



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 Programme
„From Material to Innovation“

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 displays the homepage of the DaNa^{2.0} website. At the top left is the logo for DaNa^{2.0}, with the tagline "Information about nanomaterials and their safety assessment". To the right of the logo is a navigation menu with links for "About us", "Glossary", "Downloads", and "Media". A search bar is located in the top right corner. Below the navigation menu are social media icons and a language selector. The main navigation bar includes links for "START", "PROJECTS", "nanINFO", "FAQ", "NEWS", "LINKS", and "CONTACT".

The central section features a large word cloud graphic with "NANOTECHNOLOGY" and "DNA" as prominent words. To the right of this graphic is the "KNOWLEDGE BASE" section, which includes a brief description of the knowledge base and a "More" button with a right-pointing arrow.

Below the word cloud is a "Welcome to DaNa^{2.0} (Data and knowledge on Nanomaterials)" section. It contains a paragraph of introductory text and two call-to-action buttons: "SOP" (with the text "Protocols can be found here!") and a question mark icon (with the text "Ask our experts!").

The bottom section of the page is divided into several content tiles:

- Current Research:** Features an image of hands holding a white cylindrical object and a short text snippet about sponsorship programs from the German Federal Ministry of Education and Research. A "Read more..." button is present.
- Knowledge Base:** Features an image of the word "NANO" on wooden blocks on a green lawn. The text describes a database with important and generally understandable aspects on health and environment of applied nanomaterials. A "Read more..." button is present.
- Nano Basics:** Features an image of a hexagonal lattice structure. The text describes chapters on release, exposure, uptake, and behavior of nanomaterials in the human body and in the environment. A "Read more..." button is present.

At the bottom of the page, there are four more navigation tiles: "Current Events", "Twitter", and "News".

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 citizens**
- **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
- Webpages available in **German and English**



Open questions? dialog@nanopartikel.info

www.nanoobjects.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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THE PARTNERS



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