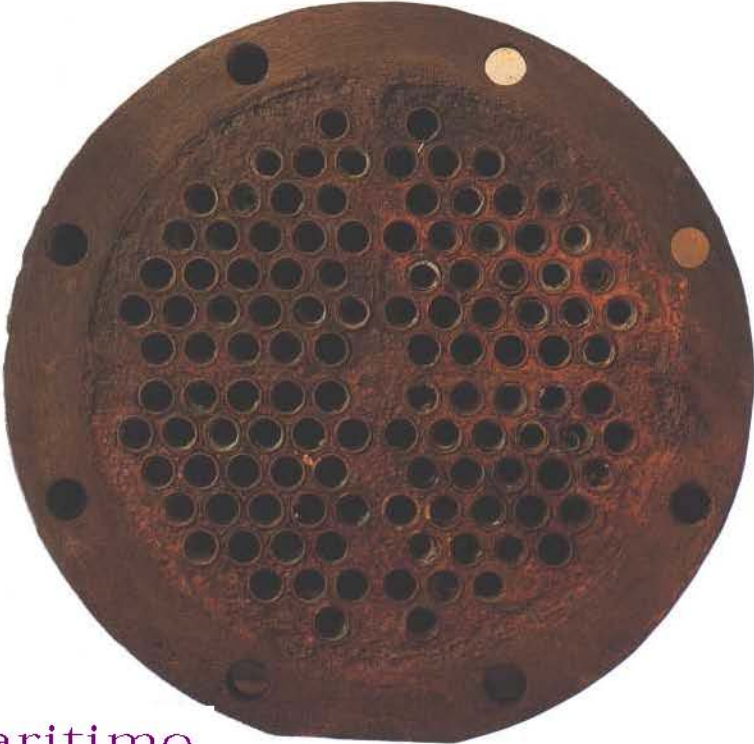


ME Ultimate Descaler



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

Non-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_2) 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



ISO
9001:2000
Registered

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is easy to use, environmentally friendly & exceeds government regulations.

- Equipment in refineries, utility companies, paper mills, chemical plants, foundries, rubber plants and other industries

- Food processing plants, meat packing plants and breweries

- Sewage disposal plants, water treating facilities and other municipal water handling operations

- Any equipment that is water cooled in any manner

ME Ultimate not recommended for use on aluminum, certain aluminum alloys, zinc (hot dipped galvanized sheet) and alloys of magnesium. It is recommended that test samples of materials in question be evaluated in the laboratory before using Ultimate to treat lime or water scale deposits on these materials.

Concentrated Ultimate solution may discolor some chromed and stainless steel surfaces. It is recommended that Ultimate be diluted 1:1 with water before using on these surfaces.

Application. Ultimate is most effectively used by circulating through the equipment to be cleaned. When possible, circulation should be up-flow. Ultimate can also be used by filling the equipment to be cleaned and allowing it to set until scale has disappeared. The cleaning operation normally takes two to six hours. The equipment should be vented at all times since carbon dioxide gas evolves during the disassociation of the lime scale. For more detailed instructions, contact your Maritime distributor.



By using Ultimate to clean your vacuum pump, you can save hundreds of dollars in energy costs, downtime and labor. If your vacuum pump starts to draw high amps or if it should suddenly seize, Ultimate can do the job simply and easily.

Availability. Ultimate is available in premium D.O.T. 34 approved 55 and 30 gallon reusable drums. It is also available in 5 gallon polyethylene pails.

Ultimate meets or exceeds government regulations. Ultimate is non-toxic, non-corrosive, non-flammable and non-hazardous when used as directed. The ingredients in Ultimate when spent, are not listed as hazardous waste, nor does it possess any of the hazardous characteristics specified in 40 CFR 261. Ultimate has a low B.O.D.

ME Ultimate is U.S.D.A. approved acceptable for use as an acid cleaner in all departments of official establishments operating under the Federal Meat, Poultry, Shell Egg Grading and Egg Products Inspection Program. ME Ultimate meets all the requirements of the U.S. Department of Transportation regulations given in 173.240 (a) for shipment without hazardous warning. Additional information on compliance

with governmental regulations can be obtained by contacting **Maritime Expressions.** Ultimate is easy to use, environmentally friendly and exceeds government regulations.

Consider the following advantages of using Ultimate

- Does not require premixing
- Does not separate
- Changes color when spent
- Non-hazardous • Non-Corrosive
- Non-Flammable • Pleasant Odor
- Free Rinsing • Low-Foaming

A product of...

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