

Aquaease[®] PL 735

Aquaease PL 735 is a moderately alkaline (pH 11.0 to 11.5), highly chelated, low-foaming liquid cleaner for application in any of the following types of power spray machines: monorail conveyor, continuous belt, spiral washers or cabinet. It may also be used as a soak cleaner or an ultrasonic cleaner.

Aquaease PL 735 may be used to clean ferrous metals, copper, brass alloys, bronze alloys, stainless steel, nickel, and nickel-clad stock. The Aquaease PL 735 will clean a variety of metal processing lubricants; synthetic lubricants, sulfurized and chlorinated oils, lard oil based, etc. It is very effective at removing zinc phosphate and soap-based lubricants from drawn steel substrates.

Aquaease PL 735 was designed primarily to remove zinc phosphate and soap-based lubricants from draw steel parts where the customer desires a lower pH (11.0 to 11.5) than that offered by caustic based cleaners (pH 13.0 to 14.0). It can be used for in process cleaning between draws or prior to heat treatment. Aquaease PL 735 has very high free rinsing and non-residue forming properties which are very desirable if parts are to enter heat-treating furnaces after washing. Caustic and silicate cleaners can leave undesirable alkaline residues, which can foul the furnace over time.

Aquaease PL 735 is also ideal as the first alkaline cleaner in phosphating lines. The cleaned surfaces are well suited to produce the smoothest and finest phosphate coatings.

This product contains phosphate builders, please consult with your EHS staff regarding waste disposal requirements.

Features & Benefits

Biodegradable surfactant system	Tends to split most oils from cleaner
Silicate and nitrite free cleaners are ideal for use where heat-treating follows cleaning operations	Contains no cyanides, silicates, caustic, nitrates or nitrites
Low foam to no foam product	Liquid form makes it easy to add. No dangerous splatters or dissolution problem

Operating Conditions

Concentration	2% – 10% Optimum 5% for most applications
Temperature	150°F – 180°F (49°C – 82°C)
Equipment	Mild steel tanks and heating coils

Aquaease PL 735 may be operated at a wide temperature range, 120°F to 200°F. Low temperatures may be used for light soils, while higher temperatures are recommended for removing phosphates and lubes or heavy oils.

Titration Method

1. Pipette a 50 mL sample into a 250 mL Erlenmeyer flask and dilute with 100 mL water.
2. Add 7 drops Methyl Orange indicator and mix.
3. Titrate with 0.5 N Hydrochloric Acid until a color change of yellow to orange pink occurs.
4. Record mL used.

Calculation

$$\text{Concentration} = \text{mL } 0.5 \text{ N HCl} \times 0.379$$

Test Kit Method

1. Fill test bottle $\frac{1}{4}$ of water.
2. Using syringe, add 5 mL Aquaease PL 735 solution to the bottle.
3. Add 5 drops Methyl Orange indicator.
4. Add dropwise 0.72 N Hydrochloric Acid until solution turns from yellow to red orange.
5. Record the number drops used.

Calculation

$$\text{Concentration} = \# \text{ Drops } 0.72 \text{ N HCl} \times 0.263$$

Waste Disposal

Discharge rinse waters and spent solutions to a permitted wastewater treatment system. In order to be completely informed on the latest regulations for your area, please contact the local authorities.

Caution

Aquaease PL 735 is an alkaline product (pH of the concentrate being 11.0 to 11.5) and should be handled accordingly. Read and thoroughly understand the material safety data sheet for Aquaease PL 735 prior to handling or working with it. Avoid skin and eye contact. Wear protective clothing, goggles, and gloves. If skin or eye contact does occur, flush exposed areas immediately with clean cold water for at least 15 min. Contact a doctor promptly if eye contact has occurred.



Product Bulletin

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Our People. Your Problem Solvers.

For more information on this process,
please call us at 203.756.5521 or email: techservice@hubbardhall.com

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