



Cyanotype – Health & Safety

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In this day and age, exposure to chemicals in a workplace is strictly controlled to prevent exposure to harmful substances and to minimise their effects on workers. Whilst there are no similar legal requirements for the use of the same substances at home, some useful lessons can be learned from industry and utilised in order to keep us safe.

Chemicals can enter the body in a surprising number of ways. You can obviously drink or eat them, you can inhale them as either vapours or dusts, you can get them in through cuts and scratches, you can absorb them through your skin or splash them into your eyes. So, with all these dangers, can we safely use the chemicals we need to produce our designs; the answer is of course, yes, provided we take sensible and suitable precautions.

Chemicals can have different effects on different people and what may cause a reaction for one person may not have the slightest effect on someone else. This is particularly so when it comes to dermatitis.

Dermatitis is an allergic reaction to contact with the skin by a sensitising substance and whilst you may use a chemical in contact with your skin for some time with no ill effects, it may suddenly cause you to suffer an adverse reaction and you can end up with sore and cracked skin.

The best way to avoid this is to protect yourself from exposure to the substance in the first place by wearing suitable protective clothing when handling chemicals of any type.

Keep all chemicals away from places where children and animals could come into contact with them and keep them away from surfaces and areas where you store and prepare food. Don't put your liquid working chemicals into bottles that have

been used for drinks to avoid the risk of people mistaking them for soft drinks (many serious cases of poisoning have happened like this), keep powders in containers with secure lids and label every container with details of exactly what it contains.

When you've made up your solutions don't put them into your normal domestic utensils such as pans, bowls and dishes etc. so as to avoid the risk of them being mistaken for something that is a foodstuff, although it would be difficult to imagine that anyone would drink some of the solutions due to their colour, but there's no accounting for taste (and poor eyesight).

Most of the chemicals we use are fairly commonplace and have no significant adverse effects on us and the environment, however one or two of them need special care in both their use and disposal. We can look at these in a little detail over the next few paragraphs.

Potassium Ferricyanide

Despite its name, Potassium Ferricyanide is not as hazardous as it may sound. The crystals or powder must be kept in a tightly lidded container to stop them breaking down and deteriorating. The container should be kept in a cool place. The contents should also not be mixed with strong acids as this could cause the release of harmful fumes.

Avoid creating dust and don't breath it in or get it in your eyes.

Disposal in the quantities that we use is fairly straightforward: dilute the solution with plenty of water and flush away ensuring that plenty of water is flushed down the drains afterwards.

Ferric Ammonium Citrate

This powder is slightly acidic and can cause skin and eye irritation so the usual precautions apply.

Disposal is as for all the other substances i.e. dilute the solution and flush away with plenty of water.

Summary

As you can see, you should have few problems with the chemicals we use in cyanotyping provided you follow some basic and simple rules. I've listed a few do's and don'ts to help you safely use the chemicals to protect yourselves and others and the environment .

Don'ts

Don't rub your eyes with your hands or gloves after handling chemicals; always wash them thoroughly before you do anything else.

Don't contaminate the inside of gloves or other protective clothing with chemicals as this can cause problems with prolonged contact.

Don't measure out or use chemicals when there are children or animals around to avoid them getting the various liquids or powders on themselves.

Don't use kitchen utensils for measuring or storing chemicals – use proper containers at all times and don't use containers for anything else.

Don't pour chemicals into rivers or streams to avoid harming wildlife.

Don't leave chemical solutions around in open containers where they could be reached by children or animals.

Don't leave contaminated wet clothes in contact with the skin to avoid creating irritating effects.

Don't eat, drink or smoke when handling chemicals so as to avoid getting them in your mouth.

Do's

Do cover work surfaces with plastic sheets, newspaper or other absorbent material to soak up spillages – its easy just to gather contaminated plastic or paper together and throw it in the bin.

Do wear gloves and other protective clothes particularly if you have sensitive skin.

Do dilute solutions before pouring away.

Do label all your chemical containers properly.

Do work in a draught free area to avoid powders etc blowing about and contaminating other surfaces.

Do keep children and pets well away from your work area until you have cleared up all your chemicals and equipment.

And finally.

If you do spill chemicals on your skin, wash them off immediately with plenty of water and seek medical attention if you accidentally get anything in your mouth or your eyes.

The use of ultra-violet light sources

Never stare at UV light sources as this can damage your eyes.

A sensible precaution is to use suitable goggles when working with UV. These can often be obtained from companies that supply them for use with sun beds or for industrial use.

Always make sure that any electrical equipment you use is safe by buying it from a reputable company and having it checked over from time to time by an electrician. Be careful to use properly earthed electrical equipment near to wet or damp objects and ensure that water does not splash on to hot lamps, as this may cause them to shatter.