

# 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.



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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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