



Knowledge Base Nanomaterials

Latest research results on the
effects of nanomaterials on humans
and the environment

Scientifically profound
and
easy to understand

FUNDED BY THE



Federal Ministry
of Education
and Research

within the framework of the WING-programme

THE PROJECT

What exactly are nanoparticles? What is meant by “exposure”? When do toxicologists speak of a risk? This and many more questions are answered by the new internet knowledge base www.nanoobjects.info.

Many consumers miss reliable and understandable information on nanomaterials and nanotechnology. In an interdisciplinary approach of human- and environmental toxicology, biology, physics, chemistry and pharmacy the DaNa^{2.0} project team provides more transparency and processes results of research on nanomaterials and their influence on humans and the environment in an understandable way.

For this purpose, DaNa^{2.0} processes results of completed and current projects, funded by the German Federal Ministry of Education and Research, analyses scientific publications, reports, and latest news on human and environmental toxicology, and wraps up the state of knowledge in the knowledge base.

The screenshot shows the homepage of the DaNa^{2.0} website. At the top left is the logo 'DaNa^{2.0}' with the tagline 'Information about nanoparticles and their safety assessment'. Navigation links include 'About us', 'Glossary', 'Downloads', and a search bar. A secondary navigation bar contains 'START', 'PROJECTS', 'nanoINFO', 'FAQ', 'NEWS', 'LINKS', and 'CONTACT'. The main content area features a blue header with 'RESEARCH' and a 'More' button. Below this is a white section with a question mark icon and the text 'Ask our experts!'. The page is divided into several content blocks: 'Current Research' (with an image of hands holding a white disc), 'Knowledge Base' (with an image of 'NANO' blocks on a green surface), 'Nano Basics' (with an image of a hexagonal lattice), 'Current Events' (listing 'NanoSafe 2014 - 4th International Conference on Safe production and use'), 'Twitter' (with a 'Follow' button), and 'News' (with a link to a 'Scientific Workshop - Regulatory Challenges in Risk Assessment of Nanomaterials').

Screenshot from www.nanoobjects.info

www.nanoobjects.info

THE KNOWLEDGE BASE

Here you find:

- **Relevant nanomaterials** that are **already being used**
- Detailed **explanations of important health and environmental aspects** of nanomaterials
- **Summaries and evaluation of safety studies** of the respective materials (release, uptake, and behaviour of the materials)
- Facts relating to **risk management**



SIMPLE NAVIGATION, UNDERSTANDABLE TEXTS

- Thanks to the **linking of material and application**, you will find your information quickly
- The **texts** are presented in such a way that they are **understandable for interested laymen**
- **Journalists, NGOs, politicians or scientists** will find links to further literature
- The page shows **applications and products**, which may contain nanomaterials and guide you directly to the relevant materials
- The **glossary** and the **FAQs** contain **valuable further information** about nanotechnology



Open questions? dialog@nanopartikel.info

LATEST INFORMATION ABOUT NANOSAFETY RESEARCH

Find information on running and completed projects, funded by the German Federal Ministry of Education and Research, on **nanosafety for humans and the environment**:

- Project description and project goals
- Duration
- Project partners
- Results achieved and publications



CONTINUOUS UPDATES

- Regular **extension** of the **knowledge base** with latest data
- **News and Events** on **nanomaterials**
- Additional data from scientific **publications**



WHAT IS NANOTECHNOLOGY?

Nanotechnology is considered one of the key technologies of the 21st century. It uses methods and effects that allow for the analysis, controlled modification, or the manufacture of objects and structures in the range of a few nanometres.

A nanometre is one billionth of a metre or one millionth of a millimetre and, hence, corresponds roughly to one fifty thousandth of the thickness of a human hair.

The success of this fascinating technology is particularly based on its versatility. It will bring about fundamental changes of basic research as well as many sectors of industry and of life from electronics to the health care system. On the nano level, physical or chemical properties like electrical conductivity, colour, melting point, and reactivity of materials may change dramatically.

These modified properties open up new technological opportunities, ranging from the conversion and storage of energy, to the lifespan of tyres, to surface protection and cosmetics, to the diagnosis and the fighting of diseases. Consequently, nanotechnology as a multi-disciplinary technology influences numerous new developments.

DaNa^{2.0} on Twitter



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