

Are Floor Strippers Safe?

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Almost all schools systems and public buildings apply acrylic finishes to their terrazzo and stone flooring to keep them shiny and looking clean. Often these finishes have to be striped off and a new finish applied. The strippers that are used to remove these acrylic coatings often contain hazardous chemicals that are harmful to humans, animals and the environment. The following information will explore how dangerous these strippers are and offer an alternative.

I examined the Material Safety Data Sheets (MSDS) of over 20 popular strippers used to remove acrylic floor coatings. I found that there are several common ingredients found which are the following:

Monoethanolamine
Butoxyethanol
Ethanolamine
Ethylene Glycol Monobutyl Ether
Sodium Hydroxide

I next examined the dangerous of these ingredients

Butoxyethanol

Butoxyethanol goes by several names including ethylene glycol monobutyl ether, ethylene glycol butyl ether, ethylene glycol n-butyl ether, Butyl Cellosolve, butyl glycol, butyl oxitol, glycol butyl ether, Dowanol EB, Gafcol EB, poly-solv EB, and Ektasolve EB. If you see any of these ingredients on an MSDS for the stripper you are using you are dealing with Butoxyethanol.

Butoxyethanol is used in many products other than floor strippers, including paints, varnishes, lacquers, paint thinners, agricultural products, herbicides, silicon caulks, cutting oils, fabric dyes and inks and household cleaners and even in some floor cleaners.

Butoxyethanol is a dangerous chemical in many ways. It can pass into the air from water and soil as a vapor. This means that the vapors are emitted when you mix your strippers in water and apply them to the floor.

Butoxyethanol is very harmful to humans and has been shown in laboratory testing to cause the following:

- Irritation of the nose and eyes
- Headaches
- A metallic taste
- Vomiting
- Breathing problems

- Low blood pressure
- Lowered levels of hemoglobin
- Blood in the urine
- Metabolic acidosis
- Birth Defects
- Kidney and liver damage

Butoxyethanol and the Environment

Butoxyethanol can be absorbed by soil and can make its way into the water supply. The warnings on many labels of floor stripper containing Butoxyethanol say the following:

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and flame.

Do you want this harmful chemical used in your school or building?

Monoethanolamine

Monoethanolamine is another common chemical found in strippers. Monoethanolamine also goes by several names such as Colamine, Glycinol, Olamine, Ethanolamine, 2-Aminoethanol, 2-Hydroxyethylamine, beta-Ethanolamine and beta-Hydroxyethylamine.

Some of the potential health effects include the following:

- Extremely harmful to the eyes.
- Harmful to lungs, skin.
- Tissue damage can occur around mucus membranes
- Can cause burns on the skin
- Maybe toxic to kidneys, lungs, liver and central nervous system.

Monoethanolamine and the Environment

Monoethanolamine is combustible, corrosive and harmful to animals and environment. Monoethanolamine can produce very harmful byproducts due to degradation in the environment.

Sodium Hydroxide

Another chemical found in many strippers is Sodium Hydroxide. Sodium Hydroxide is commonly known as lye. Any one who has ever worked with this knows it can easily burn you skin, not to mention what it can do to your eyes and mouth. Since it is poisonous and harmful to animals and fish, it is classified as a poison and is very corrosive.

Conclusions and Alternatives

As you can see the common chemicals found in numerous stripper formulas are not safe for humans or the environment and cannot be classified as a sustainable practice if using them.

The good news is there are alternatives to these chemicals:

Acrylic coating on terrazzo and stone flooring can be removed mechanically with diamond abrasives using no chemicals other than water.