

PRETREATMENT CHEMICALS

- **'KleenSol-ST' & 'KleenSol-NF'** : Room temperature alkaline degreaser/cleaner for steel, non-ferrous metal and plastics. **'KleenSol'** is highly efficient & cost effective. It is ideally suited for aqueous ultrasonic cleaning as well.
- **'PikSol'** : Non-fuming acid pickling/derusting and surface activation additive for acid baths for pretreatment of metals. Ideal and safe for use on ferrous and non-ferrous articles.
- **'KleenSol-PCB'** : A novel, moderate temperature operating, mildly acidic degreaser/cleaner for cleaning, de-oxidising and activating copper surfaces prior to further plating and finishing treatments. Particularly designed for pretreating PCBs for acid tin plating as it does not attack the photo-resist.



TIN PLATING CHEMICALS

- **'tinGlo™' & 'tinMat'** : Acid sulphate bright, satin matte tin plating processes respectively. Ideal for plating PCBs; electrical/electronic components; continuous copper & steel wires, industrial and decorative items. Deposits are smooth, fine-grained and highly solderable.
- **'tinGlo™'/'tinMat'** Salt : Hi-Purity Tin Salt that supersedes IS:3026:1968 and BS:1468:1967 specifications.
- **'tinNeutralizer'** : An alkaline post-plating wash for acid tin plating components, particularly bright acid tin to neutralize traces of tin plating solution and excess of occluded organics. Prolongs service life of tin plated components.
- **'tinPass'** : Mildly alkaline post-plating neutralizing–cum–passivating treatment for tin plated components. Preserves the solderability properties when tin plated components are subjected to high temperature sub–assembly operations during manufacturing steps.
- **'tinKlear'** : Acid tin plating bath clarifier. It is a water solution of specially selected blend of powerful flocculating agents that will cause the suspended solids and stannic sludge to cling together and settle to the bottom, rendering the tin bath crystal clear. Avoids the need of filtration units to a great extent.
- **'tinStrip–NF'** : Fast acting acidic hydrogen peroxide based tin/tin alloy stripper from brass, copper and copper alloy base metals. It is a speedy, non-fuming, nitric/chromic free stripping process which does not substantially attack the base metal.
- **'tinStrip–Fe'** : Fast acting hot alkaline tin/tin alloy stripper from iron and steel base metals. Simple to operate and maintain and does not attack the base metal.
- **'tinPass'** : Post-plating neutralising cum passivating process for protection of tin plated surfaces. It is a unique treatment for protecting tin plated components from deteriorating during storage and/or exposing to temperatures of 100 (pls add degree sign) C - 200 (pls add degree sign) C during further manufacturing steps.
- **'tinAntox'** : Post-plating antioxidation/antitarnish process for tin and tin plated components. The treatment prevents the tin coated surface from tarnishing under high humidity and temperature conditions thereby preserving solderability and mitigating "whisker" growth.

COPPER PLATING CHEMICALS

- **'CuMatt'** : **'CuMatt'** is a high throw, fine-grained, smooth, lustrous, ductile acid sulfate copper plating process for rack and barrel plating. **'CuMatt'** is used in Printed Circuit Board, as an undercoat on brass components prior to **'tinGlo™'** plating, plus many other applications.
- **'DiCop-NC'** : **'DiCop-NC'** is a non-cyanide alkaline copper plating process which produces lustrous, fine-grained deposits having high throwing and uniform covering power even in deep recesses. It plates directly on steel, copper, brass, zincated aluminium, nickel and zinc die-cast, both in barrel and vat plating operations.



CHEMICAL POLISHING, BRIGHT DIPPING & DESCALING CHEMICALS (FOR BRASS, COPPER & STEEL)

- **'DiPol-B98', DiPol-C99' & 'DiPol-Fe'** : Chemical polishing bright dips for brass, copper and mild steel base metals respectively. Processes are non-fuming, nitric/chromic/hydrochloric/cyanide free and user friendly, imparting a highly brilliant, lustrous and levelled finish.
- **'DiScale-BC99'** : A mildly acidic hydrogen peroxide based nitric/chromic/cyanide free fast acting de-scaling process for brass, copper and copper alloy base metals. It rapidly dissolves heavy oxides and black scales formed due to annealing, producing a clean matte surface ready for further finishing operation like chemical bright dipping / polishing, electroplating, etc.
- **'DiPol-AC'** : An acidic de-oxidizing / activation process for brass, copper and copper alloy base metals prior to further finishing steps like chemical polishing, electroplating, colouring, patinating and lacquering operations.
- **'DiPol-AT' & 'DiPol-ATF'** : Anti-tarnish post-finishing dips for bright brass and copper metals. Processes are chromic & cyanide free imparting moderate term protection indoors to chemically / mechanically brightened or electroplated brass and copper surfaces.
- **'DiRinz'** : Post-finishing rinse aid which imparts a thin/temporary dry-to-touch protective film, rapid de-watering, in-storage/transit corrosion resistance and tarnish resistance.
- **'CuEcklean'** CHELATED ALKALINE ELECTRO CLEANER FOR BRASS, COPPER AND COPPER ALLOYS for use in electro cleaning of brass, copper, and copper alloys. It is especially effective on hard-to-remove soils since it dissolves surface oxides, thereby undermining the absorbed soils.
- **'DISuperKlean'** : ALKALINE GENERAL-PURPOSE SOAK AND ELECTROLYTIC CLEANER FOR FERROUS AND NON-FERROUS METALS. It is a multipurpose alkaline cleaner designed for cleaning of Steel and Copper alloys. It rapidly wets metal surfaces and displaces oils, greases, and shop soils, leaving the work clean and ready for further processing.
- **'CuBraGlo'** : Bright dip process for Copper/Brass which reduces etching effect of Nitric Acid on base metal and gives an excellent brightness prior to plating on base surfaces. It can be used on alkaline Copper plated and Brass plated components for extra glow and emits no fumes while cleaning the base metal hence eco-conscious in nature.

BLACKENING CHEMICALS FOR MILD STEEL / IRON CASTINGS

- **'DiPrep-ST'** : Pretreatment chemical for room temperature blackening of iron/steel. It is an acidic aqueous blend formulated to effectively activate/condition ferrous iron casting, leaded steels and difficult to blacken steels rendering the surface free from oxides and smut prior to **'KolBlak-F91'** process.
- **'KolBlak-F91'** : Fast action room temperature blackening process for ferrous articles, iron castings, high speed steel etc. Energy saving–cost effective, user-friendly and simple to operate unlike the conventional hot caustic-nitrate blackening process.
- **'OISeal-DW'** : De-watering rust preventing sealant fluid. Effectively used for sealing and temporary rust prevention of blackened or phosphated iron and steel articles, and goods in transit.



LACQUERS & COATINGS

- **'AquaRez-AR' & 'AquaRez-BK'** : Water-based clear acrylic lacquers. Air drying **'AR'** and baking / stoving **'BK'** types impart clear, transparent coatings having corrosion resistance and anti-tarnish properties. Used on polished brass / copper articles; gold / silver platings and zinc plated items. Also used as a sealant for blackened or phosphated iron & steel products.

