

What are the dangers of mixing these common cleaning products?

Mixing bleach and ammonia:

When bleach and ammonia are mixed, toxic gases called chloramines are produced. Exposure to chloramines gases can cause:

- coughing
- shortness of breath
- chest pain
- wheezing
- nausea
- watery eyes
- pneumonia and fluid in the lungs
- irritation to the throat, nose, and eyes

Mixing bleach and acids:

When chlorine bleach is mixed with an acid, chlorine gas is given off.

Chlorine gas exposure, even at low levels, almost always irritates the eyes, throat, and nose. It causes coughing and breathing problems, burning and watery eyes, and runny nose. Higher levels of exposure can cause chest pain, more severe breathing difficulties, vomiting, pneumonia, and fluid in the lungs. Very high levels can cause death.

Mixing bleach and other products:

Bleach also reacts with some oven cleaners, hydrogen peroxide, and some insecticides.

Common Cleaning Products Can Be Dangerous When Mixed



Iowa Department of Public Health
Division of Environmental Health
Hazardous Substances Emergency
Events Surveillance Program





Mixing common household cleaning products can cause serious injuries. Be sure to always read the product labels before using household or institutional cleaning supplies.

DO NOT MIX LIST

Bleach with toilet bowl cleaners

Bleach with vinegar

Bleach with ammonia

Do not use two drain cleaners together

Different brands of one type of product

Certain disinfectants with detergents

What is chlorine bleach?

Sodium hypochlorite is the active ingredient in chlorine bleach. It is found in household bleach and many other disinfectants. Sodium hypochlorite reacts with ammonia, drain cleaners, and other acids. Many household products state that they contain bleach on the label. Pool chemicals frequently contain calcium hypochlorite or sodium

hypochlorite and should not be mixed with household cleaners.

What products contain ammonia and acids?

Ammonia:

In addition to ammonia purchased as a cleaning product, ammonia may be found in the following:

- Glass and window cleaners
- Urine (use caution when cleaning diaper pails or litter boxes)
- Interior and exterior paints

Acids:

Products that may contain acids include:

- Vinegar
- Glass and window cleaners
- Automatic dishwasher detergents and rinses
- Toilet bowl cleaners
- Drain cleaners
- Lime, calcium and rust removal products
- Brick and concrete cleaners

If you are unsure what chemicals your cleaning products contain, contact the manufacturer before mixing.

ALWAYS keep cleaning chemicals in their original containers so that labeling remains intact.

