Please contact us by phoning

+49 40 570 104 440

or by mailing

MatthiasFlemming@eurofins.de

We offer services tailored to your special requirements and provide individual solutions for your needs, such as performing our measurements outside of Hamburg as well as handling higher volumes of containers.

We offer 24 h service.

Your security is our focus

Eurofins
Consumer Product Testing GmbH
Mendelssohnstr. 15D
22761 Hamburg, Germany
Phone +49 40 570104 100
Fax +49 40 570 104 199
Mail ProductTesting-HH@eurofins.com

Matthias Flemming
Radiation Safety Supervisor
Phone +49 40 570 105 440
MatthiasFlemming@eurofins.de

Dr. Claus-Peter Kramer
Trade Chemist
Phone +49 40 570 104 400
ClausPeterKramer@eurofins.de