



Chemical Safety

Chemicals You Should Never Mix

- **Vinegar & Bleach**

The combination is said to be an excellent disinfectant; however they create toxic chlorine gas when used together.

Side Effects: The addition of weak acid to bleach releases poisonous chlorine and chloramine vapors.

- **Ammonia & Bleach**

It can be easy to accidentally mix the two of these products, which is why you must read the ingredients list on your products. Certain products come in both ammonia and ammonia-free variations, and some drain cleaners contain bleach.

Side Effects: If combined and inhaled, these vapors can cause respiratory damage in the throat as well as burns.

- **Rubbing Alcohol & Bleach**

Household bleach contains sodium hypochlorite. This will react with ethanol or isopropyl alcohol and product chloroform, hydrochloric acid, and other compounds.

When combined, you could damage your nervous system, eyes, lungs, skin, liver, and kidneys.

Side Effects: Extremely high levels of chloroform exposure may result in death, and mild exposure could result in dizziness and nausea, according to the EPA.

- **Hydrogen Peroxide & Vinegar**

Usually, people attempt to create an all-natural product when using these chemicals; however, the result is more likely to be a corrosive acid. Used separately, on the same surface, the products are harmless, but when mixed in the same container, peracetic acid is created. Despite the potential it has to be an effective sanitizer, the chemical is potentially corrosive and irritating.

Side Effects: With enough concentrations, peracetic acid is “very irritating to the skin, eyes, nose, throat, and lungs, with the potential for causing permanent scarring of the skin, cornea, and throat.”

- **Baking Soda & Vinegar**

Though not deadly, the mixture of these two products is mostly pointless.

Side Effects: Not harmful, but when combined, these two chemicals give you a product that is mostly water with some sodium acetate thrown in. The result is an ineffective cleaning solution.

