



## 690A-ES RUST & SCALE REMOVER

SPECIALTIES FOR MAINTENANCE AND SANITATION SINCE 1947



FOREMOST 690A-ES ELIMINATES LOSS OF HEAT TRANSFER CAUSED BY SCALE.

**HIGH POWERED,  
MAXIMUM SPEED  
REMOVAL OF RUST,  
SCALE, CORROSION**

### FOR DE-SCALING:

- Boilers
- Bottle Washers
- Water Systems
- Condensers
- Heat Exchangers
- Dishwashers
- Piping
- Coolant Systems

## **HIGHLY ACTIVE DE-SCALING ACID FOR INDUSTRIAL & FOOD PLANT USE**

**INHIBITED**—Provides greatest possible safety to metals. Recommended for use on iron, steel, ferrous alloys, copper and copper alloys. Quickly dissolves scale with maximum protection to metal.

**VERSATILE**—Digests lime, calcium carbonate and hard water scale build-ups. Removes both mild and severe rust or corrosion.

**ECONOMICAL**—Foremost 690A-ES is a concentrate. In normal use, dilute with 2 to 5 parts water, depending on de-scaling to be performed.

**SAVES LABOR AND MATERIAL**—By doing more work per ounce of solution, and effecting faster removal, Foremost 690A-ES concentrate can materially reduce labor cost, as well as offer longer solution life.

### **— NOTE —**

Heat exchange equipment performs at peak efficiency if kept scale free with FOREMOST 690A-ES.

Rev. 1-20-14

**Packed in 55 Gallon Drums**

Toll Free: 800-238-5150  
Local: 901-363-4340  
Fax: 901-375-3600

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# TECHNICAL DATA

## FOREMOST 690A-ES RUST & SCALE REMOVER

Rev. 3-6-17

**DESCRIPTION:** An inhibited, highly acidic product designed for efficient and thorough removal of rust, scale and oxidation from iron, steel and ferrous alloys, copper and copper alloys. It is excellent for descaling bottle washing machines, metal piping, dishwashing machines, steamcleaner coils, condensers, dairy equipment, boilers, storage tanks, ship tanks, gas and water meters and for general industrial descaling purposes.

**DIRECTIONS:** **GENERAL IMMERSION VAT CLEANING:** Fill vat with product diluted with water to 5 to 50% depending upon the condition of the surface to be cleaned. The vat should be constructed of crockery, glass, wood, rubber, acid resistant brick, or plastic. Immerse parts and allow sufficient contact time to clean the surfaces, from 1 minute to 2 hours depending upon the type, amount, and condition of the contamination. Remove, rinse with clean water and unless further processing is to be done immediately, neutralize with an alkaline solution. Baking soda at 4-6 ounces per gallon of water will be sufficient. Neutralization retards, does not prevent further oxidation and a protective coating such as Foremost 1335 Rust Preventative Coating should be applied to the metal surfaces.

**DESCALING DISHWASHING MACHINES:** Fill tank half full of water and add  $\frac{3}{4}$  gallon of Foremost 690A-ES Rust & Scale Remover for each 15 gallons of tank capacity. Then fill the tank to overflow level with water. Operate machine for 10 to 15 minutes or until the scale is dissolved. Drain the acid solution. Fill tank with fresh water, add double the normal charge of detergent and operate machine for 10 to 15 minutes. Drain and flush with fresh water.

**DESCALING BOTTLEWASHING MACHINES:** Bottle washing machines should be descaled at a time when they may be completely emptied of bottle washing solution. If the compartment walls need descaling rather than the carrier, each compartment must be filled with a solution of Foremost 690A-ES Rust & Scale Remover and allowed to stand until scale is removed. For economy, after one compartment is cleaned the solution may be pumped into the next one until all compartments have been cleaned. The solution concentration may be varied from one part Foremost 690A-ES Rust & Scale Remover to 2-5 parts water depending upon amount of scale present. As cleaning progresses from tank to tank the strength of the solution will be reduced due to its reaction with the scale and additional Foremost 690A-ES Rust & Scale Remover must be added to maintain its efficiency.

If the carrier is to be descaled, which is the more frequent reason for descaling, the following procedure is followed: Fill one or more compartments approximately  $\frac{3}{4}$  full with a solution of Foremost 690A-ES Rust & Scale Remover at the rate of 1 part concentrate to 2-5 parts water, depending upon amount of scale present. The number of compartments filled will be determined by the degree of economy and speed desired. Operate the machine until scale has been removed. Heating up to about 150°F. will speed up the action. After descaling is complete, empty machine and rinse thoroughly. Follow with a rinse using a dilute solution of Bottle Washing Compound, if desired, or add a slightly increased amount of compound when recharging the machine.

**DESCALING BOILERS, CONDENSERS, STEAMCLEANER COILS, ETC.:** Drain equipment and flush with water for removal of loose sediment so as to insure complete descaling action. With all openings closed, fill equipment to operating level with a mixture of 1 part Foremost 690A-ES Rust & Scale Remover and 2 to 3 parts water, depending upon the severity of the deposit to be removed. Allow solution to remain in the equipment for 4 to 6 hours in most cases. The time will vary according to the extent and nature of the scale deposit. In some cases, overnight treatment is required. Circulation increases the efficiency and rate of removal. After scale has been removed, drain the equipment. The solution may be discarded or stored and re-used. (The strength of the acid solution is reduced by use and should be reformed by the addition of more Foremost 690A-ES Rust & Scale Remover when being re-used.) Finally, fill equipment with fresh water, rinse thoroughly and flush out. Close the drain and fill with approximately 1% solution of a suitable alkali such as Foremost 45A Odorless Steamcleaner. Equipment is then drained and ready to place into operation.

**PRECAUTIONS:** **KEEP OUT OF REACH OF CHILDREN.** Contains hydrochloric acid. Causes severe eye and skin burns. Do not get in eyes, on skin, or clothing. Causes severe respiratory tract irritation. Do not breathe vapors. Vapor extremely irritating. Use with adequate ventilation. Do not take internally. When handling always wear chemical splash goggles, face shield, rubber gloves and protective clothing.

**FIRST AID: EYES AND SKIN:** In case of contact, immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes under shower. Get medical attention immediately. **INGESTION:** If conscious, give large amounts of lime water or milk of magnesia or water. Get medical attention immediately. **INHALATION:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Before using this product, read the Safety Data Sheet (SDS) for more detailed information regarding safe handling.

### FACTS

1. Fast
2. Concentrated
3. 100% active
4. Versatile
5. Inhibited
6. Economical

### BENEFITS

1. Dissolves most oxidation and water scale in minutes
2. Diluted with water to the desirable strength as dictated by the job at hand
3. Full strength active acid-no fillers or other inert ingredients
4. Descals boilers, bottle washers, water systems, heat exchangers, condensers, piping, cooling systems, dishwashers, etc.
5. Reduces acid attack on ferrous metals during descaling process
6. Lowers time and labor costs—provides extremely long vat solution life