



# OS-317 Spray Acid Cleaner

## DESCRIPTION

The OS-317 Spray Acid Cleaner is an extremely low foaming acidic liquid designed to remove heavy oxide films, stains, and fingerprints from copper used in the fabrication of printed circuit boards. OS-317 contains no silicon-type defoamers or chlorinated solvents and is free rinsing. OS-317 is particularly suited for use in conveyORIZED spray chambers where the surface of printed circuit boards is prepared prior to screening of resist or lamination of dry film resist.

## OPERATING CONDITIONS

<b>Concentration</b>	5 to 20% by volume
<b>Temperature</b>	75°F to 130°F
<b>Time</b>	30 seconds to 3 minutes

## MAKE-UP AND OPERATING PROCEDURES

Fill tank of spray equipment about 3/4 full of water and add the required amount of OS-317 Spray Acid Cleaner. Fill tank to final volume with water and heat to desired operating temperatures. For most applications 1 part OS-317 and 5 parts water at 120° F is suitable. Operate spray equipment in accordance with equipment manufacturer's instructions. Rinse cleaned parts thoroughly with water and proceed immediately with etching or plating operation. If parts are not to be processed at once, apply a suitable anti-oxidation protection such as OS-Tech Tarn Guard.

## CONTROL DATA

### Analysis

- 1) Pipette 10 ml of OS-317 solution into a 250 ml Erlenmeyer flask.
- 2) Add approximately 50 ml deionized or distilled water.
- 3) Add 5 drops of phenolphthalein indicator.
- 4) Titrate with 1.0 N sodium hydroxide until color turns from clear to pink/purple.

Calculations: ml 1.0 N sodium hydroxide x 1.67 = % OS-317

## SAFETY AND STORAGE

Tanks should be constructed of PVC, polypropylene, or lined with Koroseal or rubber. Racks are to be coated with plastisol. Heaters should be constructed of quartz or Teflon.





OS-317 contains strong acids that are corrosive to skin and eyes. Avoid contact with eyes, skin, and clothing. Wear eye protection and impervious gloves when handling. If contact occurs, wash with large amounts of water. For eye contact flush with water for 15 minutes and seek medical attention at once. Avoid breathing mists or vapors. Harmful if swallowed.

#### MISCELLANEOUS

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