

Does Green Equal Clean?

By Susan Shingledecker

We test the claims of 20 boat soaps to see if greener cleaners are really up to the task of cleaning stubborn boat dirt

These days many boaters are looking to improve their boat-cleaning routine by searching for environmentally friendly cleaning products, and manufacturers are responding. A quick scan of cleaners on a boating store shelf reveals a wide range of products with various “green” terms including: Biodegradable, Nontoxic, Phosphate-Free, Recycled, EPA Design For The Environment, Eco-Friendly Formula, Environmentally Safe, Environmentally Friendly, and (perhaps our favorite) Environmentally Smart.

Whatever do these terms mean? Can you believe the claims? And most importantly, if a product is truly “green,” will it still clean your boat?

To find out, we put 20 popular boat soaps and all-purpose cleaners to the test. Many of those tested make green claims on their labels. We also, as a control, included a few tried-and-true cleaning staples that do not make any environmental claims.

We sent one set of cleaners off to a university laboratory for toxicological analysis and kept a second set for our hands-on cleaning effectiveness tests.

In the lab, each of the 20 cleaners was put through two tests, one to determine its toxicity and another to determine its biodegradability.

Toxicity tells us the impact the cleaner has on living organisms and biodegradability measures the amount of time it takes for the substance to break down into harmless components.

Though there are a number of ways to measure the environmental impact of a given product, we only looked at these two factors. It's quite possible that some “green” cleaners that did not fare well in our test may have other “green” attributes that were outside the scope of our testing.

Question What You Read

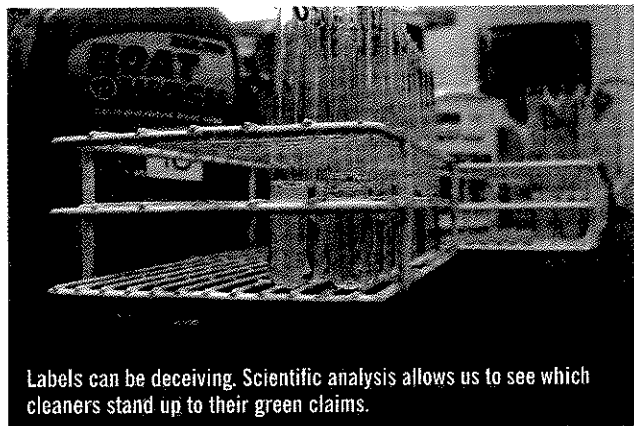
In the lab, we found surprises. Unfortunately for consumers, there's no regulation for the use of claims such as “nontoxic” and “biodegradable” that are found on many labels. According to the *Consumer Reports* web site, www.greenerchoices.org, the labels *nontoxic* and *biodegradable* are not verified and have no publicly available standards. Our tests confirm this as we discovered a few “green” labeled products appeared to be among

can accumulate in the water and sediment over time. Therefore, the time it takes for a cleaner to biodegrade is more important than its initial toxicity. Our tests revealed that the most biodegradable cleaners are: **ConcrobiumXT Eco-Wash**, **Thetford Boat Wash**, and **Meguiar's Boat Wash Gel**. The Concrobium was nearly 100% degraded in two weeks and the Thetford and Meguiar's were nearly 100% degraded after four weeks.

Practical Testing

To test the cleaners' performance, we lined up three boats with varying levels of dirt ranging from a well-cared-for boat with a wax finish and minimal residue, to a very dirty boat that had been stored under trees and left untouched for two years. We taped off 20 one-foot sections along each boat's hull, mixed, and applied the cleaners per the instructions on each bottle.

Soft Scrub With Bleach, a stalwart stain remover for many boaters, performed best in our boat-cleaning test. But as many boaters have found, it should be used sparingly on only the toughest stains, because overuse of abrasive cleaners damages gelcoat and fiberglass finishes. Other strong performers include: **Simple Green All Purpose**, **Extreme Simple Green Motorsports**, **4U Concentrated Cleaner**, **West Marine Pure Oceans Crystal Boat Soap**, **West Marine Boat Soap**, **Starbrite Sea Safe Boat Soap**, **Ecover Heavy-Duty Boat Wash**, and **ConcrobiumXT EcoWash**. There is a common suspicion that “green” cleaners are not as effective as conventional cleaners. We found that a product's environmental claims do not appear to negatively affect its cleaning performance, and that some “green” products outperformed some tested conventional cleaners.



Labels can be deceiving. Scientific analysis allows us to see which cleaners stand up to their green claims.

the most harmful products tested, and some conventional products were far less toxic than suspected, yet made no environmental claims on the packaging.

Testing identified the three least toxic products: **3M Boat Soap**, **Meguiar's Boat Wash Gel**, and **Thetford Boat Wash**. Thetford's result was not surprising as this product carries the EPA's Design For The Environment label and is marketed as a green product. 3M, however, makes no environmental claims on their packaging, leading us to believe that it was not designed specifically with environmental impacts in mind. Meguiar's touts its product's biodegradable properties, but makes no mention of toxicity.

Products that break down slowly have a greater impact on aquatic life as they

Which Ones Cleaned Up?

3M Boat Soap's low toxicity wasn't matched by an ability to quickly break down; less than five percent of the product was degraded after four weeks.

Meguiar's Boat Wash Gel, while excelling with low toxicity and an ability to break down quickly, performed poorly when cleaning the boats.

Concrobium XT Eco Wash's fast degradation, relatively low toxicity, and strong cleaning performance make it a strong

Overall, the range and cleaning performance of environmentally friendly cleaners is good news for boaters and our waterways, but labels can be confusing. The Federal Trade Commission produces guidelines on the use of green marketing claims to help marketers avoid making environmental claims that are unfair or deceptive. While the latest edition was last updated over 10 years ago, a revision is in progress. Clarification is needed. Some products we tested were labeled "environmentally friendly" and were among the most toxic we



Cleaning Tips

Regardless of your choice of cleaner, how you use it can determine your environmental impact as much as, if not more than, the toxicity and degradability of the product itself. Factors such as how much you dilute a product, how much you use, and where you clean your boat all contribute to the amount of product that ends up in the environment. Here are some tips to remember:

- Rinse your boat regularly with fresh water to prevent dirt from accumulating.

- Follow the dilution recommendations on all cleaning products. It's important to use the cleaning product as specified — whether applied directly to the hull, mixed in a bucket, or attached to a hose. We found that in most cases where the product had a range of recommended dilutions, the weaker mixture worked equally well as the stronger mixture. So save yourself some money and stick with the weakest recommended solution that works.

- Use an environmentally friendly, general boat soap for overall cleaning, then spot treat those troublesome stains with a stronger product. We found that regardless of "green" claims, the five cleaners that were directly applied with a spray or a paste were hundreds, to thousands of times more toxic when used as directed than the 15 boat soaps that are mixed with water in a bucket.

- Minimize runoff by using a towel after harsh spot treatments.

How The Green Cleaners Stacked Up In Our Tests



	Toxicity	Biodegradability	Cleaning Performance	Cost
Thetford Marine Boat Wash*	Excellent	Excellent	Good	\$0.75 - \$1.50/Gallon
Meguiar's Gel Wash	Excellent	Excellent	Poor	\$0.22/Gallon
ConcrobiumXT EcoWash	Good	Excellent	Good	\$7.50/Gallon
Shurhold's Yacht Brite Brite Wash	Good	Good	Good	\$0.57/Gallon
Simple Green All-Purpose	Good	Fair	Good	\$0.59 - \$1.90/Gallon
4U Concentrated Cleaner	Good	Fair	Good	\$1.68 - \$3.37/Gallon
3M Marine Boat Soap	Excellent	Poor	Good	\$1.87/Gallon
West Marine Pure Oceans Boat Soap	Fair	Fair	Good	\$0.56 - \$1.12/Gallon
Starbrite Sea Safe Boat Wash	Good	Poor	Good	\$0.58/Gallon
West Marine Crystal Boat Soap	Good	Poor	Good	\$1.25 - \$2.50/Gallon
Spray Nine Boat Soap	Fair	Fair	Fair	\$1.25/Gallon
Trac's Green Clean Boat Soap	Good	Poor	Fair	\$0.17/Gallon
Soft Scrub with Bleach Cleanser	Poor	Fair	Excellent	\$0.30/Oz. (Direct application)
Spray Nine Green Marine Multi.	Poor	Fair	Good	\$0.21/Oz. (Spray)
Thetford Marine Deck Cleaner	Poor	Fair	Fair	\$0.41/Oz. (Spray)
West Marine Pure Oceans All Surface	Poor	Fair	Fair	\$0.44/Oz. (Spray)
Boatlife Boat Cleaner	Fair	Poor	Fair	\$1.65/Gallon
OrPine Boat Soap	Good	Poor	Poor	\$0.20/Gallon
Extreme Simple Green Motorports	Poor	Poor	Excellent	\$0.19/Oz. (Spray)
Recover Heavy Duty Boat Wash	Poor	Poor	Good	\$0.44/Gallon

contender, but it was the priciest of the products tested.

Weighing all factors (cleaning performance, toxicity, biodegradability, cost) our staff pick for best all-around green product is Thetford Boat Wash. This cleaner comes in a concentrated, cost-effective formula, and cleaned the boats relatively easily, with low toxicity and high biodegradability. It's also readily available at major boating supply stores nationwide.

tested, and some of the least toxic products we found made no environmental claims.

The degradation of products labeled "biodegradable" after four weeks ranged from 100 percent to less than five percent. So how do you choose the best product for you and what labels can you believe?

Visit our web site to view our "Green" Terms Glossary and to learn more about our methodology and test results at www.BoatUS.com/Foundation.

Logo Logic



The Environmental Protection Agency's "Design For The Environment" logo indicates the EPA has screened every ingredient for potential human health and environmental effects and determined that the product contains only those ingredients that pose the least concern among chemicals in their class.



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