

Copper-free Future for Boat Bottoms?

High raw-materials costs and ever-expanding environmental regulations are leading the boat bottom-paint industry in a new, more costly direction. We will be seeing reduced levels of copper as a biocide, increasing numbers of paints using alternatives to inhibit marine growth, and increasing prices passed on to the marine consumer.

According to representatives from several paint manufacturers, *PS* has learned that not only is copper at record high prices (near \$4 per pound), but other paint ingredients—pigments, resins, and solvents—have also dramatically increased in price over the last few years. Most companies are attempting to re-engineer their paints in such a way as to provide better pricing while maintaining or enhancing antifouling protection.

Pettit has already reformulated several of its paints to reduce the copper content for both cost and environmental reasons, they reported to *PS*. We have not tested any of these new formulations yet, as the changes took place rather recently. Only one new paint formulation from Pettit, Ultima SR, made it onto our newest set of test panels. This one went

from a copper content of 60 percent down to 40 percent. We'll see next year whether a one-third reduction in copper affected its performance.

Just how much does the price of copper affect the price of a gallon of paint? Well, according to Pettit General Manager John Ludgate, it is significant. He explained that a gallon of Pettit Trinidad SR contains 17 pounds of copper. At \$4 a pound, that equates to \$68 worth of copper in a gallon of paint that sells for \$200.

California boaters already are seeing the results of tightened environmental regulations on bottom paints. As is usually the case, once California enacts a new environmental regulation, the rest of us will eventually see these restrictions, too, though it may take several decades.

Paint companies have dealt with the rules on reduced copper emissions into California harbor waters by developing new copper-free paints. We should see more of these in the future, and hopefully, we'll also be seeing better performance and lower prices as an increasing number of metal-free biocide paints hit the market.