



OS452 Spray Equipment Cleaner

DESCRIPTION

OS452 Spray Equipment Cleaner is a concentrated solution designed to clean and condition spray developing, etching, and stripping equipment. OS452 effectively removes machine foulants such as dry film photoresist, etchant residues, and water hardness scale thereby restoring equipment to maximum efficiency. OS452 is a chelated product. If a non-chelated product is required, use OS494 Non-Chelated Equipment Cleaner.

OPERATING PARAMETERS

Concentration	5 to 20% by volume
Temperature	120°F to 135°F
Time	20 to 60 minutes

PHYSICAL PROPERTIES

Fill sump of spray machine about 3/4 full with water. Add required amount of OS452, and fill to normal level with water. Heat the solution to 120° to 135° F. In typical applications 10% by volume OS452 at 130°F is satisfactory. Recirculate OS452 solution through system for 20 to 60 minutes, or as required to remove foulants. After all soils are removed, promptly empty the sump to prevent redeposition of soils. Fill sump with fresh water and recirculate to rinse residual OS452 from the system. Drain rinse water from the system before putting equipment back into service. For especially difficult cleaning requirements, addition of 1 to 2% OS452A Accelerator is recommended. OS452A Accelerator may cause foaming at ambient temperature. Heat solutions containing OS452A Accelerator to at least 90°F before turning on recirculating pump. To minimize foaming during rinsing, rinse with warm water.

CONTROL PROCEDURES

ANALYSIS

1. Pipet a 25 ml sample of OS452 solution into a 250 ml Erlenmeyer flask.
2. Add approximately 50 ml distilled or deionized water and 3 to 5 drops of phenolphthalein indicator.
3. Titrate with 1.0 N hydrochloric or sulfuric acid until pink color is no longer present.
4. Calculations: ml 1.0 N acid x 1.1 = % OS452 in solution.





SAFETY AND STORAGE

Tanks and spray equipment made of PVC, PVDC, polypropylene Teflon, steel, stainless steel, or titanium can be used in contact with OS452. Heaters can be stainless steel, titanium, quartz, or Teflon.

OS452 contains strong alkali, which can burn skin and eyes. Protective clothing such as impervious gloves, aprons, boots, and chemical safety goggles should be worn when handling this material. In case of accidental contact, flush immediately with fresh water. Remove contaminated clothing and wash before wearing again. For eyes, flush immediately with fresh water for 15 minutes. Seek medical attention at once. OS452 is harmful if swallowed or inhaled. Avoid breathing vapors or mists.

