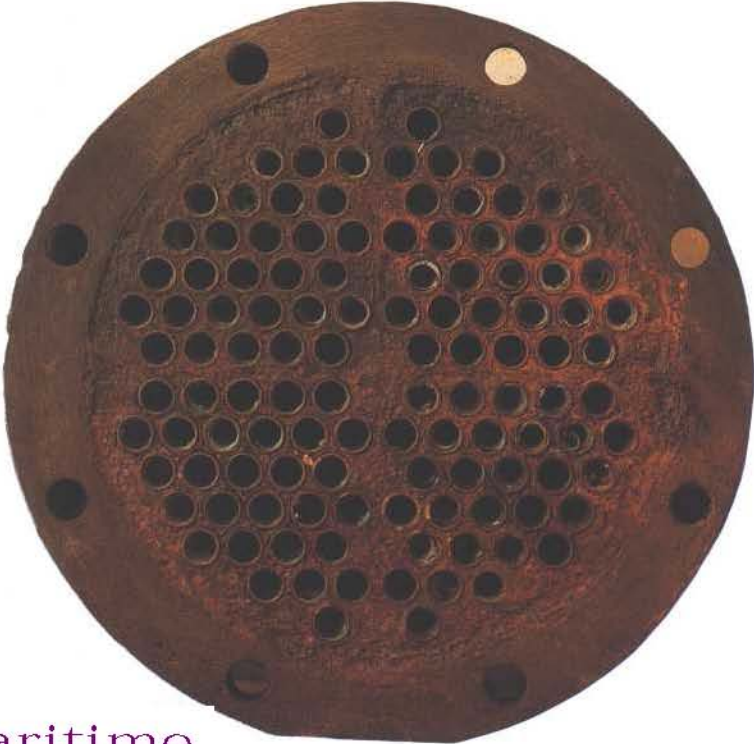


# ME Ultimate Descaler



Water Scale Solvent



The Maritime  
solution  
to equipment  
cleaning




# ME Ultimate Descaler



Water Scale Solvent

**removes**  
**lime deposits,**  
**magnesium,**  
**calcium,**

**corrosion,**  
**rust &**  
**dirt.**



*(Left)*  
*Here is an excellent example of scale formation in a two-pass shell and tube heat exchanger and end caps.*

*(Right)*  
*This is the same exchanger after being cleaned with ME Ultimate. Notice that the end cap at left contains a mixture of both calcium scale and rust. The ME Ultimate cleaning process removed both.*

# ME Ultimate Descaler

## Water Scale Solvent

**N**on-distilled water contains mineral salts, of which those of calcium and magnesium in particular, form scale. The tendency to form scale is increased when the water comes in contact with hot surfaces. Scale formation in process equipment causes billions of dollars in lost revenues due to equipment down time, increased power consumption and maintenance cost associated with scale removal. ME Ultimate provides a quick and simple method for bringing scaled process equipment back into service.

ME Ultimate is a water-based solvent containing wetting agents, corrosion inhibitors and degreasing compounds. It is designed to penetrate and remove encrusted lime scale, rust, corrosion products and dirt from water-wetted surfaces in process equipment. ME Ultimate can also be used to remove lime scale in commercial and industrial applications.

With a pleasant citrus-lime fragrance that masks the obnoxious odors normally associated with dissolving water scale and corrosion, ME Ultimate changes from a pale yellow color to a vivid bluish-purple color when it is spent. It is low-foaming and quickly releases the carbon dioxide (CO<sub>2</sub>) gas generated by the reaction of lime scale with ME Ultimate.

**Why use ME Ultimate?** The formation of scale in process equipment increases pressure drop, requiring more pumping horsepower to maintain volumetric throughput. Heat transfer surfaces gradually become fouled and thermal efficiencies decrease.

**changes  
color from  
yellow  
to purple  
when  
it is  
spent.**



**This is a visual demonstration of the color change that takes place when the ME Ultimate spent. The fresh solution is yellow and the spent solution is purple.**

Pieces of scale attach themselves to rotating equipment, i.e., pumps and mixers, and cause bearing failure. If these problems sound familiar, then you know why you need to periodically clean the lime scale and rust out of the system with ME Ultimate.

ME Ultimate provides an excellent method to clean equipment without expensive disassembly. In many applications, the cleaning can be accomplished while the system is in operation. ME Ultimate can remove scale in small, inaccessible places that cannot otherwise be cleaned.

### **Why does ME Ultimate change color?**

ME Ultimate comes in a pale yellow color that changes to a deep bluish-purple color when it is spent. There are four important advantages to this color change:

1. You know when the solution is spent and should be discarded.
2. You don't spend time circulating a spent solution.
3. The color change occurs at a pH of 5.8 to 6.0 which is well within the safe disposal range of most of the current governmental waste water regulations.

4. If the equipment is clean and ME Ultimate has not changed color, you can save it and use it again.

**Where is ME Ultimate used?** Ultimate is especially designed to safely remove lime deposits or water scale from:

- Power plant boilers and piping systems and all types of evaporating equipment

