



# Aquaease<sup>®</sup> LS 931

Aquaease LS 931 is a heavy duty, caustic, liquid, alkaline soak cleaner for cleaning ferrous metals, copper, magnesium alloys, and brass alloys. Used in either a rack or barrel plating line or in an agi-dip soak cleaning operation, Aquaease LS 931 will clean a variety of fabrication oils and synthetic lubricants from the above metals.

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

## Features & Benefits

Heavy duty emulsifying cleaner	Emulsifies oils
Highly caustic	Saponifies greases

## Physical Data

Specific gravity	1.24
Solubility in water	Complete
Appearance and odor	Clear, amber liquid
pH	14.4

## Operating Conditions

Concentration	6% – 15%
Temperature	130°F – 200°F
Time	1 – 6 min (typical)
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 used as a soak.



## Titration Method

1. Pipette a 20 mL sample into a 250 mL Erlenmeyer flask.
2. Add 30 mL water and 5 drops Phenolphthalein into flask; swirl flask to insure complete mixture.
3. Titrate with 0.5 N Hydrochloric Acid until solution turns colorless.
4. Record mL used.

Calculate

$$\text{Concentration} = \text{mL } 0.5 \text{ N HCl} \times 0.68$$

## Test Kit Method

1. Fill bottle 1/3 full of water.
2. Using syringe, add 1 mL sample of Aquaease LS 931.
2. Add 5 to 10 drops Phenolphthalein indicator.
3. Add 0.72 N Hydrochloric Acid dropwise.
4. Record number of drops used.

Calculate

$$\text{Concentration} = \# \text{ Drops } 0.72 \text{ N HCl} \times 0.77$$

## 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

Aquaease LS 931 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. 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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## Our People. Your Problem Solvers.

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

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