# Aquaease™ PL 918

Aquaease PL 918 is low foam, heavy duty caustic, chelated alkaline soak, ultrasonic, electro, and spray cleaner for steel, stainless steel, nickel, copper, and copper alloys.

## Features & Benefits

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|---|---|
| Removes light surface oxides | Produces a metallurgical clean surface |
| Excellent particulate soil removal when used as a spray | Effective at low operating temperatures |
| Biodegradable wetting system | Easily waste treated |
| High detergency | Removes light rust on steel and 400 series stainless steel |

## Typical Applications

- Spiral spray washing stamped parts
- Spiral spray washing of deep drawn parts
- General purposed soak (immersion) cleaner & electro cleaner
- Application in rack, barrel, and continuous strip plating lines
- Light de-rusting of steel and 400 series stainless steel parts
- Cleaning nickel clad parts such as battery cans
- Parts cleaning prior to plating, black oxide, or phosphate
- Heavy duty steam cleaning of steel and Stainless-Steel tanks and process equipment

## Operating Conditions

Immersion (Rack or Barrel) and Spray:

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| Concentration | 1% – 20% |
| Temperature | 90°F – 200°F |
| Time | 1 – 6 min |
| Equipment | Mild steel tanks and heating coils |
| Ventilation | Suggested |

Note: For use in a power spray machine (spiral spray washer, belt washer, monorail washer) operating concentration may range from 1 to 5% (vol) and operating temperature 90° to 165°F.Immersion applications concentration range begins at 5% and operating temperature range from 100°F+.

Electro-Clean (Anodic, Cathodic, and PR):

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|---|---|
| Concentration | 10% – 25% |
| Temperature | 100°F – 200°F (38°C – 93°C) |
| Rack current density | 40 – 80 amps/ft$^2$<br>(4.0 – 8.0 amps/dm$^2$) |
| Barrel current density | 10 – 40 amps/ft$^2$<br>(1 – 4 amps/dm$^2$) |
| Equipment | Mild steel tanks and heating coils |

Note: The above concentrations given are for a wide variety of applications. For the average jobs, the concentration may range between 15 to 20% (volume). Consumption of the cleaner is affected by reaction with soils, neutralization of fatty acids, and drag out of the cleaner solution.

Additions to maintain desired concentration are recommended.

Automatic Analysis Control
Aquaease PL 918 additions and analysis control may be readily achieved by automatic means. Product additions are automatically dispensed by use of conductivity analysis control. Maintaining the cleaner bath at optimum operating concentration significantly contributes to minimizing cleaning problems. It also is compliant to SPC (Statistical Process Control) where NADCAP and ISO requirements are critical to the operation. Consult Hubbard Hall's technical staff for set up procedure.

## Titration Method

1. Pipette a 10 mL sample into a 250 mL Erlenmeyer flask and dilute with 50 mL of distilled water.
2. Add 4 to 8 drops Methyl Orange indicator and mix.
3. Titrate with 0.5 N Hydrochloric Acid until the color changes from orange to pink.
4. Record mL used.

Calculation

$$Concentration = mL\ 0.5\ N\ HCl \times 0.69$$

## Test Kit Method

1. Fill bottles 1/3 full of water.
2. Add 1/2 mL of Aquaease PL 918 solution
3. Add 4 to 8 drops of Methyl Orange indicator.
4. Add 0.72 N Hydrochloric Acid drop wise to a pink endpoint.
5. Record number of drops used.

Calculation

*Concentration = # Drops 0.72 N HCl x 0.71*

## Waste Disposal

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

## Caution

Read and understand the Safety Data Sheet prior to handling Aquaease PL 918.

**WARRANTY:** THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.

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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**

Hubbard-Hall holds certifications for **ISO 9001:2015**, Responsible Distribution, as accredited by the **ACD** (Alliance for Chemical Distributors) and as a **Women-Owned Small Business**, as well as maintaining an association with **Omni-Chem**[136].