





**Italgalvano S.p.A. is a private held and international company since 1980, part of Technic INC group. Italgalvano has offices, manufacturing, storage and laboratory located just outside of Milan. This ISO 9001:2015 approved facility offers sales and technical assistance. It's supplies a number of key industries in both industrial and decorative applications.**

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***CLEANERS***

## ADDITIVES FOR CLEANER

|                          |   |       |
|--------------------------|---|-------|
| <b>REMOVA 5122</b>       | Alkaline, Chemical and Electrolytic surfactant Agent.           |       |
| <b>REMOVER TECHNO 33</b> | Additive for soak and electrolytic cleaners for better results. | Steel |

## ACID SOAK CLEANER

|                             |   |          |
|-----------------------------|---|----------|
| <b>REMOVER TECHNO AL 32</b> | Acid product. Oxides removal and degreasing action. | Aluminum |
|-----------------------------|---|----------|

## SOAK AND ELECTROLYTIC CLEANER

|                          |   |                                    |
|--------------------------|---|------------------------------------|
| <b>REMOVEL SW 15</b>     | Phosphates – free. Product liquid suitable for both soak and electrolytic cleaners.                                       | Steel, Copper, Brass and Cast-Iron |
| <b>REMOVEL T 11 L</b>    | Processing oils removal. Phosphates – free. Product LIQUID suitable for soak, electrolytic cleaners and ultrasonic lines. | Steel, Copper and Brass            |
| <b>TECHNIC TEC -1011</b> | Alkaline electrolytic cleaner, phosphates free, it can be used as soak cleaner as well.                                   | Brass ,copper, steel.              |

## ALKALINE SOAK CLEANER

|                              |   |                                    |
|------------------------------|---|------------------------------------|
| <b>REMOVER 16 LQ</b>         | Buffing compounds. Liquid product.  | Brass, Copper ,Silver, Gold, Steel |
| <b>REMOVER 111</b>           | Buffing compounds removal and processing oils removal.  | Brass, Copper and Steel            |
| <b>REMOVER 122</b>           | Buffing compounds, oils and greases removal.  | Brass, Copper and Steel            |
| <b>REMOVER 133 IT</b>        | Buffing compounds, oils and greases removal.  | Steel and stainless steel          |
| <b>REMOVER FD-102N</b>       | It's a soaking-type alkaline cleaner applicable to iron, copper, aluminum-based metallic materials. Liquid product. | Steel, Copper, Aluminum            |
| <b>REMOVER PB</b>            | Buffing compounds and greases removal.  | Zamac                              |
| <b>REMOVER TECHNO 13</b>     | Buffing oils and buffing compounds removal with flocculating action.  | Steel, Brass and Copper            |
| <b>REMOVER TECHNO SOLVIT</b> | Buffing compounds removal. Low alkalinity liquid degreaser with deoxidizing action.                                 | Brass, Copper and Tin Alloy        |
| <b>TECHNI TSC 1500</b>       | Buffing compounds, greases and oils removal.  | Aluminum, Brass, steel, Zamac      |
| <b>TECHNI TSC L2</b>         | Liquid product specific for degreasing and removing of polishing paste.   | Aluminum, Zamac                    |

## ELECTROLYTIC CLEANER

|                          |  |   |
|--------------------------|--|---|
| <b>REMOVEL 555</b>       | Cathodic and anodic degreaser.   | Brass and Copper                            |
| <b>REMOVEL 558</b>       | Cathodic and anodic degreaser.   | Copper, Brass, Steel, Zamac                 |
| <b>REMOVEL 600</b>       | Nickel plated surfaces electrolytic activation.  | Nickel                                      |
| <b>REMOVEL 611</b>       | Cathodic and anodic degreaser.   | Steel                                       |
| <b>REMOVEL TECHNO 66</b> | No foaming cathodic and anodic degreaser.  | Steel, Brass, Copper and Cast iron          |
| <b>TECHNICLEAN SF</b>    | Silicates-free, electrolytic, MICROETCHING degreaser for reel to reel system and semiconductors. | Copper, Copper Alloys. Steel, Nickel alloys |
| <b>TECHNICLEAN OH</b>    | Silicates-free, electrolytic, MICROETCHING degreaser for reel to reel system and semiconductors. | Copper, Copper Alloys. Steel, Nickel alloys |
| <b>REMOVEL 155 IT</b>    | Alkaline electrolytic cleaner for still and iron metal. Suitable also for spray application.     | Steel                                       |
| <b>REMOVEL 175 F</b>     | Electrolytic alkaline cleaner usable in anodic and cathodic phase.                               | Brass, Copper, Zamac, Bronze.               |

| <b>SPRAY CLEANER</b>              |   |       |
|-----------------------------------|---|-------|
| <b>REMOVER FDN - 26</b>           | LIQUID cleaner with low foam for spray, ultrasonic and system with air agitation.   | Steel |
| <b>TECHNI PX SPRAY</b> <i>New</i> | Liquid degrease with antirust property specific for spray applications. This product not contain nitrate, boron and derivates | Iron  |

## **OXIDE REMOVER AND ACID PICKLING ADDITIVES**

|                                |   |                                      |
|--------------------------------|---|--------------------------------------|
| <b>ACTIVATOR NI 1</b>          | Activator before next plating baths.  | Nickel                               |
| <b>ACTIVATOR CU</b>            | Activator and pickling additive.  | Copper and Alloys                    |
| <b>REMOVA 95</b>               | Activator of metallic surfaces and suitable to remove oxides and silicates. Sulfuric acid substitute.           | All metals                           |
| <b>REMOVA 97</b>               | Neutralizer for silver plated parts with cyanide based electrolytes.  | Silver                               |
| <b>REMOVA 205</b>              | Pickling with brightening action.   | Brass                                |
| <b>REMOVA 213</b>              | Liquid product that increase the pickling action of the sulfuric acid and hydrochloric acid.                    | Iron                                 |
| <b>REMOVA 303</b>              | Pickling action.  | Stainless Steel                      |
| <b>REMOVA 316</b>              | Acid additive fluorides base for pickling solution.   | Steel                                |
| <b>REMOVA 1700</b>             | Product for difficult pickling and silicates removal.   | Aluminum, Copper, Steel, Zinc, Lead. |
| <b>REMOVA 2011</b>             | Acid pickling additive for weldings.  | Steel and Brass.                     |
| <b>REMOVA 2055</b>             | Supporting additive for pickling and degreasing action.   | Steel                                |
| <b>REMOVA 3021</b>             | Pickling, with antioxidant and activating action.   | Silver                               |
| <b>REMOVA 5000 I</b>           | Inhibitor for pickling solutions.   | Steel                                |
| <b>REMOVA 8068</b>             | Pickling with degreasing action.  | Zamac                                |
| <b>REMOVA 8070</b>             | Antifumes additive for alkaline zinc electrolytes, acid pickling solutions and alkaline cleaner.                |                                      |
| <b>TECHNIC PST NEUTRALIZER</b> | Slightly alkaline post treatment designed to remove acid films and oxide from tin and tin-lead plated surfaces. |                                      |
| <b>STABILIZER IT 30</b>        | Process for bright and uniform effect. Hydrogen peroxide based.   | Brass and Copper                     |

## **ZINCATE FOR ALUMINUM**

|                          |  |
|--------------------------|--|
| <b>ALLUMIN 810</b>       | Zincate process for next step in copper plating.   |
| <b>ALLUMIN 5200</b>      | Zincate process for direct nickel plating.   |
| <b>TECHNI EN ZINCATE</b> | Zincate process suitable for any type of chemical and electrolytic deposition. CYANIDE FREE. |

## **ELECTROLYTIC DEPOSITION**

**BRASS**



|                   |   |
|-------------------|---|
| <b>BRASS 71 S</b> | Brass electrolytic process with high efficiency. HIGHER ZINC THAN COPPER. |
| <b>BRASS 71 D</b> | Decorative electrolytic Brass plating process. HIGHER ZINC THAN COPPER.   |
| <b>SURFALAT</b>   | Decorative electrolytic Brass plating process.                            |

## BRONZE

|                         |   |
|-------------------------|---|
| <b>TECHNI WHITE EGB</b> | White Bronze potassium based electrolytic process with bright finish. Suitable for anallergic treatment. Normally applied over acid copper,                     |
| <b>TECHNI WHITE V</b>   | Electrolytic process lead-free of White Bronze whit white and bight aspect. Suitable for anallergic treatment.  |
| <b>IG WHITE</b>         | Electrolytic process designed to increase the chemical and physical properties of white bronze. The process replaces Nickel/Phosphorus deposits in nickel-free. |

## CHROMIUM

|                                  |  |
|----------------------------------|--|
| <b>ANTIFUME IG 36</b> <i>New</i> | Antifumes agent for hexavalent Chrome solutions.   |
| <b>ANTIFUME 66 NF</b>            | Fumes dismissive agent for Hexavalent decorative and technique Chrome solution. The solution does not contain PFOS, alcohol or not stable derivatives. |
| <b>ITALCHROME D/LQ</b>           | Decorative hexavalent Chrome plating process with excellent throwing power and high rate deposition.   |
| <b>ITALCHROME NR/5</b>           | Hexavalent, black chrome bath catalyzed.   |
| <b>IG CHROME</b> <i>New</i>      | Trivalent chromium process.  |
| <b>ITALCHROME HC</b>             | Process for heavy chromium deposition with high deposition rate, fluorides free  |

## ALKALINE COPPER

|                         |  |
|-------------------------|--|
| <b>GLANCE COPPER PY</b> | Pyrophosphate copper process. Bright deposit.  |
| <b>GLANCE CU 160</b>    | Cyanide free, alkaline Copper plating solution.  |
| <b>GLANCE CU 9002</b>   | Alkaline Copper plating process containing cyanide and producing very bright deposits. Lead free |

## ACID COPPER

|                                     |  |
|-------------------------------------|--|
| <b>GLANCE AC 300</b>                | Dye free, acid Copper plating bath.  |
| <b>TECHNI COPPER LUX</b>            | Mirror bright acid copper for both rack and barrel.  |
| <b>TECHNIC CU 2300</b>              | Copper acid process for printed circuits board and reel-to-reel applications.  |
| <b>TECHNIC CU 2800</b>              | Copper acid process for low current density. Suitable for printed circuits board.  |
| <b>TECHNIC CU SATIN</b>             | It's a revolutionary new electroplating process for depositing copper where smooth satin deposits are required. It's suitable also for Decorative application.   |
| <b>ELEVATE CU 6320</b> <i>New</i>   | Electrolytic acid copper process specifically engineered for plating copper bumps, columns, redistribution layer, UBM and pattern plating on semiconductor. This process operates over a wide range of current densities and produces a fine grain equiaxed, ductile copper deposit. |
| <b>TECHNI CU NO DYES</b> <i>New</i> | Copper acid process without dyes. Produces deposit with an excellent brightness and throwing power.  |

## GOLD

|                          |  |
|--------------------------|--|
| <b>AUROTEx 1002 N 14</b> | Electrolytic acid gold plating process that produces 2N14 colors deposits. |
|--------------------------|--|

|                                     |  |
|-------------------------------------|--|
| <b>AUROTEx 1002 N 18</b>            | Acid gold plating solution tolerating relatively high quantities of metal impurities and produces 23.5 karat with 2N18 color deposits.   |
| <b>AUROTEx 1002 NG</b>              | Electrolytic, acid gold plating bath producing 23,8 K deposits of "pale gold" color.   |
| <b>AUROTEx 1100 SR</b>              | Acid gold process operating at low gold content. For barrel and rack applications.   |
| <b>AUROTEx 240</b>                  | Decorative gold plating solution at neutral pH.  |
| <b>AUROTEx 290</b>                  | Decorative gold plating solution with high tolerance to nickel impurities.   |
| <b>AUROTEx 1002 3N</b>              | Bright, acidic, Cobalt-Nickel alloy gold plating process for decorative application. Produces hard deposits at 23.5 karat with 3N color.   |
| <b>AUROTEx AU/FE</b>                | Electrolytic process that produces Gold-Iron alloy deposits with high corrosion and abrasion resistance.   |
| <b>AUROTEx 88 GS M</b>              | Acid gold plating process suitable to plate directly on stainless steel surfaces.  |
| <b>AUROTEx 94G</b>                  | Acid gold plating process suitable to plate directly on stainless steel surfaces.  |
| <b>AUROTEx MC 418</b>               | Decorative gold plating matching with brass color.   |
| <b>COTE D'OR</b>                    | Decorative hard Gold   |
| <b>OROSENE 999 D</b>                | Acid, Cobalt/Nickel alloy gold plating bath that produces very bright 24K deposit.   |
| <b>OROSENE 999 E</b>                | Heavy acid, Co/Ni alloy based, gold plating process producing very bright 24K deposit.   |
| <b>OROTEMP 24</b>                   | Neutral gold plating solution with 24 K deposit.   |
| <b>TECHNI ACID GOLD STRIKE</b>      | Acid gold strike is a Neutral pure Gold plating solution guaranteeing a perfect adhesion. Wood Nickel treatment can be avoided also over passive Nickel hard to plate. It can be used on Stainless Steel, Nickel-Tin, Moly-Manganese alloys, Manganese, Molybdenum, Kovar, Titanium.   |
| <b>TECHNIBOND RM</b>                | TechniBond RM is a neutral pure gold plating process that produces matte to semi-bright, ultrapure, ductile gold deposits that meet the requirements of Type III, Grade A of ASTM B488-01 (Supersedes MIL-G-45204). Semiconductor components, ceramic packages, multichip modules, connectors, contacts or a variety of electronic components. |
| <b>TECHNI BROWN GOLD</b>            | Acid Decorative gold used for getting old gold color in a single step.   |
| <b>TECHNI GOLD 25 ES</b>            | It's a neutral NO CYANIDE GOLD plating formulation suitable for electronics, semiconductor, wafer, electroforming, or general applications. .  |
| <b>TECHNI GOLD 300</b>              | Mildly acidic NICKEL brightened gold plating process for barrel, rack, high speed & selective applications. Nice bright deposit.   |
| <b>TECHNI GOLD 400</b>              | Mildly acidic COBALT brightened gold plating process for barrel, rack, high speed & selective applications. Nice bright deposit.   |
| <b>TECHNI-GOLD STRIKE SS</b>        | Acid gold for plating over stainless steel also with high thickness, suitable also for reel to reel applications. Both possibilities with Nickel or Cobalt. Usable also gold strike.   |
| <b>TECHNIC OROSTRIKE C</b>          | Gold strike process for decorative and electronic applications.  |
| <b>TECHNI NPD P4</b>                | Alkaline, gold plating process that produce Gold/Copper Alloy pink color deposits at 10 karats.  |
| <b>TRUSHADE 24 K</b>                | Alkaline, decorative, gold plating process producing a bright 24K deposit.   |
| <b>ELEVATE GOLD 7990 <i>New</i></b> | Slightly acid, non-cyanide gold plating process suitable for electroplating semiconductors that require a pure, soft gold deposit.   |

## INDIUM

|                                    |  |
|------------------------------------|--|
| <b>TECHNI INDIUM HS <i>New</i></b> | Indium electroplating process designed for connector press-fit pin applications. This process have excellent throwing power and high efficiency. |
|------------------------------------|--|

| <b>NICKEL</b>                         |  |
|---------------------------------------|--|
| <b>GLANCE 189 L</b>                   | Unique, complete and universal brightener, either for rack or barrel applications.   |
| <b>GLANCE 91 S/A</b>                  | Electrolytic bright nickel process with levelling effect. Perfect for rack.  |
| <b>GLANCE 374 G</b>                   | Nickel process with excellent levelling and throwing power on both rack and barrel application.  |
| <b>GLANCE CSF</b>                     | Semi-Bright Nickel plating for Nickel duplex system  |
| <b>GLANCE LUX 2</b>                   | Unique, complete and universal brightener, either for rack or barrel applications specific for fashion accessories sector.   |
| <b>GLANCE HB</b>                      | Brightener for semi-bright nickel plating solutions.   |
| <b>GLANCE LUX 1</b>                   | Unique, universal brightener either for rack or barrel applications.   |
| <b>GLANCE BR 3</b>                    | Electrolytic Nickel bright process for barrel applications.  |
| <b>TECHNI NICKEL S</b>                | Low stress. High deposition rate electrolytic sulfamate Nickel plating process.  |
| <b>STARLUX 50</b>                     | Unique, universal brightener either for rack or barrel   |
| <b>TECHNO MAGIC 11</b>                | Unique, universal brightener either for rack or barrel applications. Very soft deposits and wonderful throwing power.  |
| <b>GLANCE LUX 4</b> <i>New</i>        | Electrolytic nickel process that produces bright deposits in barrel applications.  |
| <b>GLANCE 91 S</b> <i>New</i>         | Electrolytic nickel process suitable for Iron treatment in rack applications.  |
| <b>ELEVATE NI 5910</b> <i>New</i>     | Process designed to produce a low stress, ductile nickel deposit for semiconductor applications.   |
| <b>GOLDENEYE NICKEL</b>               | Nickel plating process for Reel-to-Reel, rack and barrel application with high distribution thickness. Produces deposits with low internal stress and high corrosion resistance.   |
| <b>GOLDENEYE NICKEL ORC</b>           | Nickel plating process designed to protect Tin deposits from discoloration due by thermal exposure (es. Reflow)  |
| <b>GOLDENEYE LEVEL NICKEL</b>         | Nickel plating process that produces leveled and bright deposits in high speed, rack or barrel applications. The deposits have high hardness and corrosion resistance.   |
| <b>GOLDENEYE NICKEL II</b> <i>New</i> | Nickel plating process that provides improved performance vs. standard nickel sulfamate or sulfate solutions in connector reel-to-reel plating applications.   |
| <b>GOLDENEYE SATIN NICKEL</b>         | Process which produces a smooth satin nickel deposit.  |
| <b>GOLDENEYE MATTE NICKEL</b>         | Nickel plating process that produces matte deposits with high ductility, low internal stress and good corrosion resistance in Reel-to-Reel applications. Meet the specifications AMS-QQ-N-290B (Rev. 2009 – 07) Class 1 “SD” |
| <b>GOLDENEYE LEVEL NICKEL HS</b>      | Advanced electroplating process designed to produce fully bright lustrous nickel deposits at high current density, suitable for decorative applications.   |
| <b>NIST AS 233</b>                    | Satin nickel plating process   |
| <b>NIST SF 512</b> <i>New</i>         | Satin nickel plating process.  |
| <b>NIST WL 835</b> <i>New</i>         | Satin nickel plating process.  |

| <b>NICKEL ALLOY</b> |                                   |
|---------------------|-----------------------------------|
| <b>BLACK GUN CL</b> | Black Nickel-Tin process          |
| <b>GLANCE N 23</b>  | Dark grey nickel plating process. |

|   |  |
|---|--|
| <b>GLANCE NI SP3</b>                        | Electrolytic Phosphorous nickel plating process developed to increase the corrosion resistance of metal accessories plated by this bath. |
| <b>DURATECH NIW</b> <i>New</i>              | Electrolytic process that produces deposits alloy of Nickel-Tungsten. Could replace the hard chrome deposits.                            |
| <b>MARK 1046</b>                            | Electrolytic Cobalt-Nickel plating process designed for producing variegated, iridescent color.  |
| <b>GOLDENEYE NICKEL TUNGSTEN</b> <i>New</i> | Electrolytic process that produces deposits alloy of Nickel-Tungsten. It is suitable for electronic applications.                        |

## PALLADIUM

|                         |   |
|-------------------------|---|
| <b>PALLASPEED VHS</b>   | Electrolytic Palladium process with high deposition rate for high speed applications. |
| <b>PALLASPEED VHS D</b> | Electrolytic Palladium process for decorative applications.                           |

## PALLADIUM ALLOY

|                                     |   |
|-------------------------------------|---|
| <b>TECHNIC PALLADIUM NICKEL VHS</b> | Palladium/Nickel alloy, semi-bright to bright aspect (70-90 % Palladium). Conventional Pd/Ni plating process. Chloride based electrolyte. |
| <b>TECHNIPAL PF</b>                 | Pd/Fe alloy bright deposit, cobalt and nickel free  |

## PLATINUM

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|---|---|
| <b>PLATINUM AP</b>                      | Electroplating process which deposits a hard platinum coating from a neutral pH bath. Platinum AP has an excellent adhesion on most substrates. Highly recommended for industrial applications. |
| <b>ELEVATE PLATINUM 7810</b> <i>New</i> | Mildly acid platinum plating solution formulated for MEMS, semiconductors and other applications that require a bright low-stress and heavy deposit of platinum.                                |

## RHODIUM

|                                       |  |
|---------------------------------------|--|
| <b>RHODIUM IT 2</b>                   | Decorative, electrolytic Rhodium plating process.  |
| <b>TECHNI DARK RHODIUM</b> <i>New</i> | Electroplating process designed to deposit a uniformly thin, hard, dark rhodium coating. |

## RHODIUM ALLOY

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|--|--|
| <b>TECHNI WHITE RHODIUM/PALLADIUM</b> <i>New</i> | Electroplating process designed to deposit a uniform bright, white, low stress rhodium-palladium coatings. |
| <b>TECHNI WHITE RHODIUM/RUTHENIUM</b> <i>New</i> | Electroplating process designed to deposit a uniform bright, white, low stress rhodium-ruthenium coatings. |

## RUTHENIUM

|                                |   |
|--------------------------------|---|
| <b>RUTHENIUM AK</b> <i>New</i> | Ruthenium process suitable for barrel application. It produces deep grey color to anthracite color. |
| <b>RUTHENIUM-U</b>             | Ruthenium bath of grey color deposit for rack applications.   |

## SILVER

|                      |  |
|----------------------|--|
| <b>ACR 1050</b>      | High speed silver process. For semiconductor and electronics industry.   |
| <b>SILVER IT 2</b>   | Electrolytic Silver plating process for industrial applications, Potassium Cyanide based, producing semi-bright deposit. |
| <b>SILVERSENE DW</b> | Electrolytic Silver plating process, Potassium Cyanide based, producing mirror-bright                                    |



|  |  |
|--|--|
| <b>SILVERTEK L</b>                           | Decorative Silver plating solution with white and bright deposits (Organic Brightener).  |
| <b>TECHNI SILVER CY LESS II W</b>            | CYANIDE FREE, electrolytic Silver plating process with BRIGHT deposits.  |
| <b>TECHNI SILVER CY LESS II W SEMIBRIGHT</b> | CYANIDE FREE, alkaline, electrolytic Silver plating process with SEMI BRIGHT deposits.   |
| <b>TECHNI SILVER E</b>                       | Potassium Cyanide based Silver plating bath with bright deposit. (Metallic Brightener).  |
| <b>TECHNI SILVER EHS 3R</b>                  | High speed silver pure process operates at very low concentration of free cyanide. It be can reach very high current density, (till 400 Amp/dm <sup>2</sup> ). |

## TIN

|                                      |   |
|--------------------------------------|---|
| <b>JB 3000 DECORATIVE</b>            | Completely full bright and very white deposit ideal for decorative sector.  |
| <b>TECHNI BT 2</b>                   | Sulfate based electrolytic Tin plating process with bright deposits, for barrel and rack applications.  |
| <b>TECHNI MATTE TIN SULFATE 89TI</b> | Sulfate based matte tin plating process for rack and barrel applications.   |
| <b>TECHNI NF JB 3000</b>             | High speed bright tin plating process. MSA based electrolyte. Bright tin whiskers resistant. Satisfies all requirements of JEDEC JESD 201.  |
| <b>TECHNI NF JM 3000</b>             | High speed pure matte-satin tin process for reel-to-reel continuous strip applications. MSA based. Fully compatible with Techni NF JB 3000 bright tin.  |
| <b>TECHNISTAN JM 7000</b>            | Matte Tin process suitable in rack, barrel and high speed applications, appropriate for electronics components, semiconductor and connectors. It's a process based on Sulfuric acid which produces deposits lead-free.                                |
| <b>TECHNISTAN JM 8000</b>            | New matte Tin process designed for the ultra high, high, and medium speed deposition in electronic plating application such as semiconductors, frames and connectors. It's a process based on methan sulfonic acid which produces deposits lead-free. |
| <b>TECHNI SOLDER NF-W</b>            | High speed matte tin process for <b>WIRE</b> . MSA based that produce a matte-satin deposit.  |
| <b>TECHNISTAN TP 5000</b>            | High speed MATTE pure tin process for reel-to-reel continuous strip applications. SULFURIC ACID BASED. Offers significant cost advantages vs MSA system.  |
| <b>TECHNISTAN TP W</b>               | High speed matte /satin pure tin for <b>WIRE</b> applications. Based on SULFURIC ACID technology. It offers significant cost advantages vs MSA system   |
| <b>TECHNIBRITE HT 1000</b>           | Bright acid Tin process with sulfuric-base and nonylphenol Free. Process suitable for rack and barrel applications, work over a wide range of current density.  |
| <b>TECHNI NF JM 6000 LS</b>          | Electrolytic matte Tin process for low speed rack and barrel applications. Provides a white/grey matte deposit from a methansulfonic acid based system.   |
| <b>TECHNI BT 1000</b>                | Process which produces mirror bright pure tin deposits from sulfate based electrolyte. Is designed for high speed and medium speed depositions in electronic applications.  |

## TIN ALLOY

|                         |  |
|-------------------------|--|
| <b>BLACK TIN COBALT</b> | Tin/Cobalt process for barrel applications. Dark-grey deposits.  |
| <b>TECHNISTAN AG</b>    | Semi bright high speed Tin/Silver alloy plating process (93-99% tin) for CONNECTOR applications. Excellent whisker resistance. |
| <b>TIN COBALT</b>       | Tin-Cobalt alloy based bath with light aspect Chrome like. Suitable for rack and barrel application.                           |

## ZINC

|                       |  |
|-----------------------|--|
| <b>ALPHALUX</b>       | Alkaline cyanide free process with very bright deposits. Suitable for rack and barrel applications.            |
| <b>BETALUX BARREL</b> | Alkaline cyanide free zinc process for barrel applications. Produces mirror deposits with good throwing power. |

|                     |   |
|---------------------|---|
| <b>BETALUX RACK</b> | Alkaline cyanide free zinc process for rack applications. Produces mirror deposits with good throwing power.  |
| <b>SIRIO 600</b>    | Versatile potassium chloride zinc plating process. Boron free. Ideal for barrel applications.   |
| <b>SIRIO 1000</b>   | Acid zinc electroplating process based on potassium chloride with excellent brightness and low concentration of surfactant agent. Ideal for barrel ad rack applications. Usable also hot. |
| <b>VEGA 2500</b>    | Alkaline cyanide based bright process. Can be used both rack and barrel applications  |
| <b>VEGA 3000</b>    | Acid chloride zinc plating bath. Suitable for rack and barrel applications.   |
| <b>VEGA W 28</b>    | Acid sulfate based process for reel to reel applications. Semi bright. Ideal for wire and strips.   |

## ZINC ALLOY

|                    |   |
|--------------------|---|
| <b>VEGA ZF 210</b> | Alkaline zinc-iron process with high corrosion resistance. Can be used both rack and barrel applications. |
| <b>SHEDAR 30</b>   | Alkaline Zinc-nickel process with uniform appearance. Idea for barrel and rack applications.              |

# ELECTROLESS AND IMMERSION METAL DEPOSITION

## ELECTROLESS NICHEL

|                           |   |
|---------------------------|---|
| <b>TECHNI EN 4100</b>     | Alkaline Electroless nickel strike ideal for Aluminum.  |
| <b>TECHNIC EN AT 5600</b> | It's an advanced, electroless nickel that produces a deposit with 6 – 8% w/w phosphorus. It is specifically formulated for use with TechniPad ENIG and TechniPad ENEPIG processes for printed circuit boards and meets IPC4552. |
| <b>TECHNI EN AT 5300</b>  | Low phosphorous bright electroless nickel that produces a compressive stress hard deposit with excellent corrosion resistance in alkaline environments.   |
| <b>TECHNI EN 6500 PT</b>  | LEAD AND CADMIUM-FREE, electroless nickel medium Phosphorous. Bright deposit, high speed bath   |
| <b>TECHNI EN 9155</b>     | Semi-bright high phosphorous with high corrosion resistance. Self regulated pH.   |
| <b>TECHNI EN 9500</b>     | Electroless nickel with two components at low temperature ideal for plastic.  |
| <b>TECHNI EN 3500 TF</b>  | It's an advanced High Phosphorus Electroless Nickel Process designed to deposit a uniform, nickel phosphorus composite alloy with ultra-fine PTFE particles.  |

## ELECTROLESS PALLADIUM

|                               |  |
|-------------------------------|--|
| <b>TECHNICATALYST AT 4000</b> | Chloride free activator for to produce an immersion Palladium deposit for initiation of Nickel reduction on Copper, Copper alloys and other non-catalyst substrates prior to electroless nickel. |
| <b>TECHNI PD ACTIVATOR</b>    | Activator Copper and Brass surfaces to be treated with process of electroless Nickel and Gold.   |

## IMMERSION GOLD

|                              |   |
|------------------------------|---|
| <b>TECHNI IM GOLD AT6000</b> | Self limiting immersion gold bath for optimum solderability. Ideal for PCB.   |
| <b>OROMERSE-SO</b>           | NO CYANIDE immersion gold process developed to deposit up to 1 micron of gold onto electroless-nickel (low or high phosphorous content) and copper.   |
| <b>OROMERSE MN</b>           | Immersion gold process formulated to produce 0,1 – 0,2 µm gold deposits over several types of electrolytic and electroless deposits. Suitable for brass, copper, silver and electroless Nickel. |

|                                     |   |
|-------------------------------------|---|
| <b>TECHNIPAD AU 6100</b> <i>New</i> | Cyanide based immersion gold plating process designed to provide a thin pure gold deposits onto electroless nickel and electroless palladium. |
|-------------------------------------|---|

## IMMERSION SILVER

|                        |  |
|------------------------|--|
| <b>ARGENTOMERSE NC</b> | NO CYANIDE immersion silver. Nitrate free. |
|------------------------|--|

## IMMERSION TIN

|                               |   |
|-------------------------------|---|
| <b>STANOMERSE</b>             | Immersion Tin easy to use on Brass and Copper.  |
| <b>TECHSTAN AL</b> <i>New</i> | Immersion Tin process designed to promote adhesion of electroplated metallic coatings on Aluminum and Aluminum alloys substrates avoiding the use of product containing zinc. |

# PASSIVATION – FINISHING AGENT – TOP COAT

## BRASS

|                      |  |
|----------------------|--|
| <b>PROTEX 65</b>     | Liquid protective product prevents oxidation and stains over copper alloys. Can be used without rinse after. |
| <b>TARNIBAN 2000</b> | Chrome free, metallic Passivation for Brass and Copper. Produces thin, inorganic film that can be painted.   |

## GOLD

|                       |   |
|-----------------------|---|
| <b>TARNIBAN KS II</b> | Can be applied by immersion or anodically for increase protection. Passes sulfide tests. Chrome free. |
|-----------------------|---|

## SILVER

|                       |  |
|-----------------------|--|
| <b>TARNIBAN 51</b>    | Produces INORGANIC, thin colorless and paintable film with good resistance to corrosion with improved solderability and no effect on electrical performance. |
| <b>TARNIBAN KS II</b> | Can be applied by immersion or anodically for increase protection. Passes sulfide tests. Chrome free.  |

## NICHEL

|                              |   |
|------------------------------|---|
| <b>TECHNISEAL</b> <i>New</i> | Is a cathodic electrolytic passivation system based on trivalent chromium, that provides a transparent nano-scale coating on black electroless nickel coatings. |
|------------------------------|---|

## TIN

|                       |  |
|-----------------------|--|
| <b>TARNIBAN C 50</b>  | Provides protection of tin and tin alloy from the discoloration following exposure to high humidity/steam environments plus dry thermal exposure (Reflow/oven bake)  |
| <b>TARNIBAN C 48</b>  | Specifically designed for use on tin and tin alloy deposits which are subjected to post-plate thermal exposure in high humidity/steam environments. For optimal results, Tarniban C 48 should be used in combination with Techni PST Neutralizer. Suitable also for Nickel and Copper. |
| <b>TARNIBAN E 260</b> | Post treatment process to protect Tin and Tin alloy deposits from oxidation and discoloration when subjected to thermal conditioning i.e. reflow.  |

## ZINC

|   |   |
|---|---|
| <b>TOPCOAT 11</b>                       | Sealer for zinc plated and passivated surfaces.   |
| <b>TOPCOAT 14</b>                       | Specially formulated organo-mineral liquid concentrate used to increase corrosion protection to zinc and zinc-alloys electroplated surfaces (Zn/Ni, Zn/Fe). |
| <b>TOPCOAT IG 21</b> <i>New</i>         | Sealer in emulsion to increase the corrosion resistance, specific for low friction coefficient.   |
| <b>METASU YC-T (I)</b> <i>New</i>       | Clear Top Coat/Sealer water based.  |
| <b>METASU LUBRUS KE 1(I)</b> <i>New</i> | Chrome free black top coat agent with high corrosion resistance.  |

|  |  |
|--|--|
| <b>METASU LUBRUS CE 1 (I) <i>New</i></b> | Chrome free clear top coat agent with high corrosion resistance.   |
| <b>WONDER CFY 1</b>                      | Trivalent chromium BLU conversion COBALT FREE HIGH CORROSION RESISTANCE for acid and alkaline processes.                               |
| <b>WONDER GR 14</b>                      | Trivalent chromium conversion HIGH CORROSION RESISTANCE for acid and alkaline processes.   |
| <b>WONDER SB 18</b>                      | Trivalent chromate BLU conversion for zinc acid or alkaline with or without cyanide. Containing Cobalt.                                |
| <b>WONDER SH 4</b>                       | Trivalent Chrome based Chromate Conversion Coating of YELLOW IRIDESCENT color. Pale color.   |
| <b>WONDER TR 36</b>                      | Trivalent chromium BLU conversion COBALT FREE for acid and alkaline processes.   |
| <b>WONDER Z 1</b>                        | Hexavalent Chrome based Chromate Conversion Coating of black color.  |
| <b>WONDER Z 7</b>                        | Trivalent Chrome Conversion Coating of bright black color for alkaline Zinc.   |
| <b>WONDER Z 20</b>                       | Hexavalent Conversion Coating of bright green olive color.   |
| <b>WONDER Z 89 L</b>                     | Hexavalent Chrome based Chromate Conversion Coating of yellow iridescent color.  |
| <b>WONDER ZA/B</b>                       | Trivalent chrome conversion coating for dip black and high corrosion resistance for alkaline zinc.                                     |
| <b>WONDER Z BSR</b>                      | Trivalent Chrome based Chromate Conversion Coating of blue, Silver (white) and rainbow (iridescent) colors. High corrosion resistance. |
| <b>WONDER 11 A/B <i>New</i></b>          | Trivalent chrome black conversion for Zinc/Nickel deposits   |
| <b>WONDER CYN 11 A <i>New</i></b>        | Trivalent chrome blue conversion for Zinc/Nickel deposits  |
| <b>WONDER Z BL 30 <i>New</i></b>         | Trivalent chromium BLU conversion COBALT FREE for acid and alkaline processes.   |

## METALLOCHROMY

|                   |   |                           |
|-------------------|---|---------------------------|
| <b>MARK 15</b>    | Chemical process of vivid blue color.                                     | Silver, nickel, iron      |
| <b>MARK 10 L</b>  | Chemical darkening process used as conditioner for Brass.                 | Brass                     |
| <b>MARK 20 L</b>  | Blackening process by chemical dip.                                       | Copper, Brass and alloys. |
| <b>MARK 25 S</b>  | Green-copper color at room temperature.                                   | Copper, Brass and alloys. |
| <b>MARK 30</b>    | Direct blackening of iron surfaces. HIGH TEMPERATURE                      | Iron                      |
| <b>MARK 45</b>    | Darkening process for stainless steel. HIGH TEMPERATURE                   | Stainless steel.          |
| <b>MARK 60</b>    | Blackening process with blue reflex.                                      | Silver.                   |
| <b>MARK 71</b>    | Blackening process with black reflex, easy to brush for old effect.       | Silver.                   |
| <b>TECH OX P</b>  | Blackening process with raven-black reflex.                               | Silver.                   |
| <b>MARK 80 S</b>  | Blackening chemical dip.  | Zinc and Zamac            |
| <b>MARK 130</b>   | Chemical dip process for ancient bronze color with reddish reflexes.      | Copper and Brass          |
| <b>MARK 500</b>   | Chemical dip process for ancient bronze color                             | Copper and Brass          |
| <b>MARK 511</b>   | Chemical dip process for dark bronze color.                               | Copper, Brass and Nickel  |
| <b>MARK 350 P</b> | POWDER PRODUCT for ancient bronze color                                   | Copper and Brass          |
| <b>MARK 833</b>   | Chemical dip process for black color                                      | Brass                     |
| <b>MARK 5333</b>  | Room temperature direct blackening process for iron, steel and cast-iron. | Steel and Cast iron       |
| <b>MARK A 380</b> | Room temperature blackening solution for Aluminum.                        | Aluminum                  |
| <b>MARK SS 73</b> | Room temperature direct blackening process for STAINLESS STEEL            | Stainless steel.          |

## METAL STRIPPERS

|                         |  |
|-------------------------|--|
| <b>KEMSTRIP 41</b>      | Electrolytic anodic stripper for racks. Suitable for all metals.   |
| <b>KEMSTRIP 700 B</b>   | Electrolytic anodic Stripper for racks. ONE COMPONENT. Suitable for all meals.   |
| <b>KEMSTRIP AF/S</b>    | Metal stripper developed for removing, by simple chemical immersion of articles, deposits of nickel, copper, brass, from steel, without etching the metal underneath. Operates with cyanide. |
| <b>KEMSTRIP AU 92/P</b> | Stripper designed for removing by simple chemical immersion, Gold deposits from Brass, Copper and Nickel. Operates with cyanide.   |
| <b>KEMSTRIP CU 15</b>   | CYANIDE FREE liquid process to remove COPPER from steel and Nickel   |

|                                    |  |
|------------------------------------|--|
| <b>KEMSTRIP NI 87</b>              | Acid stripper to remove Nickel from brass and copper   |
| <b>KEMSTRIP NI A/B</b>             | CYANIDE FREE liquid process to remove nickel only for immersion from Iron, Copper and Brass.   |
| <b>KEMSTRIP NI Z</b>               | CYANIDE FREE liquid process to remove nickel from zamac plated with copper. For a short period doesn't etch zamac surface not well plated by Copper.   |
| <b>KEMSTRIP SN 60</b>              | Acidic stripper to remove tin and tin/lead from brass and copper   |
| <b>TECHNIC ENVIROSTRIP AG</b>      | Electrolytic inversed-current process, completely CYANIDE FREE, specifically formulated for removing silver deposits from metallic under-layer as copper, brass and nickel. It does not produces fumes during the metal removal. |
| <b>TECHNI STRIP SILVER SPECIAL</b> | Stripper based on Sodium Cyanide, has been formulated in order to eliminate, chemically, silver deposits from nickel surfaces, nickel alloys, copper, copper alloys and steel (iron) without damaging the base metal.            |
| <b>TECHN SOLDER STRIPPER JA</b>    | Immersion-type stripper which quickly and effectively removes tin, tin-lead, bronze and Tin/Cobalt deposits from Brass and Copper. Techni Solder Strip JA is a liquid concentrate in addition must be used hydrogen peroxide.    |
| <b>ACR 9050 PALLADIUM STRIPPER</b> | Chemical stripper for removing Palladium and Palladium-Nickel alloys. Contain Cyanide.   |
| <b>TECHNI EIP 1700</b>             | No cyanide stripper for electroless nickel low, medium and high P use in soak or electrolytic condition.   |

## DRYING AND PROTECTIVE PRODUCTS

|                               |  |
|-------------------------------|--|
| <b>PROTEX 73</b>              | Dryer and antioxidant for steel and cast iron.   |
| <b>PROTEX 87</b>              | Protective emulsifiable oil, particularly suitable as post treatment after blackening. For steel |
| <b>TECHNI AQUA SHED 1</b>     | Aqueous mixture with dewatering action. Suitable for all metals.                                 |
| <b>PROTEX 18 S</b> <i>New</i> | Emulsifiable oil suitable for iron protection, carbon steel and cast iron.                       |

## STRIPPER FOR VARNISHES AND PAINTS

|                  |   |
|------------------|---|
| <b>REMOVA RA</b> | Acid , not aqueous compound, used at full concentration, for removing epoxy enamels of difficult removal from almost all substrates. It can be used also to remove cathaphoretic lacquer transparent or colored. The removal is made by wrinkling of the enamels. |
| <b>REMOVA RH</b> | Strongly acid, not aqueous compound, used at full concentration, for removing epoxy enamels and resins of difficult removal from steel.   |
| <b>REMOVA RY</b> | Acid, not aqueous compound, used at full concentration, for removing epoxy enamels and resins of difficult removal from steel.  |

## VARNISHES

|                                  |  |
|----------------------------------|--|
| <b>112 ETCH PLATING</b>          | Removable paint to be used as protective to etching action in glass industry.  |
| <b>HIDROSOL 2002</b>             | The HYDROSOL-2002 is a colorless and transparent water based lacquer developed for protecting metals that, more than others, are subject to the oxidation for example Brass, Copper, Bronze, Iron etc.                         |
| <b>VERNICE PELABILE AZZURRA</b>  | Removable paint to be used as protective of surfaces that have not to be electro-plated.   |
| <b>VERNICE ZAPON TRASPARENTE</b> | Transparent varnish particularly suitable to protect several types of metals like: brass, copper, bronze, iron etc., it is also advisable as final protection of galvanized articles as: brass plated, gold plated parts, etc. |
| <b>GLOSSYCLEAR W 1</b>           | Transparent varnish in water matrix. Dry in oven.  |



**VERNICE PELABILE GIALLA**

Protective paint based on PVC, used for masking parts to submit at electroplating treatment, avoiding the covering of painted parts.

## CATHAPHORETIC LACQUER

|                            |   |
|----------------------------|---|
| <b>TECHNICLEAR 1100</b>    | Cathaphoretic lacquer that produces transparent coatings.   |
| <b>INTEGRAL DYE SERIER</b> | <p>Color additive for transparent cathaphoretic lacquer. Standard color available:</p> <ul style="list-style-type: none"> <li>- Black Integral Dye</li> <li>- Yellow Integral Dye</li> <li>- Red Integral Dye</li> <li>- Blue Integral Dye</li> <li>- White Integral Dye</li> <li>- Gold Integral Dye</li> <li>- Green Integral Dye</li> </ul> <p>Eventually is possible to obtain other shades mixing the standard color.</p>                                      |
| <b>POST DYE SERIES</b>     | <p>Color for cathaphoretic lacquer applicable as subsequent passage. Standard color available:</p> <ul style="list-style-type: none"> <li>- Brass Post Dye</li> <li>- Copper Post Dye</li> <li>- Standard Gold Post Dye</li> <li>- Special Gold Post Dye</li> <li>- Bronze Post Dye</li> <li>- Antique Bronze Post Dye</li> <li>- Black Post Dye</li> <li>- Red Post Dye</li> <li>- Blue Post Dye.</li> <li>- Green Post Dye.</li> <li>- Purple Post Dye</li> </ul> |

## 3D PRODUCT

|   |   |
|---|---|
| <b>TECHNI PRINT 3D SUPPORT CLEANER</b> <i>New</i> | Special product formulated for removing stratasys sr series support material. It is recommended for use in all support removal equipment. |
|---|---|

## MISCELLANEOUS

|                                      |  |
|--------------------------------------|--|
| <b>ELECTROBRIGHT F6</b>              | Bright anodic electropolishing for stainless steel.  |
| <b>TECHNI GOLD ADDITIVE AIA</b>      | Product which minimize or prevents gold immersion onto nickel substrates during high speed and selective plating in any gold solution.   |
| <b>TECHNI GOLD LCD POLARIZER</b>     | Is an additive specially formulated to inhibit the deposition of gold in low current density areas in gold plating solutions, in application where this capability is desired. |
| <b>TECHNI NI PURIFIER</b>            | Complexing agent for electroplating nickel baths, to remove metallic contamination.  |
| <b>TECHNI TIN LEAD CLEAR A FLOCK</b> | Recommended for use in tin and tin alloys baths. Acts by coagulating and precipitating the stannic tin. Can be readily filtered, leaving behind a clear plating bath.          |

|                            |  |
|----------------------------|--|
| <b>ANTISCHIUMA 24 ER</b>   | SILICONS FREE agent with 100% of active substance. Much stable in both acid and basic ambient. It doesn't produce foam when the temperature increases. |
| <b>TECHI ADDITIVE AU</b>   | Stabilizer product for acid gold plating solution.   |
| <b>TECHNISTAN ANTIFOAM</b> | Anifoam for all type of tin bath. Not contains silicone.   |

## ***NOTE***

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