

Nano-enabled products contain very small engineered nanomaterials. Adding them to construction products can make them stronger or protect them from the sun. Nanomaterials are many times thinner than a human hair. Nano titanium dioxide is a common nanomaterial added to paints. Workers can breathe in nanomaterials when they spray, sand or disturb nano-enabled paint.

The National Institute for Occupational Safety and Health (NIOSH) believes nano titanium dioxide might be harmful to workers because it causes lung damage and cancer in lab animals. NIOSH has a recommended exposure limit for nano titanium dioxide. OSHA has no specific standard for engineered nanomaterials, but other standards, like respiratory protection or hazard communication, may apply.

Frank's Story

Frank is using an airless sprayer and a new paint that contains nano titanium dioxide to paint wooden siding. Once the paint dries, one of his co-workers will sand the paint with an orbital sander. Frank knows spraying creates mist and sanding creates dust. He is concerned that breathing mist or dust containing engineered nanomaterials could damage his health and the health of his co-worker

What could be done to prevent the mist and dust from getting into the air?

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