

Joint press release of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the German Chemical Industry Association (VCI)

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### *Environment and health*

## Federal Environment Ministry and VCI develop new methods for measuring 50 chemicals

The human biomonitoring project has now arrived at a selection of 50 chemical substances for which measurement methods are to be developed for the first time. These chemicals can enter the human body through food, drinking water, cosmetics or consumer products. They were chosen on the grounds that they could adversely impact the general population or due to their potentially harmful toxicological properties. Since 2010, the Federal Environment Ministry (BMU) and VCI have been working together to determine how to reliably measure these substances in the human body. New measurement methods have already been developed for 26 of these chemicals, with more to follow by 2025. The new analytical methods are then used by the Federal Environment Agency (UBA) to measure the population's exposure to the respective substances. Based on the results, UBA draws up recommendations, where necessary, for more effectively protecting the population from unwanted chemical exposures.

German Environment Minister Svenja Schulze said: "Every new detection method for relevant chemicals is an important step towards greater chemical safety and protecting the population from problematic substances. This long and successful working relationship with the chemical industry is unique worldwide. At the same time, we are contributing to chemical safety outside Germany's borders, since we are making the new methods publicly accessible worldwide and introducing them at EU level."

VCI President Christian Kullmann said: "Product responsibility and ensuring that chemicals can be used even more safely is a top priority for our industry. The development of new analytical methods makes an important contribution to this goal. The human biomonitoring studies will provide valid data which be used as a basis for decisions on potential protective measures."

In the human biomonitoring project, the BMU and VCI are focussing on substances for which no suitable measurement method is yet available. The selection is based on recommendations from renowned experts working in research, industry and relevant government agencies. The criteria for selection are whether the population is potentially increasingly exposed to them or whether the substances have properties that are worrisome from a toxicological or health point of view. The selected substances include, for example, plasticisers, such as DINCH and DPHP, and the flame retardant HBCDD. Also chosen were ingredients commonly used in cosmetics such as geraniol, lysmeral and climbazole, pesticides such as fipronil and preservatives like CIT/MIT and bronopol.

And now, the BMU and VCI have selected the final three substances needed to reach the planned number of 50 substances: (1) 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (TMDD), a foam suppressor for paint and printer ink and used in materials that come into contact with food; (2) benzisothiazolinone (BIT), a biocide used mainly as a preservative and (3) N-butylbenzenesulphonamide (NBBS), a plasticiser for polyamide parts.

While the selection of substances for the human biomonitoring project has now been finalised, the development of the measurement methods on behalf of the VCI will continue for another five years. The aim is for the methods to be highly sensitive and suitable for determining the generally low background exposure of people who are not exposed to the measured substances in their jobs.

After the analytical methods are completed and validated, all will be published in recognised, international scientific journals with peer review processes, so that their high quality is externally verified and they are available worldwide.

The application of these methods in suitable studies is the responsibility of the BMU, which works on this in close cooperation with the UBA. Measurements are conducted, for example, in the German Environmental Surveys on Health and in the Federal Environmental Specimen Bank.

*The VCI represents the politico-economic interests of around 1,700 German chemical companies and German subsidiaries of foreign businesses in contacts with politicians, public authorities, other industries, science and media. In 2019, the German chemical industry realised sales of over 198 billion euros and employed ca. 464,000 staff.*

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