

# Non-Biocide Hull Paints FAQ's



## What is the difference between biocide hull paint and non-biocide hull paint?

A biocide hull paint releases a chemical that can slow or stop the growth of marine life living on the bottom of the boat. Biocides act similarly to pesticides on your lawns that prevent infestations of insects or weeds. The build-up of too much biocide in the water can potentially end up harming the surrounding marine life. The most common hull paint biocide is copper.

Non-biocide hull paints do not release chemicals and are typically made of silicone, ceramic or epoxy materials. As a result, they are more environmentally friendly and some of them last significantly longer than copper hull paints. These paints work by either creating a surface that prevents marine life from getting a strong attachment or by being made of a durable material that is resistant to more aggressive cleaning.

## Why choose non-biocide over copper hull paint?

- Environmental reasons: Non-biocide hull paints do not release any chemicals into the environment that may potentially harm the organisms living there.
- Longer lasting paint: According to paint manufacturers many of the non-biocides, when cleaned properly, will last from five to 10 years depending on the product. This means fewer haul outs, less repainting and potential cost savings.
- Decreased drag: For power boats the soft non-biocides create an extremely slick surface that has been shown to reduce the drag in the water, increasing fuel efficiency and decreasing fuel consumption. This saves the boater money in the long run. For racing boats the decreased drag also means an increase in speed.

Hear from your fellow boaters! Several local San Diego Bay boaters and hull cleaners have provided testimonials on their experiences with non-biocide hull paints. To watch the video and hear more, go to the Hull Paint Conversion section of [sandiegobaycopperreduction.org](http://sandiegobaycopperreduction.org).

## Are there different types of non-biocide hull paints? How do they work?

Non-biocide hull paints are categorized as either hard or soft paints. Hard non-biocide hull paints are composed of extremely durable materials such as epoxy or ceramic. The paints function as a protective layer on your hull. While they will not prevent attachment of fouling organisms they can withstand more aggressive cleaning and resist scratching from cleaning. Paint manufacturers state these paints can last up to 10 years before needing to be reapplied.

The soft non-biocides are commonly formulated with silicon compounds. They create an extremely slick surface that prevents fouling from firmly attaching to the hull. As a result, they can be relatively easy to clean at a frequency similar to copper hull paints. According to manufacturers, the soft non-biocides are designed to last up to 5-10 years before needing to be reapplied.

## Is the application process for non-biocides different from copper hull paints?

Yes. Most of the non-biocide hull paints require the existing copper paint be removed in order for the non-biocide paint to be applied. Also, many non-biocide paints require a spray-on application which may increase application costs. However, once a non-biocide hull paint has been applied to a hull subsequent applications may be applied over the existing non-biocide hull paint.

Recently, several companies have developed primers that allow non-biocide hull paints to be applied without having to remove the old copper paint from the hull. These primers will help reduce the upfront costs when applying a non-biocide hull paint for the first time. There are non-biocide hull paints that can also be rolled-on just like copper hull paint. Please refer to the paint manufacturers recommendations for specific application guidelines or speak to your local boatyard.

## What are the cleaning requirements for non-biocide hull paints?

The cleaning needs greatly depend on the type of non-biocide hull paint you select. Hard non-biocides, usually composed of epoxy or ceramic, are designed to withstand routine, vigorous cleaning, and a more abrasive tool may be used. The frequency of cleaning depends on the aesthetic preference and performance needs of a boater. If a consistently clean hull or fast speeds during frequent boat use is desired then cleaning can be done every two to three weeks. If a boater doesn't mind some growth for an infrequently used boat or speed is not an issue then less cleaning is necessary and rigorous cleaning may be implemented.

Soft non-biocides, usually formulated with silicon, require less abrasive cleaning methods such as the use of a piece of terry cloth or carpet. Due to the slick nature of the paint, some level of fouling can be removed by reaching speeds which cause the fouling to come off on its own (generally about 10-12 knots). In general the cleaning frequency is similar to copper hull paints and ranges from every two to four weeks. It is important to note that nylon bristle power brushes should not be used on soft non-biocide hull paints.

## How do I know which non-biocide hull paint is for me?

Selecting a non-biocide hull paint is not a "one size fits all" strategy. It is important to consider factors such as how you use your boat, how the paint works, maintenance needs and upfront and long-term costs. The Port's "How to Select an Alternative Hull Paint: A Boater's Guide" brochure is a helpful guide to help you assess the right type of paint for you. The brochure also provides information on a number of non-biocide hull paints. This list of non-biocide hull paints in the brochure is not an exhaustive list of non-biocide hull paints. Check with your local boatyard, hull paint manufacturers or the Port's website for information on additional paints. It should be noted that the mention of trade names or commercial products does not constitute endorsement or recommendation of use by the Port.

## How much will converting to a non-biocide hull paint cost?

The upfront costs for the application of a non-biocide hull paint may include stripping and paint application. This may result in higher upfront application costs when compared to copper. However, because the boat doesn't have to be repainted as often (five to 10 years according to paint manufacturers), the long term cost benefits make up for the upfront costs. According to paint manufacturers these benefits include less frequent haul outs, reduced repainting costs as non-biocides can be reapplied over themselves, fuel savings and increased speeds.

Use the Port's online Hull Paint Cost Calculator to get an estimated upfront application cost range for a number of non-biocide hull paints.

An EPA-funded alternative paint study by the Port and the Institute for Research and Technical Assistance found that the cost of non-biocide hull paints is similar to that of copper-based hull paints when examined over the life of the product (the initial painting to repainting).

## How do I know these hull paints really last as long as the manufacturers say they will?

A number of San Diego recreational boaters have applied the non-biocides to their vessels. The Port's testimonial video provides perspectives from local boaters and hull cleaners on the longevity and effectiveness of some of these non-biocide hull paints. When we asked about his non-biocide hull paint one San Diego Bay boater replied, "For the last 5 years I've used a non-copper, non-biocide hull paint...and it's working quite well, actually it's excellent."

## What are some non-biocide hull paint options that are currently available?

There are a number of options available to Southern California boaters. To help you get started, the brochure "How to Select and Alternative Hull Paint - A Boater's Guide" provides information on a number of non-biocide paints that are available. This list of non-biocide hull paints in the brochure is not an exhaustive list of non-biocide hull paints. Check with your local boatyard, hull paint manufacturers or the Port's website for information on additional paints. It should be noted that the mention of trade names or commercial products does not constitute endorsement or recommendation of use by the Port.



For more information, visit

**[sandiegobaycopperreduction.org](http://sandiegobaycopperreduction.org)**

call 619-686-6283 or email

[hullpainttransition@portofsandiego.org](mailto:hullpainttransition@portofsandiego.org)



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