

Luster-On Products

Technical Data Sheet

Luster-Fos 1410LF **Liquid Iron Phosphate for Mixed Runs of Steel, Zinc and Aluminum**

I. GENERAL DESCRIPTION:

Luster-Fos1410LF is a liquid iron phosphate designed for mixed runs of steel, zinc, and aluminum. Simultaneously, Luster-Fos 1410LF cleans and produces an excellent pre-paint iron phosphate conversion coating in one operation at temperatures from 120° - 175° F. It may be applied by either immersion or spray washers. It utilizes a low foam surfactant formulation, which makes it especially suited for spray application.

Properly applied, Luster-Fos 1410LF meets the requirements of the following Federal and Military Specifications: QQ-P-416C, Type III; TT-C-490B, Type II; Mil-C-46487, Grade I and II (5 stages mandatory) and Mil-F-14072A.

II. TYPICAL CYCLE - 3-STAGE IMMERSION APPLICATION:

A. Luster-Fos 1410LF

Concentration: 3% to 5% by volume of water.

Temperature: 120° - 175° F.

Time: 2 to 5 minutes.

pH: 4.2 to 4.8 (4.5 is optimum).

To raise pH: Use LUSTER-ON 720 in small increments.

To lower pH: Use LUSTER-ON 62 in small increments.

B. Flowing cold water rinse for 30 seconds.

C. Luster-Fos 900 or Luster-Fos 960 Acid-Seal.

LUSTER-FOS 1410LF (continued)

III. TYPICAL CYCLE - 3-STAGE SPRAY APPLICATION:

A. Luster-Fos1410LF

Concentration: Luster-Fos1410LF - 2 to 4% by volume of water.

Temperature: 120° to 160°F.

Time: 30 seconds to 2 minutes.

pH: 4.2 to 4.8 (4.5 is optimum).

B. Water rinse for 30 seconds.

C. Luster-Fos 900 or Luster-Fos 960 Acid-Seal.

IV. CONTROL:

The pH of the initial charge will be below 4.2. Use LUSTER-ON 720 to raise pH. To determine exactly the amount of LUSTER-ON 720 needed to raise the pH to 4.2 to 4.8, proceed as follows:

A. Pipette 10 ml of the solution into an Erlenmeyer flask or sample tube.

B. Add 4 or 5 drops of congo red indicator. The color will turn a deep blue.

C. Fill a clean 5 ml calibrated pipette or buret with 0.1 N Sodium Hydroxide.

D. Titrate a few drops at a time until the solution changes from blue to bright orange-red. Record this number.

E. **CALCULATION:**

$\text{ml NaOH} \times 8 = \text{fluid ounces of Luster-Fos 720 required per 100 gallons of tank solution.}$

NOTE: Titration and measurement of LUSTER-ON 720 must be carried out accurately to obtain pH range of 4.2 to 4.8.

LUSTER-FOS 1410LF (continued)

IV. CONTROL (continued):

TITRATION FOR CONCENTRATION

- A. Before checking titration, make sure pH of solution is between 4.2 and 4.8; otherwise, a false reading will be obtained.
- B. Pipette 10 ml of the Luster-Fos 1410LF solution into an Erlenmeyer flask or sample tube.
- C. Add 10 ml of water and 4 or 5 drops of phenolphthalein indicator.
- D. Titrate with 0.1N Sodium Hydroxide to a pink end-point.
- E. **CALCULATION:**

ml 0.1N NaOH x 0.65 = % by volume of Luster-Fos 1410LF.

Note: A continually high pH reading above pH 4.8 is an indication of the drag-in of alkaline soils. The Luster-Fos 1410LF solution should be changed and rinsing should be checked to assure that it is adequate.

V. EQUIPMENT:

Black iron or steel holding tanks, pipes, nozzles, and heating coils are acceptable. T316 or T304 stainless steel is preferred. Electric immersion coils should be constructed of T316 or T304 stainless steel.

VI. DISPOSAL:

Treatment and disposal must be in accordance with Federal, State and Local Regulations.

VII. STORAGE:

Keep container closed when not in use. Keep from freezing - will restore after thawing.

VIII. PACKAGING:

508 pound net poly-lined drums.

IX. SAFETY AND HANDLING PRECAUTIONS:

Luster-Fos 1410LF is a highly acidic industrial material containing fluorides.

LUSTER-FOS 1410LF (continued)

IX. SAFETY AND HANDLING PRECAUTIONS (Continued):

DANGER! CAUSES SEVERE BURNS THAT MAY OR MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE. HARMFUL IF SWALLOWED OR INHALED.

Avoid contact with eyes, skin, and clothing.

Wear safety goggles, rubber gloves and other suitable protective clothing when handling.

Wash thoroughly after handling.

Avoid inhalation of mist.

Use with adequate ventilation.

Do not take internally.

Avoid prolonged contact with glass, ceramic or concrete.

If contact is made, flush promptly and thoroughly with water.

Keep concentrate away from combustible, organic or readily oxidizable materials.

Avoid contact or mixing with materials containing chlorine.

Before opening container, loosen closure slowly to relieve any pressure build-up. Keep container closed when not in use.

In case of spills and leakage, flush area with plenty of water. Do not mop up or dry up with paper, rags or sawdust.

Store in a cool place out of direct sunlight at temperatures below 120°F.

FIRST AID: In case of contact or suspicion of contact, prompt medical attention is absolutely necessary.

EYES: Immediately flush with cool water for 15 to 30 minutes. Hold eyelids apart while flushing to insure contact of water with all surfaces of eyes and lids.

SEEK MEDICAL ATTENTION IMMEDIATELY!

SKIN: Immediately flush with large quantities of cool water until all acid is removed, paying particular attention to the skin under the nails. Immediately remove contaminated clothing and shoes. **SEEK MEDICAL ATTENTION IMMEDIATELY!** Wash clothing and shoes before reuse.

IF SWALLOWED: Rinse out mouth thoroughly with water. Give water to drink without delay. Follow with milk or 2 ounces of Milk of Magnesia, then soapy water or salty water (1 tablespoon per glass). **SEEK MEDICAL ATTENTION IMMEDIATELY!**

KEEP OUT OF REACH OF CHILDREN!

LUSTER-FOS 1410LF (continued)

IX. SAFETY AND HANDLING PRECAUTIONS (Continued):

FOR INDUSTRIAL USE ONLY

This product is sold for industrial use only. Our suggestions for its use are based upon tests and procedures, which from experience we believe to be reliable. Since the use is beyond our control, neither we nor our distributors can assume responsibility, either expressed or implied for the results and/or for violation of any patents or any claims resulting from such use.

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