

## I. Regulations regarding nanoparticles

- a) Before early 2004, there were no regulations or recommendations as to how to handle nanoparticles.
- b) Had to give regulations, due to the fact that these particles were used in a variety of substances. For example: sunscreen, drugs, textile, and aircraft parts.
- c) Nanomaterials such as titanium dioxide powder were overlooked, despite the fact it may be dangerous to our health. Miniaturization of particles may be harmful!
  - i) Nanoparticles should be distinguished from micro particles.
  - ii) Their fundamental properties are different.
  - iii) Nanoparticles may even be more reactive and enter the body in direct methods, which can make them even more dangerous.
- d) Regulations at the workplace are very loose.
  - i) First regulation limits the permissible quantity of *known* toxic substances in the air.
  - ii) Second regulation regulates the level of airborne dust in general.

## II. Nanoparticles as a class of their own

- a) Nanoparticles have not yet been assigned to a separate class of substances.
  - i) It is a challenge for research to do so, since two same nanoparticles can exhibit completely different properties when coated with different substances.
  - ii) Overcoming this challenge would entail a great deal of expense.

- b) A system of standardization of nanoparticles is essential.
- c) Researchers need something that is universally agreeable before they begin placing regulations regarding these nanoparticles.