



Potential risks of nanomaterials

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Nanotechnology is the design and manipulation of materials at the nanometer scale such that novel or enhanced properties emerge. It is a new area of knowledge that promises a dazzling array of opportunities in areas as diverse as manufacturing, energy, health care, and waste treatment. But while the ability to develop nanomaterials and incorporate them into products is advancing rapidly, our understanding of the potential environmental, health, and safety effects of nanomaterials — and of the most effective ways to manage such effects — has proceeded at a much slower pace. Because of the novel properties that emerge at the nano scale, nanomaterials may require more and different information than called for under traditional risk management systems. And given the enormous commercial and societal benefits that may potentially come from this technology, it is likely that nanomaterials, and the products and other applications containing them, will be widely produced and used. Therefore it is especially important to understand and minimize the potential risks.