Advanced materials: providing information on their safety via the DaNa knowledge base

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Advanced materials represent a very diverse group of engineered materials with a multitude of applications such as lightweight plastics with fibre reinforcement or hybrid materials used in 3D printing. Combining different basic materials into different hybrid or composite materials, variations in shape or size equip the resulting end material with a variety of novel properties (e.g. energy saving, light weight) and can specifically be tailored to the desired process or application.
This novel class of materials encompasses nanomaterials as a subgroup of advanced or smart materials.

During the last 10 years, the German DaNa project has established an extensive knowledge base on 26 different nanomaterials and their potential effects on humans and the environment, which can be accessed via the web platform **www.nanoobjects.info**.
The mission of the DaNa expert team is to summarise results from material science and safety research on advanced and nano materials following an established methodology to provide condensed and understandable information for citizens, consumers of specific products, but also for journalists or scientists from related scientific fields.

Update DaNa Knowledge base 2020 - advanced materials
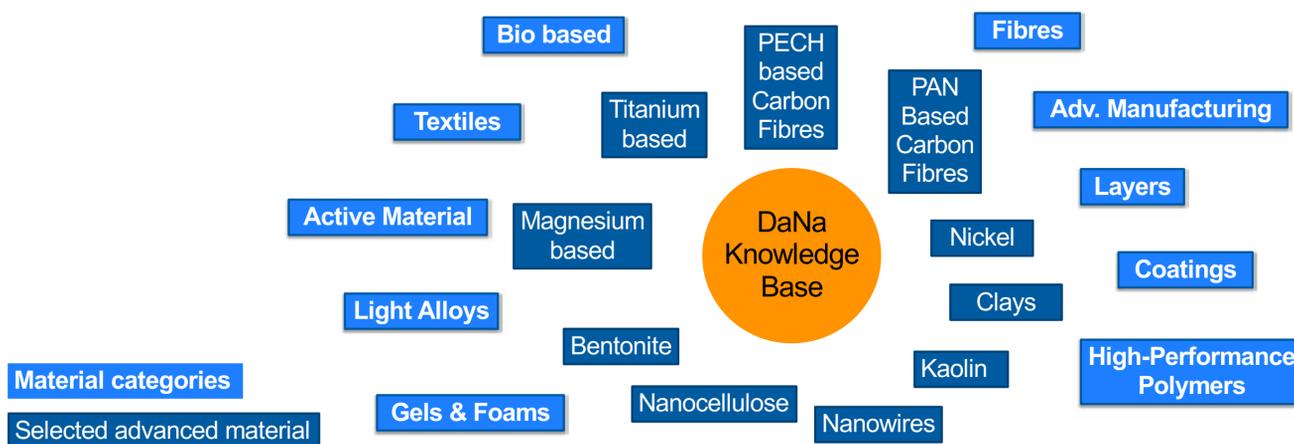
Advanced materials and nanomaterials selected for the DaNa knowledge base, which are currently being investigated by the research community (e.g. in the current German NanoCare4.0 funding measure "Reliable Material Innovations), market relevant and discussed in current media coverage.

DaNa Literature Quality Management Process: Collecting, analysing, compiling and presenting safety relevant information on advanced materials in a way that is understandable to laypersons
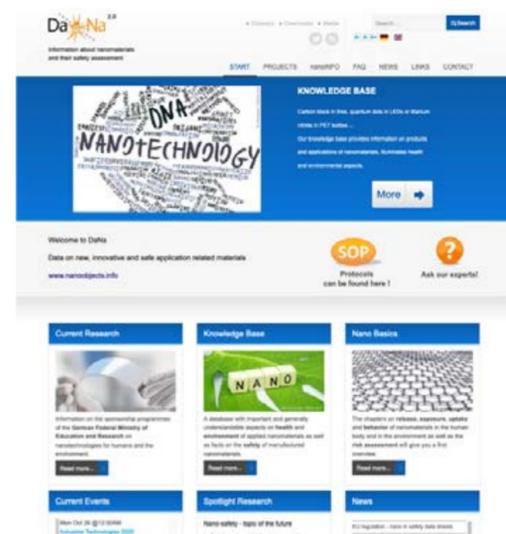
Bibliographic analysis of peer-reviewed scientific publications for the respective materials with a focus on (nano) safety / toxicology.

Experiments and results are evaluated for the DaNa knowledge base according to the criteria of the DaNa checklist "Methodology for selection of publications".

Information on material characteristics, human toxicology and ecotoxicology is published on

www.nanoobjects.info

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