ALPHA DESCALER dissolves waterscale, lime, and removes mud and rust deposits safely, quickly and efficiently!

Specifications

- 1. ALPHA DESCALER is a non-hazardous, non-corrosive, non-injurious, non-toxic, non-fuming, yet fully biodegradable in 10 days acid replacement descaler, heavily fortified with wetting and penetrating agents which actually dissolves water scale, lime, and removes mud, rust, and other water formed deposits from water operated equipment. ALPHA DESCALER FG is usable for potable water systems and where possible contact with food can occur and for descaling equipment contacting food. Neither product contains any traditional but often hazardous buffered acids such as hydrochloric, sulfonic, citric, or phosphoric. Products are also excellent rust removers but simply applying to a rusty surface and after allowing it to sit or soak for 10 to 15 minutes the rust can be easily wiped off. ALPHA DESCALER FG may also be used as a treatment to remove scale buildup over time in a water system and to prevent or I nhibit further buildup.
- 2. ALPHA DESCALER FG is certified to NSF/ANSI 60 for use as a cleaner in potable water systems. NSF Registered for use in beverage, pharmaceutical, bottling, poultry, and other food processing plants.
- 3. ALPHA DESCALER & ALPHA DESCALER FG is non-corrosive, but its application may expose pre-existing under deposit corrosion (pitting, holes or similar damage) that can result in leaks in pipes, equipment or systems. Corrosion tests are readily available on typical materials used in heat exchangers and other water cooler, water heated and water operated equipment.

- 4. ALPHA DESCALER & ALPHA DESCALER FG should be used as directed and at any temperature within the operating limits of between 0°F / -18°C and 180°F / 82°C. It may also be used at elevated temperatures up to its boiling point but caution due to the effects elevated temperatures itself may have on other materials in the system. If the solution does freeze and then thaws, there will be no performance reducing results. Please consult the manufacturer when temperatures above 180°F / 82°C are encountered.
- 5. There is no estimated life expectancy for unopened containers of product although generally up to three years is acceptable. Opened product should be used within one year.
- 6. Although almost any chemical reaction will react faster under elevated temperatures, ALPHA DESCALER and ALPHA DESCALER FG should be applied at ambient temperatures (65°F / 18° C to 95°F / 35°C) with full effectiveness and results obtainable. However it may be used at elevated temperatures up to its boiling point. Under very high pressures it has even been used as high as 400° F / 204° C
- 7. The solution is NOT exothermic, while dissolving water scale or other water formed deposits and does not give off strong fumes when operating. In fact the products are considered essentially non-fuming
- 8. ALPHA DESCALER FG has the ability to dissolve approximately two and a half pounds (over 1 Kilo) of calcium carbonate scale per U.S. gallon while at 70°F / 21°C, and in concentrated form. ALPHA DESCALER FG EXTRA STRENGTH has the ability to dissolve approximately five pounds (approx.. 2 Kilo) of calcium carbonate scale per U.S. gallon while at 70°F / 21°C, and in concentrated form If the product is diluted, it will still dissolve the same capacity based on original concentration, but will require additional circulating time. ALPHA DESCALER and ALPHA DESCALER EXTRA STRENGTH has only slightly less the capacity of the FG versions because of additives added.

- 9. The concentrated solution can be held, safely, in the open hand without deleterious effects. However, if mild irritation occurs, a simple soap and water rinse is all that is required.
- 10. The solution does not exude any obnoxious or toxic vapors and is considered non-fuming.
- 11. An exception to number 10 is that irritating vapors may occur when encountering high concentrations of sulfur, chlorine, or liquid TNT or any material that in itself may be come hazardous when dissolved. Please contact the manufacturer before proceeding under these circumstances or review the SDS of the chemical that ALPHA DESCALER may come in contact with for any incompatibilities.
- 12. ALPHA DESCALER and ALPHA DESCALER FG does not corrode, erode, attack, oxidize or have other deleterious effects on virtually any metal or materials commonly found in water systems such as: COPPER BRASS BRONZE IRON RUBBER STEEL (INCLUDING STAINLESS STEEL) TITANIUM GLASS or other materials found in heat exchangers, vacuum pumps, evaporators, condensers, and other water operated equipment when used as directed.
- 13. An exception to number 12 is that when using 100% concentrated (non-diluted) ALPHA DESCALER or ALPHA DESCALER FG on magnesium, zinc, galvanized metal, and/or aluminum, where there may be some discoloration. Furthermore, polished chrome and some alloys of stainless steel could become discolored. In these situations dilute the product 50%. In general, if the alloy is designed for use in a water system (aluminum engine block, aluminum mold, etc.), the alloy should be compatible with the solution. Otherwise, dilute 50% or more with water when cleaning.
- 14. Agitating or circulating ALPHA DESCALER or ALPHA DESCALER FG with compressed air is not recommended. Please consult the manufacturer with any questions.

- 15. The solution does not require neutralizers and it is free rinsing with water. Product itself is 100% biodegradable in 10 days.
- 16. ALPHA DESCALER and ALPHA DESCALER FG is an electrolyte, as are most cleaning agents. An electrolyte is any liquid that will transfer small electrical currents. Examples: salt water, vinegar, cola. An electrolyte may cause plating in some types of equipment. This means a transfer of small amounts of one metal onto another metal according to the galvanic corrosion chart. In some instances, a thin coating of copper may be plated onto a steel drum while circulating an electrolyte. The only time plating occurs is when two dissimilar metals are in an electrolytic solution.
- 17. The solution has the ability to dissolve deposits from some equipment while in operation and without shutdown, either through the cooling tower or if auxiliary coolers are incorporated. ALPHA DESCALER FG in particular may also be used as a water treatment.
- 18. The solution has the properties to be mailed or shipped by any private or commercial carrier without restrictions. Air carriers for emergency deliveries may ship ALPHA DESCALER or ALPHA DESCALER via next day air.
- 19. The solution is packaged and shipped in 5-gallon jugs (20 liters), and 55-gallon drums (208 liters), 275 gallon (1040 liters) totes, and tankers.
- 20. Most cleaning applications can be accomplished within an average of two to four hours but may be circulated much longer is necessary.
- 21. ALPHA DESCALER and ALPHA DESCALER FG is designed to be used by itself or diluted with water and water only.
- 22. ALPHA DESCALER and ALPHA DESCALER FG should be stored in its original or similar HDPE container and properly sealed when not in use.

23. ALPHA DESCALER and ALPHA DESCALER FG carry a triple zero Hazardous Materials Information System score, an A rating with regards to PPE's, are 100% biodegradable in 30 days or less per EPA, Designed for the Environment, OECD and Hach Reactor method guidelines and meet or exceed stringent Direct Release Guidelines for 10 day bio-degradation. The products are non-regulated by the US D.O.T., CANADIAN TDG, IMO and IATA. and are classified as non-voc, non-corrosive, non-mutagenic, and non-toxic. ALPHA DESCALER and ALPHA DESCALER FG product show no potential for the generation of carbon dioxide under NIOSH 7903, OSHA & ACGIH testing protocols. Both product formulas meet or exceed EPA and DEP restrictions regulating NPDES (National Pollutant Discharge Elimination Systems).