

MANUFACTURING INSIGHTS

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How to Safely Implement Nanotechnology

The manufacturing industry continues to grow and evolve as exciting innovations emerge. One innovation that has been a hot topic of discussion is nanotechnology, which is the control of matter on a molecular scale between 1 and 100 nanometers.

This intricate methodology involves processing tiny materials to produce nanoparticles or nanomaterials. Nanoparticles are already being used in paints, car parts, eyeglasses, cosmetics, tennis racquets and clothing, and their use is expected to increase. There are, however, some concerns about the impacts of nanomaterials and nanoparticles on the environment and workers' health.

Keep the following safety measures in mind to protect workers when using nanotechnology:

- **Use special protective clothing for employees.** Research indicates that nanoparticles can possibly penetrate traditional knit clothing. Ironically, clothing weaved using nanotechnology could prove the most effective at preventing these particles from entering.
- **Require all employees to wear eye protection.** Even when an employee is not working directly with nanoparticles or nanomaterials, they should be encouraged to wear eye protection. The particles tend to behave like a gas, settling more slowly than other particles and dispersing widely while also re-suspending easily.
- **Restrict consumption of food and drink to nonwork areas.** Nanoparticles could be just as harmful if ingested as they are if inhaled due to their ability to permeate through organs and into the bloodstream.
- **Provide shower and locker room facilities for all employees.** Require workers to shower and change clothing before leaving their work area. Be active in preventing the spread of nanoparticles outside of the workplace.
- **Educate employees.** Give employees the latest information on nanotechnology news and trends so they are aware of the dangers and know why they should be using extra precautions.
- **Reduce unnecessary exposures.** Limit the number of employees working with or around nanoparticles by using safe handling procedures or a closed system when working with high volumes of nanoparticles.

New technologies are exciting, but it's also vital to keep employees safe. For more information on the latest manufacturing trends and safety practices, contact Lloyd Sadd Insurance Brokers Ltd today.

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LOCATIONS

Edmonton: 1.800.665.5243

Calgary: 1.866.845.8330

Kelowna: 1.800.665.5243

lloydsadd.com

navacord.com

info@lloydsadd.com

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