# Emerald™ Super Soak

Emerald Super Soak is a mildly alkaline liquid product, which was developed for use in immersion and immersion / ultrasonic cleaning operations. It is suitable for use on steel, stainless steel, brass, copper, bronze, and zinc substrates. I may also be used on aluminum substrates but will impart a slight etch to the surface. Emerald SS AL Additive may be added to working solutions at a concentration of 1-2% by volume to completely stop the etching of aluminum.

Emerald Super Soak will remove a variety of forming and machining lubricants (synthetic, petroleum base, sulfurized, etc.). When used with ultrasonic equipment it will effectively remove most buffing compound residues and particulate soils.

## Features & Benefits

| | |
|---|---|
| Highly concentrated liquid | High detergency |
| DfE compliant surfactant system | Contains no hazardous materials |
| pH-operating range: 9.7 – 9.9 | Free rinsing, rinses to a n-water-break surface |

## Physical Data

| | |
|---|---|
| Specific gravity | 1.11 |
| Solubility in water | Complete |
| Appearance and odor | Water white liquid, fruity odor |
| pH (conc) | 9.5 – 10.0 |

## Operating Conditions

| | |
|---|---|
| Concentration | 5 – 10% (vol)-suggest 5% for most applications |
| Temperatures | 120°F – 190°F |
| Equipment | Mild steel tanks and heating coils |

## Titration Method

1. Pipette a 50 mL sample into a 250 mL Erlenmeyer flask.
2. Add 4 drops Methyl Orange indicator and mix.
3. Titrate with 0.5 N Hydrochloric Acid until the color changes from yellow to orange.
4. Calculation

*MLS OF 0.5N Hydrochloric Acid x 0.63 = % (Vol)* *Emerald Super Soak*

## Test Kit Method

1. Fill sample bottle one third full of water.
2. Add 2 mL cleaner solution.
3. Add 8 drops Methyl Orange indicator solution.
4. 0.72 Hydrochloric acid dropwise until color turns from yellow to orange. Record number of drops used.

Calculation

*% (Vol) Emerald Super Soak = 1 x number of drops of 0.72N hydrochloric acid*

## Waste Disposal

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

## Caution

Emerald Super Soak 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.

**WARRANTY**: HUBBARD-HALL INC. IS NOT RESPONSIBLE FOR THE MISUSE, MISAPPLICATION, OR MISHANDLING OF THIS PRODUCT. SEE THE TERMS AND CONDITIONS OF SALE ON OUR WEBSITE FOR ADDITIONAL TERMS AND CONDITIONS CONCERNING OUR PRODUCTS, INCLUDING BUT NOT LIMITED TO, LIMITATIONS AND DISCLAIMERS OF WARRANTIES AND LIABILITIES.

---

## 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].