



**Friends of  
the Earth  
Europe**

## REACH and nanotechnology – briefing

In the Environment Committee second reading REACH vote, MEPs supported a legal framework for testing and placing on the market potentially hazardous nanoparticles. This is necessary to deliver an improved protection of human health and environment from the potentially harmful effects of manufactured nanomaterials.

Nanotechnology refers to production and use of materials at the smallest possible scale. Such materials are produced specifically for their very different physical and chemical effects. Accordingly, they very often also show different biological effects from their bigger counterparts and are characterised by higher reactivity and mobility. The adverse effects of engineered nanoparticles have not been systematically investigated, but there is increasing scientific evidence that their very nature is likely to lead to an increase of toxicity.

One of the primary concerns about nanoparticles is that there is increasing evidence that nanotoxicity will not be detected by the testing methods currently available for bulk chemicals (e.g. computer simulations such as QSARs (Qualitative Structure-Activity Relationships)).

Indeed, the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) gave an opinion on 10 March 2006 on how appropriate existing methods are to assess the potential risks associated with nanomaterials. The opinion pointed to major gaps in the knowledge necessary for risk assessment, including nanoparticle characterisation, the detection and measurement of nanoparticles, the dose-response, fate and persistence of nanoparticles in humans and in the environment and all aspects of toxicology and environmental toxicology related to nanoparticles. It concluded that current risk assessment methodologies require some modifications in order to deal with the hazards associated with nanotechnology, and in particular that existing toxicological and eco-toxicological methods may not be sufficient to address all of the issues arising with nanoparticles.

REACH should take SCENIHR's warning into account and include a special provision for nanotechnology so that information requirements are adapted in the future to new developments in this field (amendment 161).

A further concern is that the majority of nanoparticles will be excluded from the scope of REACH. This is because their tiny size and almost negligible tonnage mean that hardly any will be imported or produced at the threshold REACH quantity of one tonne or more per year.

REACH should include an additional provision ensuring that nanoparticles produced in quantities under one tonne will, when appropriate, be covered in the future (amendment 161). In the meantime, for manufactured nanomaterials produced or imported in quantities above one tonne, we should ensure that full base set data is provided (amendment 165). Nanoparticles should also fall under the scope of authorisation as the strongest possible control regime (amendments 78 and 87).

**The Environment Committee of the European Parliament has clearly expressed concerns that, despite growing scientific evidence for the potential toxicity of nanoparticles, this rapidly expanding industrial sector is beyond the scope of regulations. As hundreds of nano-enhanced products are currently available on the market, REACH should include provisions to guarantee basic safety of nanoparticles and a review clause that will provide for further controls, once more information about potential hazards associated with manufactured nanomaterials becomes available.**

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