



The German Federal Institute for Risk Assessment (BfR) is the national institute which prepares expert reports and opinions on questions concerning the safety of food, feed and chemicals, as well as consumer health protection, on the basis of internationally recognised scientific evaluation criteria. It advises the Federal Government and other institutions and interest groups in these areas. The BfR conducts its own research on topics that are closely linked to its assessment tasks. It is an institution with legal capacity within the portfolio of the Federal Ministry of Food and Agriculture (BMEL).

Subject to the allocation of the necessary funding, the following two temporary positions are to be filled with immediate effect for a period of three years in the Chemicals and Product Safety department at the BfR in the “Control of processes and assessment strategies” unit:

Doctoral Candidate (m/f/d)

Reference number: 2199/2019 | Salary group 13 TVöD

The position involves 50% of regular weekly working hours (currently 19.50 hrs).

Employment is to be used to obtain a doctorate. Participation in the accompanying doctorate programme is mandatory. This programme serves to convey specialised as well as methodical knowledge and provides the opportunity to present PhD projects regularly at internal events and to benefit from a scientific exchange of ideas and experiences.

The limited employment period is based on the German Fixed-Term Research Contracts Act (Wissenschaftszeitvertragsgesetz).

Duties:

The job announcements are being made within the scope of InnoMat.Life, a third party-funded project sponsored by the BMBF. The project deals with the establishment of grouping approaches for nano- and micromaterials, with special focus on polydisperse additive manufacturing materials (e.g. polymers, metallic powder), materials with possibly critical morphologies (e.g. fibres, rods, platelets) and hybrids, e.g. materials with a complex composition. InnoMat.Life examines these with regard to their hazard and risk potential for humans and the environment.

The individual duties are as follows (Position 1 and Position 2):

Position 1: Toxicological examination of micro- and nanomaterials

- Cytological work with various cell lines and 3D barrier models
- Toxicological examinations in vitro (e.g. cyto- and genotoxicity, oxidative stress)
- Examination of the uptake of materials through barriers and into individual cells

- More extensive mechanistical examinations when necessary
- Data evaluation including higher level evaluations, collaboration in the development of grouping criteria
- Participation in meetings and conferences
- Drafting of publications, reports, deliverables; presentation of data in the form of posters or lectures

Position 2: Analytics of the ab- and desorption processes of toxicologically relevant substances on the micro- and nanomaterials

- Examination of the ad- and desorption behaviour of polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB) on polymeric micro- and nanoparticles
- Identification and quantification of PAH and PCB by means of instrumental analytical methods such as GC-MS, GC-MS/MS, GC-HRMS, Pyrolysis-GCMS, LC-APCI-MS/MS – development and optimisation of methods
- Examination of the influence of particle ageing on sorption behaviour
- PAH and PCB levels in biological samples, identification and quantification of PAH metabolites in biological samples, examination of PAH DNA adducts
- Data evaluation, compilation of results, collaboration in the development of grouping criteria
- Participation in meetings and conferences
- Drafting of publications, reports, deliverables; presentation of data in the form of posters or lectures

Requirements:

Position 1: Toxicological examination of micro- and nano materials

- University degree (master's, diploma or comparable university degree) in Toxicology, Biochemistry, Pharmacy or comparable subject
- Knowledge of cell culture and fundamental toxicological, biochemical and molecular biological methods is a prerequisite
- Knowledge in the field of nanoparticle toxicity of advantage
- Scientific curiosity, good communication skills
- Very good written and spoken English
- Very good computer literacy as well as a conscientious and independent work approach, flexibility, ability to work in a team and the ability to cope with pressure are prerequisites, as is willingness to travel on business

Position 2: Analytics of the ab- and desorption processes of toxicologically relevant substances on the micro- and nanomaterials

- University degree (master's, diploma or comparable university degree) in Chemistry, Food Chemistry or comparable subject
- Knowledge and practical experience of modern analytical coupling methods (e.g. GC-MS, LC-MS) preferred
- Motivation and ability to prepare complex methods of instrumental analytics independently
- Knowledge of thermodynamics and the kinetics of ad- and desorption processes of advantage
- Scientific curiosity, good communication skills
- Very good written and spoken English
- Very good computer literacy as well as a conscientious and independent work approach, flexibility, ability to work in a team and the ability to cope with pressure are prerequisites, as is willingness to travel on business

The place of work is Berlin.

Application process:

Does this offer appeal to you?

If so, then please submit your application via our online system by **04 April 2019**:

[Apply online](#)

If you have any questions regarding the application procedure, please contact: bewerbung@bfr.bund.de.



– Please do not send any applications to this e-mail address –

If you are unable to submit your application online, you have the option of sending it by standard mail, stating the relevant reference number

Bundesinstitut für Risikobewertung
Personalreferat - 11.17 -
Max-Dohrn-Str. 8-10
10589 Berlin, Germany

Points of contact for more information

PD Dr. Haase

Tel.: 030 18412-27101

Prof. Dr. Dr. Luch

Tel.: 030 18412-27000



The BfR welcomes applications from people of all nationalities.

As an innovative scientific institution, the BfR offers family-friendly working conditions for which it was awarded the “audit berufundfamilie®” (work and family) certificate. The BfR guarantees equal career opportunities for women and men. In the case of equal suitability, severely disabled applicants will be given preferential consideration and are only required to have a minimum level of physical suitability.