



# Aquaease™ E 9354

Aquaease E 9354 is a powdered, phosphate and chelating agent free, alkaline product which may be used as an anodic or cathodic electro cleaner for brass alloys, copper, zinc die castings, slush castings, and lead alloy castings. Aquaease E 9354 is also effective when used to electro clean ferrous alloys.

## Features & Benefits

Use on multiple substrates	Good hard water tolerance
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## Physical Data

Solubility in water	Appreciable
Appearance and odor	White or off-white powder

## Operating Conditions

Concentration	4 – 10 oz/Gal (30 – 75 g/L)
Temperature	110°F – 125°F (43°C – 51°C)
Time	20 – 45 sec
Polarity	Anodic
Current density	10 – 30 amps/ft <sup>2</sup> (1.0 – 4.0 amps/dm <sup>2</sup> )
Equipment	Mild steel tanks, heating coils and anodes
Ventilation	Recommended

Note: Increasing operating temperature above 125°F will tend to darken die-casting.



### Brass and Copper

Concentration	4 – 10 oz/Gal (30 – 75 g/L)
Temperature	110°F – 160°F (43°C – 71°C)
Time	20 – 90 sec
Polarity	Anodic or cathodic
Current density	10 – 40 amps/ft <sup>2</sup> (1.0 – 4.0 amps/dm <sup>2</sup> )
Equipment	Mild steel tanks, heating coils and anodes
Ventilation	Recommended

### Tank Make Up Procedure

Considerable heat is generated when Aquaease E 9354 is dissolved in water. A new solution should be prepared by filling the tank half full of warm water (approx. 100°F, 37°C) and slowly adding Aquaease E 9354 while continuously stirring. After the Aquaease E 9354 has been dissolved, add the remainder of the cold water. Heat or cool to desired operating temperature before use.

Note: When adding Aquaease E 9354 to an operating solution, add slowly to avoid solution eruption.

### Maintenance Note for Electro Cleaner

When recharging the tank with a fresh solution, be sure that the cathodes are free of sludge and that the bus bars are bright and clean. Sludge on cathodes and dirty bus bars act as insulators, which will consequently reduce the current density.

## Titration Method

1. Pipette 5 mL of Aquaease E 9354 solution into 250 mL Erlenmeyer flask.
2. Add 50 mL of water and 4 to 5 drops Phenolphthalein indicator.
3. Titrate with 0.5 N Hydrochloric Acid until the solution turns to a clear end point.
4. Record mL used.

Calculation

$$\begin{array}{ll} \text{Factor (oz/Gal)} & 1.02 \\ \text{Factor (g/L)} & 7.58 \\ \text{Concentration} = \text{mL } 0.5 \text{ N HCl} \times \text{Factor} & \end{array}$$



## Test Kit Method

1. Fill bottle 1/3 full of water and add 1/2 mL cleaner sample.
2. Add 3 drops of Methyl Orange indicator and swirl to mix well.
3. Titrate with 0.72 N Hydrochloric Acid, counting the drops, until the solution turns to a clear endpoint.
4. Record the number of drops used.

Calculation

Factor (oz/Gal) 0.58

Factor (g/L) 4.35

*Concentration = # Drops 0.72 N HCl x Factor*

## Waste Disposal

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

## Caution

Aquaease E 9354 is an alkaline product and should be handled accordingly. Avoid skin and eye contact. Wear protective clothing, goggles, and gloves. Flush exposed areas immediately with clean, cold water. Contact a doctor promptly in case of injury. Consult SDS for details.



**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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For more information on this process,  
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