Clorox Commercial Solutions® Clorox® Urine Remover

Frequently Asked Questions

What causes urine to smell?

Urine is composed of waste products including urea, uric acid, sodium chloride (salt), excess water and other waste. The odor from urine on bathroom surfaces comes from the naturally occurring microorganisms that feed on urine. Uric acid crystals (crystalized urine residue) often remain in porous surfaces, and will emit an “ammonia” odor with time. Humid conditions or wetting the surface can also reactivates the odor.

Why use a specialized urine cleaner? Why not just use a General Bathroom Cleaner (GBC) for urine?

GBCs won’t completely remove the stubborn uric acid crystals from difficult to clean surfaces such as porous grout. The remaining uric acid crystals give off ammonia and are the source of long-term odors.

Why not use enzyme-based cleaners?

How enzymes work:
Enzymes are created by bacteria to digest proteins found in urine. These bacteria (sometimes called ‘bugs’) are living organisms that essentially ‘eat’ uric acid crystals. The affected area must be hospitable to the bacteria in order for them to work— moist, not too hot, and must not come in contact with chemicals that kill bacteria.

There are several issues with the bacteria/enzyme approach:

They don’t clean urine stains as effectively. In order to support the enzyme-producing bacteria, the formula must have a neutral pH. An acidic (low pH) formula is needed to effectively clean urine stains from difficult surfaces such as porous grout.

They cannot be combined with other cleaning products.
Using another product may kill the bacteria and the enzymes it produces. This is especially relevant for flooring, where if a high or low pH product is used before or after, the bacteria and enzymes will not work. This means staff needs to be trained on how to use an enzyme cleaner in order for it to be effective.

Why use Clorox® Urine Remover?

How our formula works:
Hydrogen-peroxide breaks down the proteins and cell structure of naturally occurring microorganisms, to address the source of short-term and long-term smells. Our formula also includes surfactants and an acidic pH, which effectively removes urine stains from difficult surfaces such as porous grout.
There are several benefits over enzymes that this product offers

Cleans urine stains better from difficult surfaces such as porous grout
Because it does not have constraints that enzyme-based cleaners do, Clorox®Urine remover can include surfactants, a mild solvent (isopropyl alcohol), and have an acidic pH.

Little training required
- Can be used before or after other cleaning products, with no additional training needed on how to use the product
- Very low surface-safety concerns. Does not contain bleach.

How is this product different from Clorox® EPA-registered hydrogen peroxide based disinfectants?

<table>
<thead>
<tr>
<th>Clorox® Urine Remover</th>
<th>Clorox® Pro-oxide Spray</th>
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<tbody>
<tr>
<td>Not an EPA-Registered Disinfectant</td>
<td>EPA-Registered Disinfectant</td>
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<tr>
<td>For spot treating</td>
<td>For general cleaning</td>
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<tr>
<td>Milder pH (5-6), for use on a wider range of surfaces, especially soft surfaces</td>
<td>For hard surfaces only</td>
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<tr>
<td>2 % Hydrogen Peroxide</td>
<td>Proprietary activated hydrogen peroxide technology (1.4%)</td>
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<tr>
<td>Pleasant linen scent that quickly dissipates</td>
<td>Unscented</td>
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How much hydrogen peroxide is in the Clorox® Urine Remover?
This product is manufactured with over 2 wt% hydrogen peroxide. In contrast, some commercial dilutable bathroom cleaners with hydrogen peroxide contain less than .20 wt% hydrogen peroxide in the diluted solution.

Will it work on other types of stains and soils?
Yes! This formula is optimal for organic (protein-based) stains. Protein-based stains include human stains like blood, vomit, feces, semen. It is also great for pet stains.
The product may also be as a pretreatment step on sheets, pillowcases, towels, and linens prior to a normal laundry wash. The pretreatment step will boost the removal of body soils and food stains such as berry juice and tea during laundering.

**If this product is so great, why not use it as a GBC?**

This product is specialized for protein-based stains. It won’t work as well on soap scum, hard water and other types of bathroom stains. It is also not an EPA-registered disinfectant which is often needed in restrooms.

**Is this product safe around kids?**

There are no specific concerns for children with this product. Refer to the label and MSDS for specific statements around product safety. Follow instructions on the label. The instructions say to keep children and pets from contact with sprayed area until dry because this is a standard label instruction typical on most commercial carpet and upholstery cleaners.