

Leaflet Precautionary Matrix for Synthetic Nanomaterials

Key facts in brief



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Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Office of Public Health FOPH
Federal Office for the Environment FOEN

The precautionary matrix for synthetic nanomaterials

Background

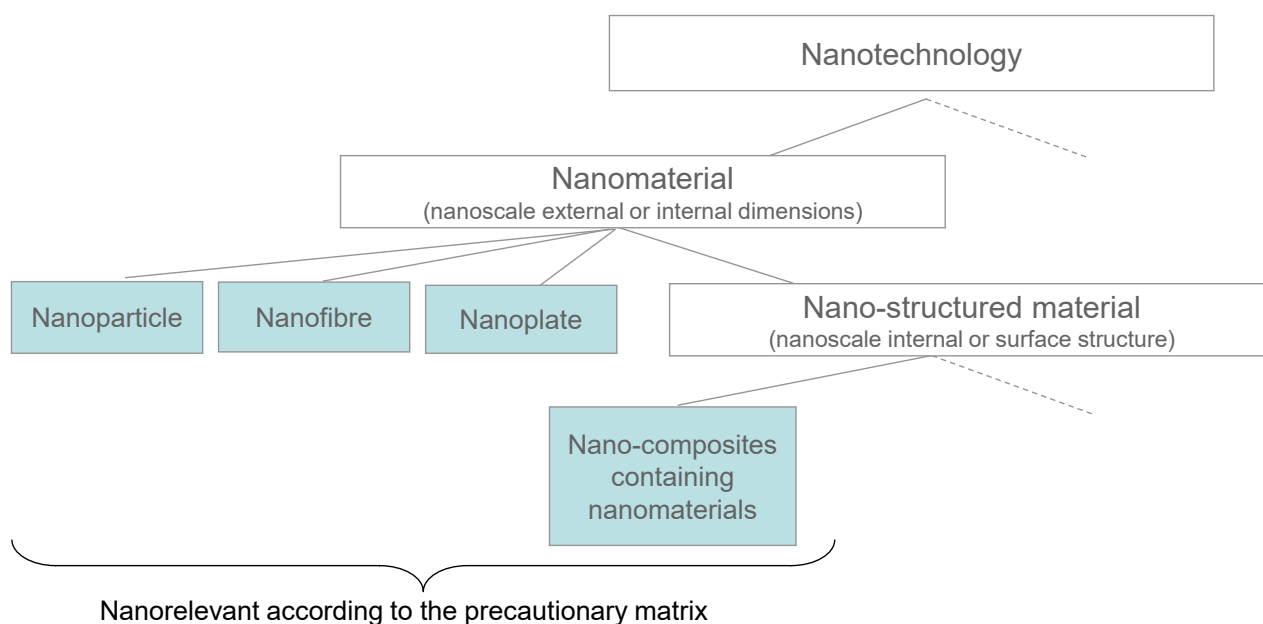
Depending on the area of application, nanomaterials have to be assessed and their health and environmental risks have to be evaluated analogously to traditional food additives, chemicals, biocides, etc.

Existing methods of hazard and risk assessment are generally applicable to nanomaterials as well. Additions that take into account nano-specific properties are necessary, however. As there currently are no internationally harmonised standards, the need for measures or additional data to sufficiently contain or assess the risks of specific nanomaterials has to be decided on a case-by-case basis.

This precautionary matrix is a product of the action plan synthetic nanomaterials (2008-2019). As a voluntary resource it is designed to assist all stakeholders (industry, trade, commerce, authorities, insurers, research laboratories, etc.) that are responsible for the safety of employees, consumers or the environment in the preliminary clarification of any need for action. The precautionary matrix is regularly updated to reflect the latest state of scientific research.

Focus of the precautionary matrix

The precautionary matrix only regards as relevant nanomaterials with **at least one nano-scale dimension** or products containing these nanomaterials.



Parameters for assessing the nanospecific precautionary need

The precautionary matrix is based on a limited number of evaluation parameters, including

- size of the particles
- their reactivity and stability
- their release potential
- the amount of particles

These parameters are used to estimate the precautionary need for employees, consumers and the environment at each defined step in the life cycle.

The precautionary matrix is **INTENDED** ...

- ... to increase the extent to which all participants in the nanotechnology value chain assume responsibility towards employees, consumers and the environment
- ... to treat all nanomaterials as if no investigations had been carried out for specific cases so as to allow a consistently objective evaluation
- ... to initiate and facilitate the differentiated approach to different nano-specific problems on a case-by-case basis
- ... to identify key areas for health and environmental protection where necessary and pertinent
- ... to facilitate and objectify communication between all interest groups

The precautionary matrix is **NOT INTENDED** ...

- ... to replace a risk assessment of nanomaterials
- ... to evaluate the dangers and risks associated with specific nanomaterials
- ... to prevent the development of sustainable and safe nanotechnologies
- ... to produce an evaluation as to whether the current state of knowledge in a specific application is sufficient to assess risks
- ... to prescribe the selection and implementation of measures
- ... to determine whether or not nanomaterials are dangerous solely on the basis of the respective matrix classification

Information sources

Information and documents on the precautionary matrix can be obtained here:

<https://www.bag.admin.ch/pmx-en>

Available documents

- Information Versions of the Precautionary Matrix
- Leaflet Precautionary Matrix for Synthetic Nanomaterials
- Guidelines on the Precautionary Matrix for Synthetic Nanomaterials
- Fact sheet for the environment

Further information on nanotechnology:


<http://www.infonano.ch>

Contacts

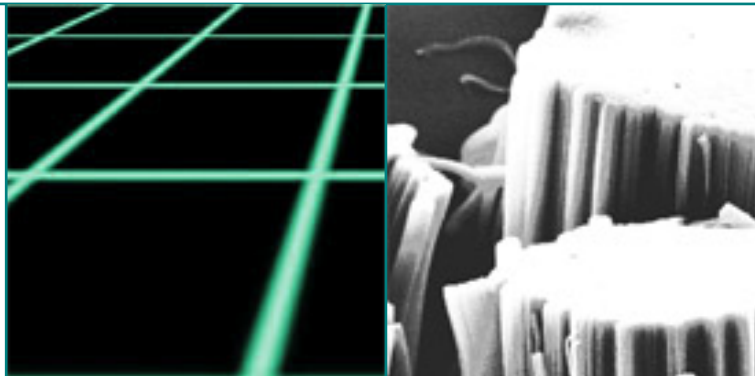
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Bundesrat für Gesundheit BAG
Bundesrat für Umwelt BAFU



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