



Working Safely With Paint

We don't usually think of paint as a hazardous chemical—after all, millions of people use paint in all sorts of situations without wearing any special protective equipment. But understanding the health hazards of prolonged or repeated exposure to paint substances can help you understand why OSHA requires you to protect yourself when using them.

Health Hazards of Paint

Paint contains pigments, solvents, resins and other ingredients to give it color, texture, spreadability and durability. Many of these ingredients are hazardous to your health; among them are solvents, such as mineral spirits, naphtha and turpentine, that evaporate quickly from paint exposed to the air. Even short-term exposure to these chemicals can cause dizziness, eye irritation, nausea, coughing and other symptoms. In addition, paints containing polyisocyanate hardeners can cause shortness of breath, chills and fever. Long-term exposure to paint ingredients, even when no short-term effects are noticed, can damage the kidneys, liver, blood or nervous system. Some even cause cancer and birth defects in laboratory animals.

You may work with paints for a long time with no ill effects. But you can suddenly develop rashes, hives, swelling or scaling of the skin or coughing and shortness of breath, which often lead to permanent lung damage or severe respiratory stress. This is sensitization, an allergic reaction to one or more of the ingredients in paint. Once you become sensitized, it's possible you may never be able to work with the sensitizing substance again. To prevent sensitization, you must avoid contact with the paint in the first place by using the correct personal protective equipment.

Other Hazards

The volatile solvents in paint are flammable. Painting in an unventilated area near an ignition source—such as a cigarette, spark or static electricity—can be very dangerous. Paint containers exposed to high heat may explode. And some paints contain chemicals that may react violently with other substances.

Educate Yourself

Always read the labels of the materials you're going to use before you begin painting. Use the labels and material safety data sheet (MSDS) as a guide to the hazards the paint contains, the type of protective equipment to use and whether the paint may ignite easily. The MSDS will also tell you how to contain and clean up a paint spill and what you can do in case of overexposure to paint.

Protect Yourself

- ◆ You can prevent exposure to harmful paint chemicals by wearing the appropriate personal protective equipment—a respirator designed for painting, coveralls, chemical-resistant gloves and eye protection.
- ◆ Some safety glasses made for painting have special layered peel-off lenses you can remove as they get covered with paint.
- ◆ Paint only in well-ventilated areas if possible.
- ◆ Make sure to use an appropriate respirator when spraying polyurethane paints and other paints in enclosed areas.
- ◆ Change your respirator's cartridges often, as specified by the manufacturer's guidelines.

Clean Up for Safety

- ◆ Keep paint and other paint-related containers tightly sealed and properly labeled when not in use.
- ◆ Store paints at the proper temperature to avoid explosion.
- ◆ Dispose of empty cans and paint- or solvent-soaked rags in airtight containers to avoid spontaneous combustion.
- ◆ Use soap, water and a washcloth to clean your hands; solvents and paint thinners can cause irritation, infection and severe drying of the skin, as well as toxic effects.
- ◆ Remove clothes soaked in solvents and properly clean them.