COVENTYA

Product Technology Overview

Functional Technologies

Electroless Nickel, Ni-P & Ni-B alloys,
Hard Chrome, and Tin-Tin/Lead Alloys

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COVENTYA Inc. Beyond the Surface

132 Clear Road – P.O. Box 751 – Oriskany, NY 13424
Ph: (315) 768-6635 / Fax : (315) 768-3561

4639 Van Epps Road – Brooklyn Heights, OH 44131
Ph: (216) 351-1500 / Fax: (216) 351-5677

www.coventya.com

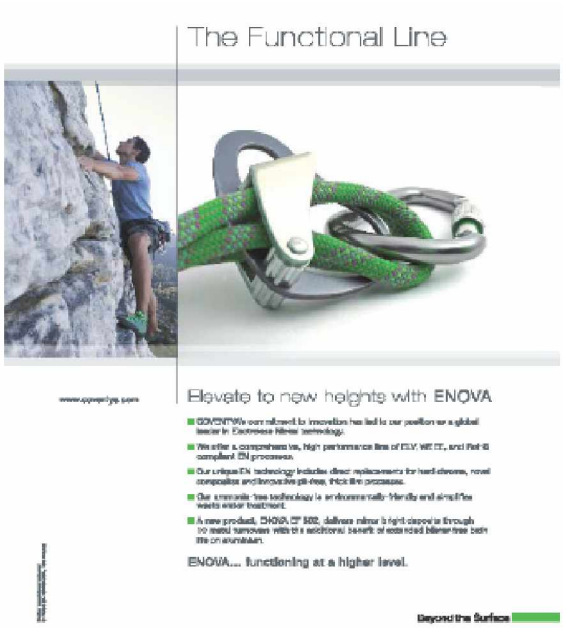
Preface

COVENTYA Inc, offers a full array of functional deposits ranging from Electroless Nickel, Ni-P & Ni-B alloys, including hard particle or soft particle composite coatings to Hard Chromium and Tin – Tin/Lead alloys. Additionally, in the support of the successful application of these deposits over various substrate types, we offer a complete line of cleaners and activators that will further assure the quality of the coating is right every time.

Leadership with Proven Technology

Electroless Nickel: A comprehensive offering of Engineering "alloys"

The **ENOVA** Electroless nickel product range is one of the more comprehensive available in the market today. Globally available but locally supported, let COVENTYA introduce you to **ENOVA**. From conventional Ni-P Alloy systems including composite deposits, to our **ENOVA EF**, Environmentally Friendly Series, which continues to be the industry standard in exceeding the demands for RoHS, ELV and WEEE compliance today. We'll provide you with the right **ENOVA** Solution for your application.



COVENTYA technology is designed to achieve the properties and performance in demand by Engineers, OEM's, Captive or Job Shop process line personnel and others who require superior corrosion or wear performance in numerous environments.

Engineers can rely on **ENOVA** deposits exceeding performance requirements including wear resistance and corrosion protection while process line personnel appreciate the ease of operation, consistent deposition performance and versatility under all types of production conditions.

The **ENOVA** conventional product range include deposits that are bright or semi-bright and lead or cadmium free systems which are specifically formulated to meet your most demanding metal finishing applications. If we don't have what you need readily available, we will work directly with you to develop a system to meet your requirements.

ENOVA EF 500 Mid Phosphorus series

- The industry standard for lead and cadmium free mid-phos Ni-P alloys, our systems are available in both semi and full bright versions, designed to perform without loss of brightness throughout the entire solution life. Typical solution life over 10 MTOs is achievable while several systems will plate on aluminum substrates up to 8 MTOs without utilizing a strike. These systems are designed to be stable and user friendly.

ENOVA EF High Phosphorus series

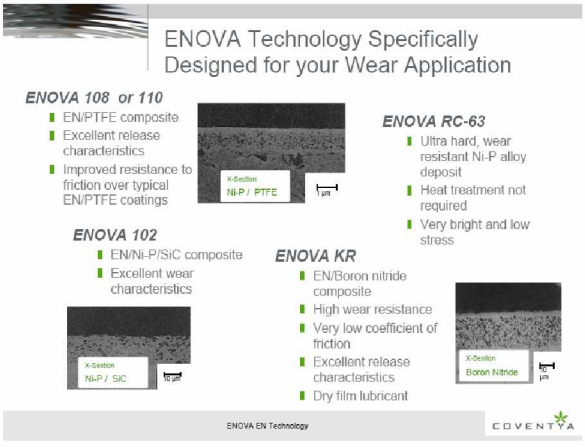
- Our complete line of compliant high phosphorous chemistries provides the most homogenous, defect free Ni-P alloys available in the market today. With a wide variety of formulations to choose from, we have the exact bath to meet your specific application needs. Whether heavy build deposits, high speed, or high corrosion resistance, our high phosphorus EN systems can meet the demand.

ENOVA GR series

- EN chemistries that operate from 3 g/L nickel concentration which is 1/2 the nickel concentration of standard baths without suffering any loss in performance. These chemistries can offer savings of 10% in nickel usage through reduced drag-out and waste treatment of nickel metal with minimal compromise on solution performance.

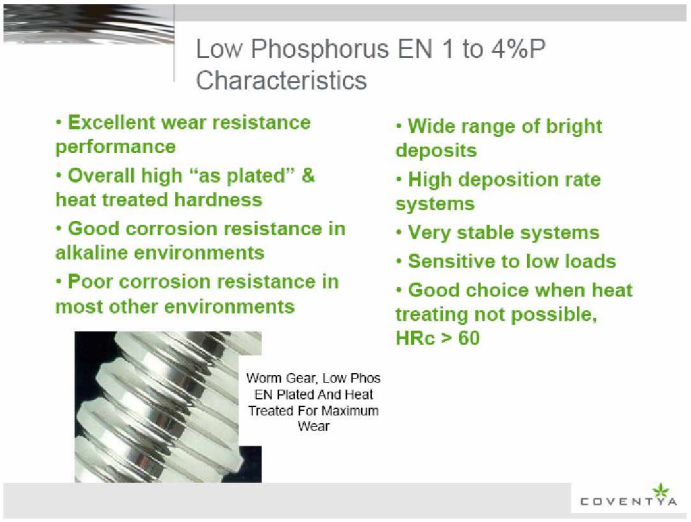
ENOVA Composite Coatings

- For demanding wear applications, consider the incorporation of a hard particle, either Boron Nitride (BN), Silicon Carbide (SiC), Diamond, or a soft particle (PTFE® DuPont) for further enhancement of the coatings' resistance to wear. We can help you engineer the right deposit for your need. The **ENOVA KR** system, a specialty Ni-P-BN alloy, can be a replacement coating for hard chromium deposits in many applications but is best suited where wear occurs under heavy loads. Ni-P-PTFE coatings are ideally suited especially where low friction is required and our offering of high phosphorus **ENOVA 110** or **ENOVA 108** medium phosphorus Ni-PTFE deposits cover all potential applications.



COMPOSITE EN SYSTEMS				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA 108	Ni-P PTFE Codeposit	Wear Performance	Mid phos EN/PTFE composite deposit, 15 – 18% v/v PTFE. 7 – 9% P. Can use with ENOVA TSC-CS wetting agent if required for application.	No
ENOVA 110	Ni-P PTFE Codeposit	Wear Performance	High Phos EN/PTFE composite deposit, 20 – 25% v/v PTFE. 10 – 11%P. Can use with ENOVA TSC-CS wetting agent if required for application.	Yes
ENOVA 102	Ni-P-SiC Codeposit	Wear Performance	EN/Hard particle composite deposit (SiC,), depending on the particle, up to 25% w/w of the particle occluded. Ni-P alloy with 5-9%P.	No
ENOVA KR	Ni-P Boron Nitride	Wear Performance	EN/Boron Nitride Composite deposit; 6 – 8% w/w BN particles, NiP alloy 4 -6%P. EN under-layer recommended.	No

Low Phosphorus alloy deposits, ranging from 1.5 to 4.0 % by weight phosphorus, are primarily utilized in specialized wear or electronic applications. They are ideal for soldering or brazing and can be welded. The deposits are compressively stressed, have good elongation (ductility), and provide excellent hardness and wear resistance, as plated or heat-treated. In alkaline corrosive environments they out-perform high phosphorus deposits.



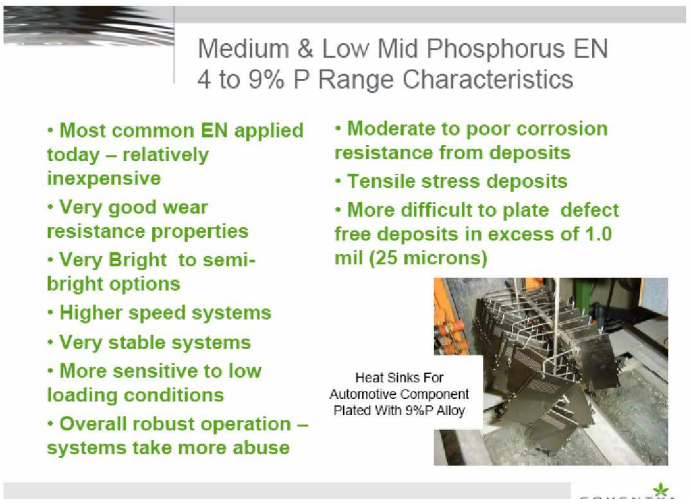
LOW PHOSPHORUS (< 4%P)				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA 241	Ni-P Semi bright	Wear & Corrosion	1 to 4.0%P, 3 component system, 5.4 g/L Ni/ 22 g/L Hypo, pH 6 0 6.6.	No
ENOVA 242	Ni-P Bright	Wear & Corrosion	Bright Version of ENOVA 241. Available in matrix version 242X	No

LOW MID PHOSPHORUS (4 – 6%P)				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA 163	Ni-P Bright	Wear & Corrosion	Hard-as-plated, low to mid phos EN that contains lead and cadmium. Bright, white deposit that plates at Rc 61-64 and heat treatable to Rc70. Compressively stressed throughout life. Very user friendly bath, two replenishment options – add own pH or self pH regulated.	No
ENOVA EF 163	Ni-P Bright	Wear & Corrosion	Lead free-cadmium free version of RC63, low to mid phos EN. Bright, white deposit that plates at Rc 61-64 and heat treatable to Rc70. Very user friendly bath, two replenishment options – add own pH or self pH regulated.	Yes Pb & Cd free

Medium Phosphorus alloy (7 – 9%P) deposits are typically utilized and suited for many types of applications. The deposits provide good corrosion protection and offer good as plated and as heat-treated hardness and wear resistance. These deposits can range in brightness (high reflectivity) from, very bright, bright, to low reflectivity with semi-bright, and matte in their appearance. The chemistries used to produce these deposits operate under a variety of conditions and provide the most versatile processing capabilities.

Medium-Low Phosphorus alloy (4 – 6%P) deposits are characterized by providing high hardness and excellent wear resistance both in the “as plated” and “as heat-treated” condition. These typically have the best all around wear performance for systems that are easy to operate.

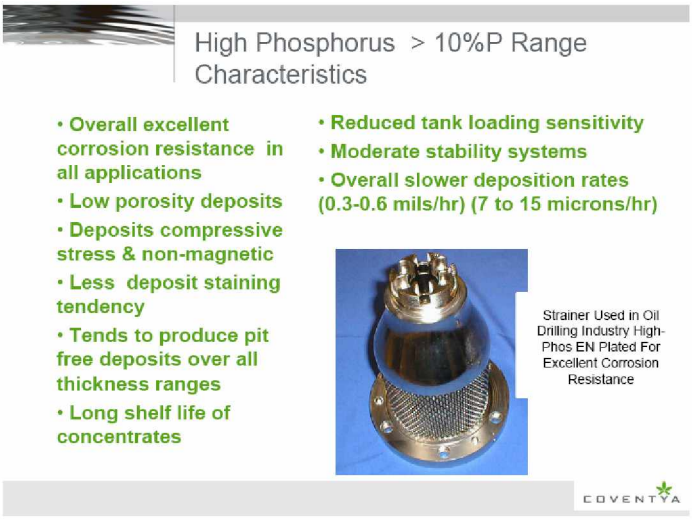
They offer engineers new opportunities for EN utilization while the metal finishers who use these technologies recognize improved operation, deposition rates and throughput, and as a result, they continue to become more versatile.



MEDIUM PHOSPHORUS (7 – 9%)				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA 540 or 541	Ni-P bright or semi-bright	Corrosion & wear	540 full bright, 541 semi-bright, General job shop system. Stable, high speed (0.7 -1.0 mils/hr), consistent rate over life. Various replenishment options (self pH or add own pH) with option to use as matrix with LNS.	No
ENOVA 570 or 571	Ni-P bright or semi-bright	Wear & Corrosion	570 full bright, 571 semi-bright. Higher speed than 540/541 but less stable under adverse conditions. (0.8 – 1.1 mils/hr), P range 5 to 7%. Two replenishment options –add own pH or self pH regulated.	No
ENOVA M14 or M15	Ni-P semi-bright or bright	Corrosion & wear	M15 full bright, M14 semi-bright. Higher chelation than 540 or 570, better stability and improved for barrel/rack plating. Slower rate vs. 540. Two replenishment options – add own pH or self pH regulated. M15T available if problems plating brass and copper. H15ABF is fully ammonia free version	No
ENOVA 545 or 546	Ni-P semi-bright or bright	Corrosion & wear	546 full bright, 545 semi-bright. Very stable, Higher chelation M14/M15 which is excellent for barrel plating. Two replenishment options – add own pH or self pH regulated	No
ENOVA 551 AF	Ni-P bright	Corrosion & wear	Long Life on aluminum, high tolerance for zinc, Ammonia free (uses Potassium carbonate) self pH regulated replenishment.	No
ENOVA EF-7	Ni-P semi-bright	Corrosion & wear	Semi-bright, achieves improved salt spray resistance than EF8/EF9. EF7R system is required for self pH regulated using EF-7AMR / EF-7BR / EF-7CMPR. Fully ammonia free operation with EF-7CMKR.	Yes, Pb and Cd free
ENOVA EF 581	Ni-P semi-bright	Corrosion & wear	Semi-bright, with bath life in excess of 12 MTOs. Can be used on aluminum without strike for at least 8 MTOs. Many replenishment options. Also EF581X matrix version available. EF83 -4 component system available.	Yes, Pb and Cd free
ENOVA EF 583	Ni-P semi-bright	Corrosion & wear	Semi-bright, with bath life in excess of 12 MTOs. Can be used on aluminum without strike for at least 8 MTOs. Improved plating on copper alloys and stainless steel alloys than EF-581 system. EF583 only add own pH option. EF 583R system provides self pH regulated operation including complete ammonia free operation if required.	Yes, Pb and Cd free
ENOVA EF-9	Ni-P bright	Corrosion & wear	Fully-bright, with bath life in excess of 12 MTOs. 6 to 9% P. Does not plate on stainless steel (racks). Can be used on aluminum without strike for at least 8 MTOs. Many replenishment options. Can use with Electrodialysis systems (EF9E). Also EF9X matrix version available.	Yes, Pb and Cd free

Systems	Type	Purpose	Primary Features	RoHS compliance* Lead free or Cadmium free
ENOVA EF 516	Ni-P bright	Wear & corrosion	Fully bright, 4 component chemistry that is based on the EF9 bath. Use the EF520 for improved stability and brightness where high tank loading or 80% work is barrel plating.	Yes, Pb and Cd free
ENOVA EF 592	Ni-P bright	Corrosion & wear	Fully-bright, with bath life in excess of 12 MTOs. Can be used on aluminum without strike for at least 8 MTOs. Improved plating on copper alloys and stainless steel alloys than EF-9 system. Good for thick deposits. For self pH regulated operation, use EF592R with ammonia. Use EF 592 CMNB for improved brightness and performance on barrel lines.	Yes, Pb and Cd free
ENOVA EF 594	Ni-P bright	Corrosion & wear	Improved stabilizer system over 592 for further initiation on copper/brass alloys. Good for thick deposits. Fully-bright, self pH regulated replenishment, can use own nickel if required.	Yes, Pb and Cd free
ENOVA EF 507	Ni-P semi-bright	Corrosion & wear	The process has advanced stabilizer system which promotes excellent adhesion on aluminum where the deposit can pass the 550°F adhesion bake without blistering. 4 component system, self pH regulated ammonia option.	Yes, Pb and Cd free
ENOVA GR 502	Ni-P bright	Corrosion & wear	Fully-bright, that operates at 3 g/l of nickel. Based on EF9 chemistry platform.	Yes, Pb and Cd free

High Phosphorus deposits overall provide the greatest corrosion protection and corrosion resistance in the widest variety and types of environmental conditions to where they are exposed. These deposits are non-magnetic as plated and some formulations will maintain their deposit non-magnetic characteristics up to temperatures of 300°C for 1 hour. High phosphorus deposits are particularly suited for heavy build up depositions (100 microns or more in some applications) or salvage rework applications. Typical high phosphorus systems produce low internal stress deposits and provide the best ductility or elongation properties which are suited for many engineering applications.



HIGH PHOSPHORUS (> 10% P)				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA H10	Ni-P semi-bright	Corrosion	General purpose system. Good all around job shop bath. Matrix version H10X available. Variations on this chemistry for specialty apps include: Variations include ENOVA 940 and ENOVA 951.	RoHS compliant (<1000 ppm Pb deposit)
ENOVA 940	Ni-P bright	Corrosion	Specialty, bright version of H10 system.	No
ENOVA 951	Ni-P semi-bright	Corrosion	Specialty version of H10 system, has less stabilizers on makeup than H10, ideal for special applications or where too high solution agitation exists.	RoHS compliant (<1000 ppm Pb deposit)
ENOVA H14	Ni-P semi-bright to bright	Corrosion	Specialty bath for very high loading > 1.0 ft2/gal rack/barrel and specific customer applications. Not designed for general job shop operation. Matrix version H14X system available. ENOVA 949 is lower stabilized version of this chemistry which is RoHS compliant.	No
ENOVA 949	Ni-P semi-bright	Corrosion	Job shop version of H14 chemistry, Very good deposition rate (>0.0005 inches/hr) over all load sizes and work conditions including low loading. Improved initiation over copper and brass substrates.	RoHS compliant (<1000 ppm Pb deposit)
ENOVA 950	Ni-P semi-bright	Corrosion	Variation of 949 type chemistry; Designed for high thickness, and low stress over life, deposits very low roughness (smoother).	RoHS compliant (<1000 ppm Pb deposit)
ENOVA H15	Ni-P semi-bright	Corrosion	Improved corrosion performance over H10/949 type, all around production better for higher thickness plating. Replenishment option for complete ammonia free operation. Matrix H15X version available.	RoHS compliant (<1000 ppm Pb deposit)
ENOVA 944	Ni-P semi-bright	Corrosion	Designed specifically for heavy build, that can be used for deposits up to 750 microns with up to 14% phosphorus	RoHS compliant (<1000 ppm Pb deposit)
ENOVA 965	Ni-P semi-bright	Corrosion	Specialty, very heavy loading capable > 2 ft2/gal, semi-bright high phos EN with lead. Has high stabilizer level. Matrix version 965X available.	No
ENOVA 967	Ni-P semi-bright	High Corrosion	Specialty EN developed for very high corrosion resistance applications. Not designed for general job shop plating but specific High Phos applications	RoHS compliant (<1000 ppm Pb deposit)

Systems	Type	Purpose	Primary Features	RoHS compliance* Lead free or Cadmium free
ENOVA EF 993	Ni-P semi-bright	Corrosion	Complete lead free system, advanced stabilizer system to provide robust operation in all types of installations. Self pH regulating option available.	Yes, Pb free
ENOVA GR 901	Ni-P semi-bright	Corrosion	System that operates at 3 g/L nickel metal. Based on H15 chemistry platform.	Yes, Pb free

ENOVA ENDIGO Process

- Technology that adds a splash of color and new appeal especially for our **ENOVA EN** deposits as this immersion process provides the capability to color Ni-P and other Nickel deposits for many applications. Achievable colors include Yellow, Brown, Red, Purple and Blue which are produced from an ELV compliant, room temperature, non-electrolytic coloring solution. Our **ENDIGO** technology is changing the face of nickel forever.

ENOVA IMAGEN Process

- Electroplating magnesium has always been a challenge for finishers until now. Our **IMAGEN** EN process simplifies the plating of magnesium alloys for either functional or decorative applications. The **OPTIBOND Mg** preparation process provides adherent, blister free plating with our **ENOVA** electroless nickel or where a highly decorative requirement exists, our **CUBRAC** Copper, **CRYSTAL** Nickel and **TRISTAR** decorative Chromium system enhances the appearance of magnesium surfaces. Our **IMAGEN** is a simple, straightforward process that operates without the use of chromic acid, phosphoric acid or nitric acid while providing improved corrosion performance over many types of direct plating magnesium methods.

ENOVA Specialty Systems

- When required, our comprehensive EN line offering is further supported with Electroless strike chemistries, alkaline or acid formulations, or our Ni-B alloy, ENOVA 103 when resistance to wear and high deposit hardness is beneficial or if extended solderabiltiy is required.

SPECIALTY SYSTEMS				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA ENDIGO	Ni-P	Coloring Process	Immersion coloring process for ENOVA Ni-P deposits.	Yes, Pb free

Systems	Type	Purpose	Primary Features	RoHS compliance* Lead free or Cadmium free
ENOVA IMAGEN	Ni-P	Magnesium Plating Process	Plating process for Magnesium alloys, thixomolded, diecast AZ91 and AZ31 alloys	RoHS compliant
ENOVA EF 100	Ni-P	strike	An ELV compliant alkaline strike that deposits a thin, uniform nickel/phosphorus coating onto zincated aluminum substrates prior to plating in a conventional acid electroless nickel bath. Operates 100F.	Yes
ENOVA 191	Ni-P	strike	Ammoniated EN strike for non-conductors, ceramics, glass and plastics. Operates at a pH of 10 and temp range 70 to 100F.	No
ENOVA 192	Ni-P	strike	Ammoniated alkaline EN strike for Aluminum or Zinc die cast. Operates at a pH of 10 and temp range 70 – 110F.	No
ENOVA 198	Ni-P	strike	Ammonia free EN strike for Aluminum or Zinc die cast. Operates at a pH of 10.5 and temp of 160 – 190F.	No
ENOVA 103	N-B alloy semi-bright	Solderabilitiy, hardness & wear	Produces a 1.5% up to 3.5% w/w B in deposit, DMAB reduced. Operates 150 to 160F and pH of 7.0	No

ENOVA Tools

- COVENTYA, Inc. offers many ancillary products and specialized additives to enhance operating and deposit performance of our EN systems. From reducing the potential for plate-out or stress reduction, to increasing corrosion resistance or improving solderability, we have the right ENOVA solution.

ENOVA TOOLS				
Systems	**Type**	**Purpose**	**Primary Features**	**RoHS compliance* Lead free or Cadmium free**
ENOVA STR-22		Wetting agent	Lowers surface tension. Does not affect corrosion performance of EN deposits. For use with all EN baths except any EN composites. Add 2 – 4 mL/gal operating bath. Allow 30 mins before parts to tank.	Yes
ENOVA STR-33		Wetting agent	Lowers surface tension more than STR-22. Good porous parts and heavy build. For use with all EN baths except any EN composites. Add 2 – 8 mL/gal operating bath. Allow 30 minutes before parts to tank.	Yes

Systems	Type	Purpose	Primary Features	RoHS compliance* Lead free or Cadmium free
ENOVA STR-44		Wetting agent	Additive for improving heavy build and reducing pitting in high phos. Use at 1 mL per gallon of EN bath.	Yes
ENOVA DS-17		Dispersing agent	Additive for improving the deposit performance by reducing roughness or pitting.	Yes
ENOVA BR 001		Metallic brightener	Additive to improve brightness to non-RoHS compliant EN systems. Add in increments of 0.5 mL per gallon of EN bath to brighten deposits. Never add on new make up.	No
ENOVA MS 001		Metallic stabilizer	Lead containing additive for stabilizing conventional EN systems. Added as a supplement to EN solutions when processing high workloads, castings, or when an aged bath has reached its maximum orthophosphate. tolerance. Added at 0.2 mL per gallon of working EN bath. MS001X is available to add to concentrate solutions. See TDS for details	No
ENOVA MS 014		Metallic stabilizer	RoHS compliant stabilizer for improving the performance of EF EN systems. Added as a supplement to EN solutions when processing high workloads, castings, or when an aged bath has reached its maximum orthophosphite tolerance. Maximum additions 0.05 mL/L at any one time to EN bath. See TDS for details	Yes
ENOVA MS 002		Metallic brightener & stabilizer	RoHS compliant brightener and stabilizer for improving the performance of EF EN systems. **ENOVA MS 002** is added directly to the operating solution or concentrate by mixing **ENOVA MS 002-B** to **ENOVA MS 002-E** in a 1:1 mixture. **THE "B" COMPONENT MUST ALWAYS BE ADDED TO THE "E" COMPONENT BEFORE ADDITION, OR PRECIPITATION MAY OCCUR**	Yes
ENOVA XL 008		Stabilizer	Non-metallic EN additive that increases plating rate and can overcome effects of over-stabilization or edge effect. See TDS for details	Yes
ENOVA CSI		Stress reducer	EN additive that is used to maintain compressive stress in high phos EN systems. See TDS for details. CSIX concentrate also available for adjusting EN concentrates.	Yes
ENOVA DH 020		Ductility enhancer	EN additive that can increase the ductility of high-phos deposits only. See TDS for details.	Yes
ENOVA S2		Stabilizer & brightener	Non-metallic liquid concentrate when added to EN solutions may increase plating rates or help reverse the effects of an over-stable solution. (ENOVA S2X and S2P versions available for concentrate adjustments when required).	Yes

Systems	Type	Purpose	Primary Features	RoHS compliance* Lead free or Cadmium free
ENOVA OS-8		Stabilizer	Non-metallic stabilizer for ELV compliant EN systems, especially high phos. Added as a supplement to EN solutions when processing high workloads or when conditions warrant its addition	Yes
ENOVA KC		pH adjust	A 460 g/L potassium carbonate pH adjustment component for non-ammonia pH operation.	Yes
ENOVA LSH		Hypo	A liquid, purified 500 g/L hypo concentrate to make bath adjustments to all hypo reduced systems.	Yes
ENOVA END 9 or 12		Waste treatment	A waste treatment additive that allows customers to treat their EN baths by plate out.	No

Hard Chromium Deposits

CHROME 450 Hard Chromium

- Provides chromium deposits from a system which plates at 3 to 5 times faster than conventional hard chromium systems. The high cathode efficiency of 25 to 35%, while operating at high temperatures of (158°F) 70°C, offers high productivity and throughput with all the attributes expected from a hard chromium deposit. **Not Available Until November 2010.**

CHROME NMP-1

- Versatile catalyst system that provides both decorative and hard chromium deposits based upon catalyst concentration.

Tin and Alloy Deposits

STARGLO Tin & Tin alloy series

- A full product range of products that offer versatility in operation supported with high quality pure tin, tin-lead deposits from MSA, Sulfate or Fluoborate electrolytes characterize this technology group. **STARGLO** technologies offer systems that produce different alloy options, matte to bright deposits, applications which can be high speed, reel to reel strip or wire, tab, rack or barrel. Meeting specification requirements for whisker mitigation, MSA based systems will meet requirements of MIL-STD-202F and MIL-STD-883C, and are WEEE, RoHS, and ELV threshold compliant.

Alloy	STARGLO System				
	SN 100	MSA - HS	MSA - BR	Matte	IT or IT-CU
Bright Tin Pure	Y	Y	Y		
Bright Tin Lead	Y	Y	Y		
Matte Tin Pure				Y	Y
Matte Tin Lead				Y	

STARGLO 100 Process

- A versatile addition agent system for plating either bright acid tin from a sulfate electrolyte, or 90/10 bright tin-lead from a Fluoborate electrolyte. This system is suitable for rack or barrel plating applications, as well as high speed strip, wire, or tab plating.

STARGLO MATTE Process

- A very versatile, yet extremely easy to use addition agent system for depositing a fine-grained, satin-like tin and tin/lead deposit from several different types of acid baths containing a large variety of metal contents. This enables the process to plate any alloy from pure tin to 60/40 tin/lead, by simply varying the metal ratios in a methane sulfonic, fluoboric or sulfuric based electrolyte.

STARGLO MSA HS Process

- A bright tin-lead plating process for high-speed applications utilizing a methane sulfonic acid electrolyte. Alloys ranging from pure tin to 60/40 tin/lead are possible. The process is specifically effective for high current density applications such as wire and strip plating. Deposits exhibit a very high degree of brilliance, yet they reflow easily because they do not contain a large amount of occluded organic matter.

STARGLO MSA B/R Process

- A bright tin-lead plating process for barrel and rack applications utilizing a methane sulfonic acid electrolyte. Alloys ranging from pure tin to 60/40 tin/lead are possible. Deposits exhibit a very high degree of brilliance, yet they reflow easily because they do not contain a large amount of occluded organic matter. Another significant benefit is that the process is more tolerant to the presence of excess addition agent than most competitive processes. This characteristic results in better low current performance.

STARGLO IT Process

- A highly reliable, single component system for depositing immersion satin tin coatings onto aluminum and aluminum alloy substrates.

STARGLO IT-Cu

- A ready to use, high build immersion tin plating solution used to produce a dense, solderable, coplanar deposit of tin on copper or copper alloy surfaces. The process is used at a slightly elevated temperature to produce a deposit of 1-micron (50 microinches) or better. When applied properly, ***STARGLO IT-Cu*** can be used as a final finish, hot air solder leveling replacement.

Surface Prep and Strippers

PRESOL, PRELIQ and PICKLANE Surface Preparation. Our Functional technologies and their unlimited applications can be further enhanced by utilizing our complete line of cleaners and activators designed to support the plating any type of substrate including ferrous, non-ferrous, light metals, non-conductors, plastics and ceramics. Your local Coventya representative can review the application and help choose the right **PRESOL** or **PRELIQ** cleaner, or **PICKLANE** activation to get the maximum performance from the Coventya plating system.

Plating on aluminum substrates can be challenging enough but utilizing our **OPTIBOND** non-chromium deoxidizers and **OPTIBOND** cyanide or cyanide free zincate technologies provide the assurance, backed by a high level of performance, that the job will be done right every time.

ENOVA NISTRIPR 501:

- There are times when Ni-P deposits require to be stripped and when that time comes you need to rely on a process that works. **ENOVA NISTRIPR** is a non-cyanide alkaline stripper that dissolves electroless nickel deposits from steel, copper and copper alloys and is ideal especially for stripping low to medium (2-9%) phosphorus electroless nickel deposits. High phosphorus deposits will also strip but at a slower rate. Electrolytic nickel deposits will also be removed to some extent.