OS203 Tin and Tin/Lead Stripper

DESCRIPTION

OS203 is a peroxide activated tin and tin/lead stripper for single step dip or spray processes. It is also used as the second step in two-step dip stripping processes. OS203 is inhibited to retard attack on copper and epoxy glass substrates. It also contains stabilizers to minimize peroxide decomposition during storage and after contamination with stripped metallic ions. OS203 provides fast stripping and uniformity of removal rate so it is ideal for automated tin/lead stripping and precious metal plating machines.

OPERATING PARAMETERS

Concentration	Single step stripping: undiluted Second step in two step process: 25 to 100% by volume
Temperature	Ambient (60°F to 100°F)
Time	Single step stripping 30 seconds to 2 minutes depending on deposit thickness. Second step stripping 15 seconds to 1 minute depending on concentration.

PHYSICAL PROPERTIES

Single Step Dip Stripping	Immerse parts to be stripped in undiluted OS203 at ambient temperature (60° to 100° F). Allow OS203 to react with the metal to be removed until the vigorous gassing subsides and the metal deposit is dissolved. Remove parts from bath and rinse with clear water. Dip rinsing is acceptable, but spray rinsing with fresh water is preferred. Tin/lead deposits often form insoluble white lead fluoride when stripped in OS203. Parts stripped in baths of OS203 heavily loaded with the lead fluoride should always be spray rinsed. If desired, the insoluble lead residues left on the parts may be removed by immersion in a 33 to 100% solution of OS201 Solder Stripper for a few seconds and followed by fresh water rinse.

	After rinsing, proceed directly to mechanical scrubbing and precious metal plating operations or dry parts immediately to prevent tarnishing and water spotting.
Single Step Spray Stripping	Charge freshly cleaned spray equipment with undiluted OS203 at ambient temperature (60° to 100° F). Operate spray equipment in accordance with manufacturer's instructions. When stripping is complete, thoroughly rinse with fresh water and proceed to mechanical scrubbing and precious metal plating or dry immediately to prevent tarnishing and water spotting.
Two Step Stripping Process	Immerse parts to be stripped in undiluted OS201 Solder Stripper at ambient temperature (60° to 100° F) until vigorous gassing stops and the tin or tin/lead deposit has been removed to expose the light gray intermetallic layer. Remove parts from the OS201 bath and thoroughly rinse with fresh water. Dip rinsing is acceptable since little or no insoluble residue is generated when tin/lead deposits are processed in OS201 baths. Immediately immerse parts in OS203 at ambient temperature (60 to 100 F) used undiluted or mixed with as much as 3 volumes water per volume of OS203. Allow to soak 15 to 60 seconds or until the light gray intermetallic layer has been dissolved. Remove parts from bath and rinse thoroughly with fresh water. Dip rinsing is acceptable. Dry parts immediately to prevent tarnishing or water spotting.

CONTROL PROCEDURES

As metal is dissolved in OS203, heat is generated. When large volumes of work are processed rapidly through OS203 solution the temperature may rise above the acceptable range. This is especially likely to occur when racks of parts with large areas of tin or tin/lead are stripped in a single step process.

Installation of cooling coils or other means of maintaining the temperature of the solution within the specified temperature range is essential to prevent deterioration of the OS203 solution and possible excessive attack on epoxy glass substrates. As an alternative to use of cooling equipment it is often preferable to use the two-step dip stripping process.

Neither OS201 in the first step nor OS203 in the second step generate any substantial amount of heat, so no special cooling equipment is required. Additions are not usually made to OS203 baths. When the speed of removal is no longer acceptable, recharge with fresh OS203.

SAFETY AND STORAGE

All common metals and glass are attacked by OS203 solutions. All equipment and tanks in contact with OS203 should be made of acid resistant plastic such as PVC, polypropylene, or polyethylene.

OS203 contains acid fluorides and hydrogen peroxide. It is corrosive to skin and eyes and is a strong oxidizer. Avoid contact with combustibles and with skin and eyes. In case of skin contact, flush thoroughly with water, paying special attention to areas under fingernails. If irritation occurs, seek medical attention. In case of eye contact, flush immediately with water for 15 minutes and seek medical attention at once. 0S203 is harmful if swallowed or inhaled. Avoid breathing vapors or mists.