

Clorox® Bleach: Salt of the Earth

If clean has a smell, it's the iconic scent of bleach. Its barely detectable aroma announces the towel is ready to use. Its trace on a white robe offers assurance you can wrap yourself in.

With so much power in one bottle of bleach, some worry that it must be harmful to the environment. But the simple fact is: **Bleach starts as salt and water and ends as salt and water. The end product contains no free chlorine, and it essentially breaks down into salt and water during or quickly after use.**

The Clorox® Bleach Cycle Is Sustainable

The bleach cycle — from production to use to environmental fate — is simple and sustainable. It begins and ends with sodium chloride, common table salt. We call it the salt-to-salt cycle. Here are the six steps:

1. Chlorine production: Chlorine manufacturers produce chlorine and sodium hydroxide by running an electric current through salt water.
2. Chlorine conversion: Clorox purchases chlorine and makes household bleach by bubbling the chlorine into a solution of water and sodium hydroxide. During this process, all of the chlorine is converted to a sodium hypochlorite solution
3. Clorox® liquid bleach production: A 6.0 percent solution of sodium hypochlorite is combined with water.
4. Product use: Clorox® liquid bleach, registered with the EPA, reacts with soils and stains, making them easy to remove, and wipes out bacteria and viruses. The result is improved cleaning and whitening and quick, effective and economical disinfecting.
5. Return to salt: After household use, when disposed of down the drain, 95 percent to 98 percent of household bleach rapidly breaks down into salt and water. The remaining by-products are largely removed through the wastewater treatment process of most cities and water districts. No dioxins are formed. No by-products with the ability to build up over time in organisms are formed.
6. At the end of the cycle, household bleach has returned to the salt from which it was originally produced in a sustainable cycle.



Bleach and Mercury

Several years ago, Clorox banned the use of mercury cell caustic in the production of our bleach. In addition, we refine the water coming into our plants before it is used in the production of bleach. During the process, minerals frequently present in the source water—mercury, lead and others—are removed.