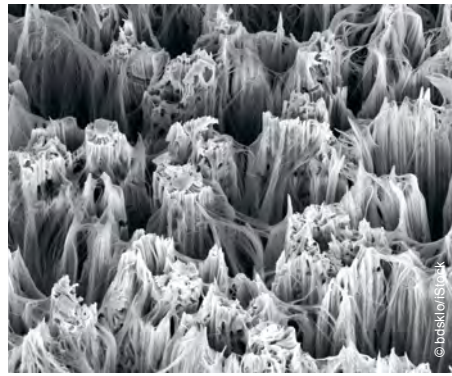
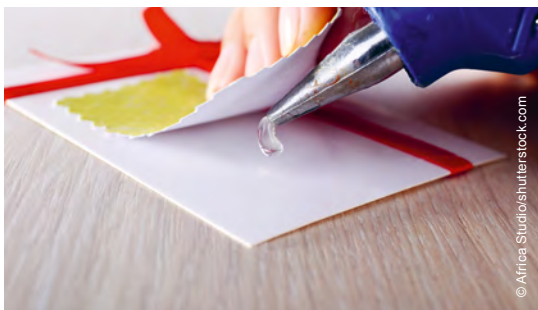


SPECTRUM

The use of chemicals in everyday life

How much dish-washing liquid do Germans use when cleaning their plates? How long are DIY enthusiasts in contact with filler? Exact data on the way people use these and other products is needed in order to assess the health risks of household chemicals. To date, very few scientific studies have been performed, and there is no standardised methodology. The BfR has tested several different methods in a feasibility study. Telephone interviews, in combination with self-administered protocols, supply reliable data on exposure to consumer chemicals, and the BfR has already collected sample information for some products. The data shows that a maximum four grams of dish-washing liquid is used in half of all washing-up sessions. And filler is used for a maximum 15 minutes during every second DIY task. The BfR is currently using the derived methods to collect representative data on the use of adhesives. In future, this data can be incorporated in the risk assessment and regulation of chemicals.

More information:
Schneider et al. Consumer behaviour survey for assessing exposure from consumer products: a feasibility study. *J Expo Sci Environ Epidemiol*. 2018; in press:1–12.



Systematic assessment of nanomaterials

The chemical industry uses them, so do the medical and electrical engineering sectors: nanomaterials, extremely tiny particles about the size of viruses, with a maximum size of one hundred billionths of a metre. Making optimum use of these particles and addressing the potential risks in a responsible manner is a major challenge for science, technology and consumer protection authorities. Nanomaterials can be produced in an unlimited number of forms. Even when nanomaterials have the same chemical composition, changes in size, shape or surface structure can result in numerous different variants, and it is practically impossible to analyse each individual variant in detail for regulatory purposes. During the past three years, the BfR has been working with 14 project partners in the “nanoGRAVUR” research project funded by the Federal Ministry for Education and Research (BMBF) to determine how nanomaterials with similar behaviour or comparable effect can be categorised into groups. To this end, the project has defined allocation criteria and tested these criteria using typical examples. This will pave the way for the more rapid analysis of nanomaterials in future. The findings of this project were presented and discussed at the OECD in Paris in September.

More information:
www.nanogravur.info
www.bfr.bund.de/en > Research > Third-party projects of the BfR > Nanotechnology

Chlorinated disinfectants

Water treated with chlorinated biocides for disinfection purposes can, if not prepared in the correct manner, contain chlorate and perchlorate in concentrations that may be harmful to health. These salts of chloric and perchloric acid have also been detected as residues in foods such as fruit and vegetables. If these salts are repeatedly ingested in sufficient amounts, they can inhibit iodine uptake in the body. This can be problematic for people with thyroid diseases or iodine deficiency as well as for newborn babies and children. According to the European Food Safety Authority (EFSA), chlorate can also pose acute health risks following short-term intake; this is unlikely in the case of perchlorate. Efforts should be made to further reduce concentrations in foods and drinking water in future. EFSA and the BfR recommend reducing the entry of chlorate and perchlorate into the food chain. Consumers do not generally need to change their dietary habits, as the health benefits of fruit and vegetables remain undisputed.

More information:
BfR Opinions Nos. 006/2018 and 007/2018 of 15 February 2018