

## SECTION II - SAFETY AND HANDLING

We select our resin and hardener raw materials with the health and safety of our customers in mind. However, it is not possible to make a perfectly safe epoxy resin system. These materials all have health risks, especially if improperly used.

The primary hazard when working with an epoxy system is skin irritation leading to potential skin sensitization from prolonged and repeated contact. Most people who become sensitized are unable to continue working with epoxies without breaking out in a rash most commonly on the inside of the forearms and on the forehead above the eyebrows. The effect appears to be cumulative. That is, you might be able to get away with getting epoxy on your skin for a while, but it could catch up to you and you will be sensitized.

Wear disposable gloves or barrier skin creams when working with products containing epoxy resins. Never use solvents to remove epoxies from your skin. Solvents, in addition to having problems that are as bad as or worse than epoxies, can help drive the hazardous ingredients into your body. Use waterless hand soap and lots of paper towels to remove epoxy from your skin. Then apply a good skin cream to replace the natural oils removed by the hand soap. If you get gummy, half-cured material on your skin let it cure and peel it off the next day. Cured epoxy doesn't stick well to skin or hair. Using a solvent to remove partially cured epoxy from your body is not an acceptable alternative.

If a rash develops when working with epoxy products stop until it clears up. If the rash is bad or persists see a doctor. Take a copy of this book and an MSDS (Material Safety Data Sheet) for the product you have been using. Have the doctor contact us if additional information is needed. Don't continue to work with epoxy if you break out every time you get near it. This is your body's way of telling you to cool it. Pay attention.

Working cleanly and keeping the materials off you are the keystones of epoxy safety. Work in a throwaway mode. Don't try to clean brushes with solvent - toss them out. Tools like putty knives can be wiped with a paper towel then sanded clean after the product cures. Cured epoxy doesn't stick to polyethylene, wax paper or most plastic wrap. Gloves, disposable brushes, and onetime use roller covers are expendable. Your health is not. Think of gloves and dust masks as another part of the cost of the project. Be prepared to spend some money on these items that are designed to help protect you. We like the inexpensive disposable gloves as opposed to heavier, more permanent gloves. The problem with the heavier gloves is that they eventually become contaminated with uncured resin or hardener on the inside long before they wear out. The very thing that you started using to protect you is now a source of contamination. Disposable gloves wear out about the time they become dirty and are replaced.

The vapor pressure of epoxy resin and hardener is so low that vapors rarely cause problems, unless you have already become sensitized. Well-cured resin should cause no problem, as it is largely inert.

Whenever sanding or creating any kind of dust wear a mask to keep the dust out of your lungs. If you sand fiberglass and allow the dust to get on your skin you will probably get an itch from the glass fibers. Shower in cool water to wash the fibers off you. The itch usually goes away after 24 hours.

Two-part epoxy products should be sprayed only by experienced, professional applicators, and then only if impervious coveralls and air-supplied respirator (SCUBA) equipment is worn. Airborne mists of reactive chemicals can exaggerate their health hazards exponentially.

System Three epoxy resin and hardener products have a low flammability risk, generally burning only if exposed to a high heat source. BUT, the solvents found in most shops are extremely flammable and/or explosive in the right concentration. Be smart and avoid any possible source of ignition when using solvents. Be even smarter and eliminate the use of solvents.

Material Safety Data Sheets (MSDS) for all System Three epoxy products can be had for the asking. Current versions are always available on our website ([www.systemthree.com](http://www.systemthree.com)) or by contacting us.

Most people never develop health problems working with epoxy resins. If we scared you a little then it's our hope that you'll work with these materials a little smarter and cleaner than you might have otherwise.

