

Aquaease[®] SL 689

Aquaease SL 689 is a liquid heavy-duty alkaline soak for cleaning ferrous metals, copper, magnesium alloys and brass alloys. Aquaease SL 689 may be used in either a rack or barrel plating line or in an AGI-dip soak cleaning operation. Aquaease SL 689 will clean a variety of fabrication oils and synthetic lubricants from the above metals.

Aquaease SL 689 is a liquid version of Aquaease S 986, in that may be substituted for Aquaease S 986.

When mixed tank side with Sodium Hydroxide, **Aquaease SL 689** may also be used as a standalone or combo electro-cleaner

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

Features & Benefits

Liquid heavy-duty alkaline soak cleaner	Can be used in either rack or barrel plating line
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Operating Conditions

Concentration	5% – 12%
Temperature	130°F – 200°F
Time	1 – 6 min
Equipment	Mild steel tanks and heating coils
Ventilation	Not required

Note 1: Lower operating temperatures (130°F to 150°F) Should be reserved for brass alloys.

Note 2: An overflow for skimming off floating soils is recommended when Aquaease SL 689 is being used as a soak.



Cleaning
the Hard to Clean



Finishing
the Hard to Finish



Treating
the Hard to Treat

Recommended Application Electro Cleaner

	Range	Optimum
Aquaease SL 689	½% – 4%	2%
50% Liquid Caustic Soda	5% – 8%	6.5%
Ratio Liq. Caustic: Aquaease SL 689	2 – 10:1	3.25:1
Current Density (Rack)	50 – 120 ASF	As required
Current Density (Barrel)	5 – 20 ASF	As required
Temperature	160°F – 190°F (71°C – 88°C)	175°F (79°C)
Time	45 sec – 3 min	As required
Agitation	Solution movement or mild air	As required

Note: Don't premix Aquaease SL 689 & 50% Liquid Caustic Soda!! The solution will not be stable. Always store and add both products separately.

The ratio of Aquaease SL 689 and 50% Liquid Caustic Soda can be modified to provide simultaneous soak and electro cleaning in one process tank.

Note: The high alkalinity of Aquaease SL 689 & Liquid Caustic Soda solutions will discolor brass parts. Aluminum and Zinc parts will be severely etched. Your Hubbard-Hall sales representative or the corporate technical center will be pleased to recommend a suitable soak cleaner for these sensitive metals and electro cleaner for brass and zinc.

Titration Method(Aquaease SL 689 Only)

1. Pipette a 20 mL sample into a 250 mL Erlenmeyer flask.
2. Add 30 mL water and 8 drops Congo Red indicator into flask. Swirl flask to insure complete mixture.
3. Titrate with 0.5 N Hydrochloric Acid until solution turns from red to purple.
4. Record mL used.

Calculation

$$\text{Concentration} = \text{mL } 0.5 \text{ N HCl} \times 0.91$$



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Test Kit Method(Aquaease SL 689 Only)

1. Fill test kit bottle 1/3 full of water.
2. Using syringe, add 1 mL sample of Aquaease SL 689.
3. Add 8 drops Congo Red indicator and swirl to mix well.
4. Add 0.72 N Hydrochloric Acid dropwise, counting the drops, until the color changes from red to purple.
5. Record the number drops used.

Calculation

$$\text{Concentration} = \# \text{ Drops } 0.72 \text{ N NaOH} \times 0.83$$

Waste Disposal

Discharge to a disposal system. To be completely informed on the latest regulations for your area, please contact the local authorities.

Caution

Aquaease SL 689 is an alkaline product and should be handled accordingly. Avoid skin, eye and oral contact. Wear protective clothing, gloves and goggles when handling the product. Flush exposed areas immediately with clean, cold water. Contact a doctor immediately in case of injury.

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.

Our people. Your problem solvers.

For more information on this process please call us at

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