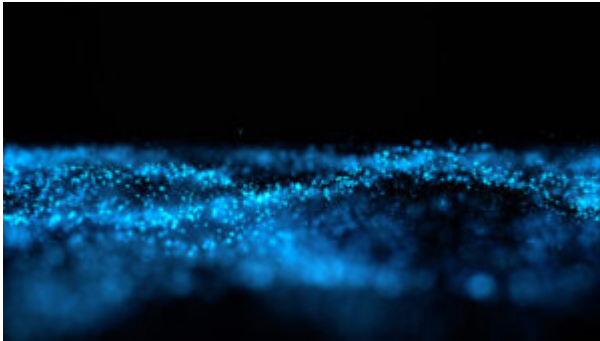


Danish Report Warns of Dangers of Inhaling Nanoparticles



Nanomaterials are made up of very small objects or particles. The use of nanomaterials not only opens up new technological possibilities, but also raises new environmental and health concerns.

So the Environmental Protection Agency of Denmark launched the 'Better control of nanomaterials' initiative to create an overview of the possible risks of posed by nanoparticles and nanomaterials. The [Danish EPA report](#) contains a summary of the results of that four-year initiative.

The report looked at the risks to consumers and the environment from nanomaterials. People can intake nanomaterials in various ways, including orally, through the skin and through the eyes. But it found that the most serious health damaging effects are due to inhalation of nanomaterials and especially by inhalation of the pure nanomaterials.

Besides the chemical contents of the nanomaterial, the very small size and the shape of nanoparticles play a substantial role in that risk. For example, there are indications that certain types of fibre-like carbon nanotubes are similar to asbestos and thus lead to lung cancer.

In addition, the very size of nanomaterials make them capable of penetrating deep down the respiratory tract where they can lead to irritation, inflammation and other airway disorders that, in the long term and in some cases, can lead to cancer and cardiovascular diseases.

As a result, it's in the workplace during production of products containing nanomaterials, and maybe also through waste management, that the highest risk of inhalation of nanomaterials exists. Thus, workers often experience more regular exposure to nanomaterials than consumers'and may experience such exposure over the course of a 40-year long work life.

That's why it's vital that employers protect workers from inhaling nanomaterials through the use of protective measures, such as [ventilation](#) and PPE, most notably [respiratory protection](#).

Other OHS Insider resources on nanoparticles include:

- Another study that found ties between [exposure to nanoparticles](#) and

autoimmune diseases

- Six steps to take to protect workers from nanoparticles
- Complying with any requirements pertaining to nanoparticles or nanomaterials in the OHS laws in your jurisdiction.