



# Nano-Enabled Wood Coatings and Stains

*Engineered and manufactured nanomaterials are very small — much thinner than a human hair. Products that contain engineered nanomaterials are increasingly used in construction. When workers cut, grind, sand, or disturb nano-enabled construction products, dust containing the engineered nanomaterial gets into the air that workers breathe. Some nanomaterials cause health problems in test animals, but most have not been thoroughly tested.*

## Janet's Story

Janet works as a carpenter. She is using an orbital sander on wood coated with a new nano-enabled product. The product is supposed to keep the wood from being damaged by water and sunlight. Sanding the wood creates a lot of dust in the air. She is concerned that breathing the dust may be harmful to her lungs and make her sick.

- ✂ Have you or someone you know ever worked around hazardous dust? What was done to protect workers from breathing the hazardous dust?**
- ✂ What could be done to prevent the dust from getting into the air?**

- ✂ How could you find more information about the nano-enabled product used to coat the wood?**

## Remember This

- Use a hose on your sander, running to an industrial vacuum with a HEPA filter. This system will capture the dust before it gets into the air.
- Use a respirator if the vacuum system does not capture all the dust or is not available. Your employer should provide you with the right type of respirator, as part of a full respiratory protection program required by OSHA.
- Ask your employer if the product you are working with is nano-enabled. Look for this information on the product label, on the safety data sheet, or in CPWR's electronic Library of Construction Occupational Safety and Health, at <http://nano.elcosh.org>.
- Wear goggles or a face shield to protect your eyes from the dust, and hearing protection to prevent hearing loss when running an orbital sander.

## How can we stay safe today?

What will we do at the worksite to prevent exposure to dust from nano-enabled products?

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OSHA Standard: 1926.56

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- ✘ Use a hose on your orbital sander, running to a vacuum with a HEPA filter to capture the dust before it gets into the air.
- ✘ Use a respirator if the vacuum does not capture all of the dust or when a vacuum system is not available.
- ✘ Wear goggles or a face shield to protect your eyes from the dust and hearing protection to prevent hearing loss.