

# Hubsol 4

Hubsol 4 is a water soluble, red colored, mildly alkaline (pH approximately 11.7) liquid soak cleaner for cleaning buffed copper, brass, bronze, zinc die castings, ferrous metals and some aluminum alloys. Hubsol 4 was initially developed for use on exterior aircraft surfaces and aircraft components.

Hubsol 4 is used as the first or pre-cleaner to remove bulk of soil. Subsequent soak alkaline and/or electrolytic cleaning is required to prepare surfaces for plating or processing.

## Features & Benefits

Will brighten copper, brass and bronze	Safe on common metals
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## Operating Conditions

Operating conditions as a soak cleaner

Concentrations	5 – 15% (vol)
Temperature	160°F – 190°F
Agitation	Suggested to aid in compound removal
Ventilation	Suggested
Equipment	Mild steel tanks and heating coils

Operating conditions as an ultrasonic cleaner

Concentrations	2% – 5% (vol)
Temperature	140°F – 165°F
Equipment	Any ultrasonic cleaning equipment

1. The following is a typical cycle for buffing compound removal prior to plating:  
5-minute immersion in a 10% vol. solution of Hubsol 4 at 160°F to 190°F.
2. Water rinse
3. Alkaline soak or spray (Cleaner CB-1, Aquaease PL 714)

4. Water rinse
5. Electro-clean (Cleaner E-9091)
6. Water rinse
7. Acid activate (Acid Salt W)
8. Water rinses

#### Electroplate process

Hubsol 4 can be used at concentrations ranging from 5 to 15% (vol.) and temperatures ranging from 140°F to 190°F. Conditions vary depending on extent of soil. Heavier and impacted soils require the higher concentrations and temperature.

## Waste Disposal

Discharge to disposal unit. In order to be completely informed on the latest regulations for your area, please contact the local authorities.

## Caution

Hubsol 4 is a mildly alkaline liquid product. Avoid contact with skin and eyes. Wear protective clothing, goggles and rubber gloves. Flush exposed areas immediately with clean, cold water. In case of injury, contact a doctor immediately.

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.

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