



Northeastern University

Environmental Health & Safety

Mercury in Bleach

Bleach is a common disinfectant used in laboratory settings. The active ingredient in bleach, sodium hypochlorite, is not a hazard to the environment and can be disposed of into the wastewater stream. Some brands of bleach, however, can contain trace amounts of mercury from the manufacturing process and should be avoided.

How can mercury end up in bleach?

Bleach, more specifically sodium hypochlorite, is manufactured as a product of sodium hydroxide and chlorine gas. The manufacturing of bleach begins with the electrolysis of salt water. In some cases, a manufacturer may use a mercury cell to help keep the sodium ions separate by binding sodium and mercury to form mercury metal. This sodium from the mercury metal can easily be isolated and removed for the production of sodium hydroxide. Complete removal of mercury while producing sodium hydroxide, however, is not always achieved resulting in trace amounts of mercury present in the final sodium hypochlorite product.

Regulation and Compliance

MWRA Regulation 360 CMR 10.024 "Specific Discharge Limitations/Local Limits"

As per the Massachusetts Water Resources Authority (MWRA), concentration of mercury into wastewater discharge is limited to no more than 1 part per billion (1 ppb).

In order to be compliant with regulation, the Office of Environmental Health & Safety recommends the use of Austin's Elite Professional Bleach, a mercury free bleach, in laboratories. Clorox and Bleach-Rite are not recommended for lab use since these brands can contain trace amounts of mercury.

For more information on Clorox products, visit <http://factsaboutbleach.com/mercuryqa.htm>.

Ordering Information

Mercury free bleach is available through Fisher Scientific*:

Austin's Elite Professional Bleach

Catalog Number: 50-010-45

<https://www.fishersci.com/shop/products/mercury-free-elite-bleach-6-cs/5001045>

Austin A-1Bleach

Catalog Number: 50156242

<https://www.fishersci.com/shop/products/austin-a-1-bleach-gallong-6-cs/50156242>

**Northeastern University receives discount pricing with Fisher*

Contact EH&S for any additional questions regarding mercury and bleach at 617.373.2769 or ehs@neu.edu

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