

# 5 Steps to Printing Safely

Resin 3D printing is an incredible hobby enjoyed by thousands of people internationally. As the hobby grows, it is important to remember to practice safety to ensure a long and happy hobby. Everyone loves 3D printing models.

No one loves trips to the hospital.



ATLAS 3D SUPPORT SOLUTIONS

## 1 Proper Safety Gear

Uncured resin is toxic. We must protect ourselves through the entire printing process. Skin contact with resin should be avoided to prevent long-term reactions or short term burns. Always check with the manufactures SDS for more info, but as a general guideline, Nitrile gloves (resin can eat through latex), safety glasses, and a respirator or very well ventilated are the basic requirements.

1



## 2 Post-cure your models

Even after printing, washing, and removing supports, models still need to be post-cured for safe handling. Many companies offer a curing machine, or you can make your own with UV leds and some aluminum foil in a box. You can even use the sun, and it's free. Resin needs to be completely cured to be chemically stable and safe to handle without gloves. 10-20 minutes in a cure box, or 2 cycles in a dedicated curing machine are usually enough, flipping the model half way through to ensure curing all the way around.

2



## 3 Clean Up Spills

Spills will happen. We are all human, and accidents will happen. It's important to clean them up quickly and safely. Wipe them up with paper towels or disposable cloths, and then use some of your cleaning solution to wipe up any residue. Hit the spot with a UV flashlight for extra safety.

3



## 4 Cure Your Waste

Many people forget, but anything that has touched liquid resin should be exposed to UV for curing before proper disposal. Paper towels, gloves, old FEP sheets, the inside of resin bottles and bags, and the removed supports, are all examples of things that need to be cured before disposal. Used cleaning solvents can be reclaimed a few times, but when it's time to dispose of them, they should be allowed to evaporate in the sun or be brought to a hazmat disposal facility.

4

**CAUTION**



**BIOHAZARD**

## 5 Water Washable and Plant based resins

Just because something is soluble in water doesn't mean it is safe to pour down a drain. Water washable resins and the water used to clean them as well as many eco- and plant based resins are still hazardous to the environment and to you and should be treated as such. For easy disposal, allow the contaminated water to evaporate and then dispose of the solid and now cured resin particulates according to local regulations.

5

