

# Chemical specialities for water treatment

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# Working for a sustainable life

### Chemipol is a chemical company established in 1979, manufacturer and

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supplier of a wide range of biocides, additives and process chemicals. We provide innovative technologies, highly effective products and

expert support services through specialized technical sales groups with outstanding expertise in customer point of view.

Industries we supply	Products we provide
Water Membrane Processing Wastewater Treatment Water Potabilization Water Circuits Boilers	Biocides Process chemicals Equipments and dosing systems
Paints, coatings and inks Polymer emulsions Construction chemicals	Biocides Performance additives Pigments Decorative bases
Personal care Household care	Preservatives Multifunctional additives Plant hygiene products Microbiological services
Agrochemical	Biocides Performance additives
Paper	Biocides Performance additives Process chemicals
Oilfield and fuel	Biocides Performance additives

This catalogue present a guide to the chemical specialties we supply for wastewater treatment, water potabilization, desalination systems, water circuits and boilers.

# Wastewater processing, potabilization, desalination, water circuits, cooling towers and boilers.

**Chemipol** produce and supplies additives and specialties that are used during all process of different water treatment systems to optimize it.

### Product range

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Coagulants Flocculants Antifoam Activated Carbon Biocides Antiscaling agents Corrosion inhibitors Oxygen scavenger Multifunctional All in One Cleansing agents Biodispersants Membranes Cartridge Filters

# Products for water treatment

# Coagulants and Flocculants



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**Chemipol** provide a complete range of coagulants and flocculants to obtain a well sedimentation in the physicochemical process as well as with the different systems of dewatering, press filters, belt filters and decanters.

We have outstanding expertise working with these products, therefore we can provide a complete technical advising support with laboratory and industrial tests, selecting the best product, optimal dose, and best dosage point.

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## Coagulants

The CHEMIFLOC® family incorporates a complete range of coagulants to destabilize the colloidal particles in physicochemical processes of water treatment.

The range includes Inorganic coagulants based in different salts, Organic coagulants based in Polyamine, Polydadmac and Mixtures of organic and inorganic coagulants.

- Wastewater treatment plants.
- Reverse Osmosis filtration plants.
- Purification plants.

Product / Family	Description	Remarks
CHEMIFLOC FC family	Coagulants based on a combination of aluminum salt and polyamines or polydadmac.	Coagulant specific to treat water with high concentration of organic material.
CHEMIFLOC PAC family	Coagulants based on different concentrations of aluminum salt.	FDA Quality. Food grade.
CHEMIFLOC CF family	Coagulants based on iron salt.	FDA Quality. Food grade.
	Coagulants based on Polyamines or Polydadmac.	Coagulant specific to treat water at any pH.
CHEMIFLOC PA family		No extra sludge generated because it does not alter the pH so that the volume of sludge is not increased.
CHEMIFLOC PF family	Coagulants based on a combination of iron salt and polyamines or polydadmac.	Coagulant specific to treat water with high concentration of organic material.
CHEMIFLOC FS family	Coagulants based on a combination of aluminum salt and polyamine.	Coagulant specific to treat water with high concentration of organic material.



## Flocculants

The **CHEMIFLOC®** family incorporates flocculants for physicochemical and dewatering processes.

**CHEMIFLOC®** range includes anionic flocculants, cationic flocculants and non-ionic in both powder and liquid form.

- Wastewater treatment plants.
- Reverse Osmosis filtration plants.
- Purification plants.

Product / Family	Description	Remarks
CHEMIFLOC AM family	Anionic polyelectrolytes in solid form with linear chain with medium molecular weight.	Used in physicochemical processes of RO Systems. The best family to dewatering processes by belt filter and press filter.
CHEMIFLOC AH family	Anionic polyelectrolytes in solid form with linear chain with high molecular weight.	Used in physicochemical processes of RO Systems. The best family to dewatering processes by belt filter and press filter.
CHEMIFLOC AV family	Anionic polyelectrolytes in solid form with linear chain with very high molecular weight.	Used in physicochemical processes of RO Systems. The best family to dewatering processes by centrifuge or decanter.
CHEMIFLOC ANS family	Anionic polyelectrolytes in solid form with linear chain with high molecular weight.	The best family to dewatering processes by belt filter and press filter.
CHEMIFLOC AVS family	Anionic polyelectrolytes in solid form with linear chain with very high molecular weight.	The best family to dewatering processes by centrifuge or decanter.
CHEMIFLOC AHP family	Anionic polyelectrolytes in solid form with linear chain with high molecular weight. (Potable).	Product with low residual of monomer. Drinkin quality.
CHEMIFLOC AL family	Anionic polyelectrolytes in liquid form with linear chain with high molecular weight.	Product to treat big volumes of Sludge thanks its low time of maturation.
CHEMIFLOC N family	No-ionic polyelectrolytes in solid form with linear chain with medium-high molecular weight.	
CHEMIFLOC CM family	Cationic polyelectrolytes in solid form with linear chain with medium molecular weight.	The best family to dewatering processes by belt filter and press filter.
CHEMIFLOC CH family	Cationic polyelectrolytes in solid form with linear chain with high molecular weight.	The best family to dewatering processes by belt filter and press filter.
CHEMIFLOC CV family	Cationic polyelectrolytes in solid form with linear chain with very high molecular weight.	The best family to dewatering processes by centrifuge or decanter.
CHEMIFLOC CP family	Cationic polyelectrolytes in solid form with graft chain with high molecular weight.	The best family to treat sludge with high biological materials.
CHEMIFLOC CWP family	Cationic polyelectrolytes in solid form with graft chain with high molecular weight. Sludge dewatering in water purification plants.	Product with low residual of polyacrylamide, below 200 ppm.
CHEMIFLOC CL family	Cationic polyelectrolytes in liquid form with linear chain with high molecular weight.	Product to treat big volumes of Sludge thanks its low time of maturation.
CHEMIFLOC CLK family	Cationic polyelectrolytes in liquid form with linear chain with very high molecular weight.	Product to treat big volumes of Sludge thanks its low time of maturation.
CHEMIFLOC CLD family	Cationic polyelectrolytes in liquid form with graft chain with very high molecular weight.	The best family to treat sludge with high biological materials.
CHEMIFLOC DWC family	Cationic polyelectrolytes in water-based liquid form with linear chain with medium molecular weight.	Product with low residual of polyacrylamide, below 200 ppm.
CHEMIFLOC DWCH family	Cationic polyelectrolytes in water-based liquid form with linear chain with high molecular weight.	Product with low residual of polyacrylamide, below 200 ppm.
CHEMIFLOC DWA family	Anionic polyelectrolytes in water-based liquid form with linear chain with high molecular weight.	Product with low residual of polyacrylamide, below 200 ppm.
CHEMIFLOC A family	Anionic/cationic starches specially designed for drinking water treatment without acrylamide residual.	Pregelatinized product in flakes form to obtain better dissolution and maturation.



The **DENSIPOL®** family incorporates a broad spectrum antifoam agents and defoamers to control foam formation and release air bubbles.

- Wastewater treatment plants.
- Reverse Osmosis filtration plants.
- Biological tanks.
- Homogenizers.

Product / Family	Description	Remarks
DENSIPOL PA family	Defoamers and air releasers family based on the dispersion of different active substances in mineral oil.	Industrial processes and biological tanks.
DENSIPOL WO family	Defoamers family based on water emulsified in mineral oil	Industrial processes.
DENSIPOL RMB family	Defoamers family of emulsified silicones and inorganic hydrophobic compounds.	Waste water treatment plants. Best to remove foams in the last treatment steep.
DENSIPOL TA 4 family	Defoamers family based on modified organopolysiloxane emulsions.	
DENSIPOL AS family	Defoamers family based fatty acids and silicone derivatives	Waste water treatment plants. Best to remove foams in the last treatment steep.
DENSIPOL AF family	Defoamers family of aliphatic oxygenated minerals oils and Alkylethoxylated emulsifiers	Air realizer and defoamer ideal bio membranes.
DENSIPOL DF family	Defoamers family based in copolymers, ethylene oxyde and propylene oxyde.	Waste water treatment plants. Physicochemical RO processes. Potable plants.
DENSIPOL SI family	Defoamers family of emulsified silicones and inorganic hydrophobic compounds.	Industrial processes. Best to remove foams in the last treatment steep.
DENSIPOL DB family	Defoamers and air releases family based in dispersant agents.	Ideal aqueous systems.
DENSIPOL CN family	Defoamers and air releases family based in compound of aliphatic hydrocarburs	Ideal biological tanks.
DENSIPOL BIO family	Defoamer and air releaser family compound by vegetable oil.	Biodegradable product.
DENSIPOL BO 29	Polymeric antifoaming agent. FDA CFR 173.310	Antifoaming, defoamer specially developed for use in water vapor boilers, including high pressure. The product does not increase the conductivity of the water Avoid pull water into steam, and therefore dissolved salts, which have their origin in the formation of foam.



The **BIOPOL®** family incorporates broad spectrum biocides for disinfections and microbial control in water processing systems.

Recommended for use in:

- Nanofiltration membrane systems.
- Reverse Osmosis filtration systems.
- Re-circulated and reversible electro dialysis (RED).
- Brine treatment.

- Cooling towers.
- Closed circuits.

Product	Description	Application
BIOPOL RW	Formulation based on CMIT/MIT.	Broad spectrum microbiocide. Analytical kit: CMIT Detect.
BIOPOL TC 3	Formulation based on CMIT/MIT.	Broad spectrum microbiocide. Analytical kit: CMIT Detect.
BIOPOL IP	Formulation base don Isothiazolinones.	Broad spectrum microbiocide. Analytical kit: CMIT Detect.
BIOPOL K 3	Formulation based on CMIT/MIT.	Broad spectrum microbiocide. Analytical kit: CMIT Detect.
BIOPOL IB 200	Blend of CMIT/MIT and Bronopol.	Broad spectrum microbiocide. Analytical kit: CMIT Detect.
BIOPOL XM	Formulation based on MIT and BIT.	Broad spectrum microbiocide. Appropriate for closed cooling circuits. Analysis-detection kit
BIOPOL PG 25	Blend of CMIT/MIT and Glutaraldehyde.	Effective against slime forming, aerobic and anaerobic bacteria. Appropriate for closed cooling circuits. Analysis-detection kit
BIOPOL IQ 18	CMIT/MIT and polymeric quaternary ammonium biocide.	Broad spectrum microbiocide and good algaecide. Analytical kit: CMIT Detect.
BIOPOL C 103L	Biocide for disinfection based DBNPA.	Fast action biocide although hydrolyzes quickly in water
BIOPOL TP 30	Mixture of quaternary ammonium compounds.	Bactericide and algaecide.
BIOPOL LB 5	Stabilized bromide in liquid form.	Excellent biocide at high pH Cooling water and in presence of organic or process contamination where chlorine do not work properly. Analytical kit colorimetric by DPD.
BIOPOL B 40	Sodium bromide solution.	Biocide activated by hypochlorite.



### The CHEMIPOL® WT, CHEMIPOL® CT, CHEMIPOL® BO range incorporates broad spectrum

antiscaling agents to prevent fouling of salts and disperse salts in suspension. Recommended for use in:

- Nanofiltration membrane systems.
- Reverse Osmosis filtration systems.
- Re-circulated and reversible electro dialysis (RED).
- Brine treatment.
- Cooling towers
- Closed circuits
- Boilers (High and low pressure)

Family RO SYSTEMS	Description	Application
CHEMIPOL WT family	Antiscaling agent based in phosphonates. Organic $PO_4$ .	Highly effective against any scale. To the dose of application, it removes the residual chlorine of the water.
CHEMIPOL WT family	Antiscaling agent based in phosphonates (Organic $PO_4$ ) and policarboxilic acids.	Extremely effective to inhibit the scale by silica, besides calcium carbonate, calcium sulfate, barium sulfate, strontium sulfate and calcium fluoride among other sparingly soluble salts.
CHEMIPOL WT Series	Antiscaling agents based in special formulations for special cases.	Product range effective for silica, sulfates, iron, estruvite and other complex scales.
COOLING SYSTEMS		
CHEMIPOL WT 600 series	All organic blend of organic phosphorous, terpolymers and polymers. Stable at stress, high temperatures and over a broad pH range. It is chlorine resistant.	Scale inhibitor and dispersant for CW working with very scaling waters. Suitables to zinc, phosphates and excellent dispersant of iron and aluminium.
BOILERS		
CHEMIPOL BO 70 series	Multifuntional, Sequestrants, polymers and boiler alkalizers. FDA Polymer, phosphate and amine blend. FDA	Neutralizer products. Antiscaling and dispersant agent of hardness, silica and iron/metals salts Solubilizing internal treatment: antiscaling and dispersant agent. Condensate alkalizing.
CHEMIPOL BO 80 series	All organic blend of organic phosphorous and polyphosphates.	All organic program based in precipitation and/ or solubilization. FDA approval.



CHEMIPOL® IC and CHEMIPOL® BO families incorporate corrosion inhibitors based in phosphates, phosphonates, zinc, molybdates, polymers, for treating and protecting all type of materials composing the system.

Recommended for use in:

- Cooling circuits.

Family	Description	Application
CHEMIPOL IC 100 series	Corrosion inhibitors based on polyphosphate, zinc, inorganic phosphorous and food grade polyphosphates	Can be a sauce of inorganic phosphate in cooling water treatments. Fulfils the Norm UNE-EN 1212
CHEMIPOL IC 300 series	Corrosion inhibitors Combined of silicates, copper inhibitors, nitrites, inorganic and organic phosphorous polymers Protect steel, copper and its alloys	Low toxicity corrosion and scale inhibitor and dispersant for cooling waters, included some chilled circuits
CHEMIPOL IC 500 series	Formulations based on azoles.	Corrosion inhibitor of copper, bronze, brass and alloys.

### Recommended for use in:

- Boilers (high and low pressure).

Product / Family	Description	Application
CHEMIPOL BO 40 series	Volatile DEHA and neutralizing amines blend. It can be used for attemperation	Oxygen scavenger, passivator and steam/ condensate alkalizers.
CHEMIPOL BO 60 series	Neutralizing amines: morpholine. FDA	Corrosion inhibitor/alkalizing of boiler and steam-condensate lines
CHEMIPOL BO 90 series	Caustic soda. FDA	For Alkalizing boiler water.
CHEMIPOL BO 2000 series	Filming and neutralizing amines. FDA	All organic corrosion inhibitor that protect all the system, including condensate lines.



CHEMIPOL® BO family incorporate oxygen scavengers based in sulphites, carbohydrazide DEHA and other raw materials for treating and protect all type of circuit materials.

Recommended for use in:

- Boilers (high and low pressure).

Product / Family	Description
CHEMIPOL BO 30 series	Oxygen scavengers based on Sulph Hidrazine and Carbohydrazide. Cata sodium sulfite liquid. FDA 21 cfr 173
CHEMIPOL BO 40 series	DEHA (diethylhydroxylamine). It can attemperation.



Application

ohites, Oxygen scavenger for boilers, boilers and passivator and volatile oxygen scavenger. talyzed 73.310

n be used for Volatile oxygen scavenger and passivator.

# Multifuncionals and products All In One

**CHEMIPOL®BO** and **CHEMIPOL® IC** families incorporate multifunctional formulations with properties as corrosion inhibitors, antiscaling agents and/or oxygen scavengers based in phosphates, phosphonates, zinc, molybdates, azols, polymers and nitrites.

Recommended use in:

- Boilers (high and low pressure)

Product / Family	Description	Application
CHEMIPOL BO 40 series	DEHA, neutralzing amines, polymers and antifoaming agents	Multifunctional treatment: oxygen scavenger, alkalizing and antiscaling.
CHEMIPOL B0 70 series	Sulfite, polyphosphate and polymers with or without chelants. FDA	Multifunctional: oxygen scavenger, antiscale- dispersant of hardness, iron, silica, TH precipitating and sludge conditioners. Application: softened make up without desaerator.
CHEMIPOL BO 90 series	Mutlifunctional products based on sulfite, organic scavenger and passivator, organic phosphate, polymers. FDA	Multifunctional: O <sub>2</sub> scavenger and TH, iron, silica stabilizing, antiscale-dispersant For boilers of low- medium press
CHEMIPOL BO 100 series	Sulfite, organic scavenger and passivator, organic phosphate, polymers and mix neutralizing amines. FDA grade.	All in one treatment for softened make up water. With or without desaerator. Control program.

Recommended use in:

- Cooling circuit.

Product / Family	Description	Application
CHEMIPOL IC 100 series	Blend of inorganic and organic phosphate, azoles and organic polymers Protect ferrous and non-ferrous materials: cast iron, copper alloys and aluminium	Multifunctional corrosion and scale inhibitor/ dispersant For Cooling Towers (CT) corrosive waters, where neither zinc nor heavy metals can be used.
CHEMIPOL IC 200 series	Combination of zinc, organic phosphorous and polymers and antiscaling-dispersing polymers	Corrosion and scale inhibitor- dispersant for CT working in a neutral-alkaline pH range
CHEMIPOL IC 300 series	Formulation combining molybdate, nitrite and other iron, copper and aluminium inhibitors. Protect ferrous and non-ferrous materials.	Multifunctional corrosion inhibitor for closed circuits and diesel engines
CHEMIPOL IC 400 series	Formulation of prodcuts combining inorganic and organic phosphorous, azoles, molybdates and polymers for CT. Protect ferrous, copper, steel, galvanize materials and its alloys, depending product.	Corrosion and scale inhibitor appropriate for soft-alkaline water, where neither zinc nor inorganic phosphate function properly
CHEMIPOL IC 1000 series	Blend based on molybdate, azoles, organic phosphorous or polymers. Protect ferrous, aluminum copper and its alloys.	Multifunctional corrosion and scale inhibitor, dispersing agents for closed cooling circuits for demineralized, osmotized, softened or even hardness water.
CHEMIPOL WT 6000 series	Complete multifunctional product range to treat small cooling systems.	Multifunctional corrosion and scale inhibitor, dispersing agent for cooling circuits for demineralized, osmotized, softened or even hardness water.



The **CHEMINET**<sup>®</sup> family incorporates acidic and alkaline cleansing agents to control de bio fouling and scale deposition.

- Nanofiltration membrane systems.
- Reverse Osmosis filtration systems.
- Re-circulated and reversible electro dialysis (RED).

Product / Family	Description	Application
CHEMINET family	Cleaning agents acid or/and alkaline form based organic acids, inorganic acids o phosphates derivatives,	Nanofiltration membranes (NF), reverse osmosis (RO) and in re-circulated and/or reversible electro dialysis (RED) brine.
DETERPOL A 800 series	Blend of organic acids inhibited and surfactant- dispersants.	Descaling for deposits of calcium carbonate and others
DETERPOL A 830 series	Blend of organic acids inhibited and surfactant- dispersants.	Descaling for deposits of iron oxides and others.
DETERPOL A 300 series	Based on hydrochloric acid (HCl), chelating, dispersant, inhibited liquid	For dirty circuits: calcium carbonate, iron oxides deposits, etc Not for inox, galvanized, aluminum
DETERPOL N family	Blend of Chelating, phosphate, surfactants, detergent and polymers. Low foaming depending product.	Neutral cleaning / circuit pre cleaning Remove rust and scale, oils, organic matter.

- Brine treatment.
- Cooling circuits.



CHEMIPOL® BD family incorporate biodispersing agents to remove the biofouling from the circuits, preventing the proliferation of bacteria and the corrosion associated to biofouling formation.

CHEMIPOL® BD products can be used in combination with biocides, corrosion inhibitors and scale inhibitors.

Recommended use in:

- Cooling circuits.

Family	Description	Application
CHEMIPOL BD family	Blend of surfactants and non-ionic compounds	Bio dispersant and biocide enhancer Removes bio films, organic dirtiness oil and grease.



### Membranes

and most extensive manufacturers.

waste water treatment plants.

### Cartridge filters

dialysis (RED) brine.

The range is composed for polypropylene filters, cotton filters, activated carbon filters, with different sizes and different micron ratings.

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According to our experience and thanks to the years we have worked with leading brands, Chemipol can provide any type of membranes of the best

Membranes for sea water, brackish water, special membranes for tertiary

FILTERPOL® and BAGPOL® families incorporate cartridges filters and bag filters for physicochemical process in in nanofiltration membranes (NF), reverse osmosis (RO) and in re-circulated and/or reversible electro

8 ctivated carbon 0 37

The ORGANOSORB, AIRPEL and PARADIOX families incorporate activated carbons of

vegetal and mineral origin.

Recommended for use in:

- Wastewater treatment plants.
- Water purification plants.
- Groundwater treatment plants.
- Smoke filtration.
- Air filtration.
- Discoloration.
- Dechlorination.
- Manufacture of beverages.
- Fine chemistry.
- Pharmaceutical industry.

Product / Family	Description	Remarks
Organosorb	Activated carbon coconut, coal base, powder, granulate and pellets.	
Airpel	Activated carbon coal base, granulate and pellets.	
Paradiox	Activated carbon coal base and lignite, powder.	Incineration plants.



- Processes improvement.
- Foam control.
- Jar tests.
- Flocculation tests.

### Services to Reverse Osmosis Filtration Plants

- RO membrane autopsies.
- Analysis of metals in water.

### Services for suppliers to Cooling Circuits and Boilers

- Physic-chemical water analysis.
- Processes improvement.
- Product characterization and efficacy tests (software).

Chemipol offers expert technical support services that include:

### Services to Wastewater Treatment Plants

- Antiscalling characterization and efficacy tests (software OSMOPOL®).

- Physico-chemical water analysis.

## Chemipol in the world



Algeria · Austria · Bahrain · Belgium · Bolivia · Bulgaria · Canada · China · Colombia · Costa Rica · Cyprus · Czech Republic · Denmark · Ecuador · Egypt · Estonia · Finland · France · Germany · Ghana · Greece · Guatemala · Indonesia · Iran · Iraq · Ireland · Israel · Italy · Ivory Coast · Jordan · Kenya · Kuwait · Latvia · Lebanon · Libya · Lithuania · Malaysia · Malta · Mexico · Morocco · Nigeria · Norway · Pakistan · Philippines · Poland · Portugal · Romania · Russia · Saudi Arabia · Serbia · Slovenia · South Korea · Spain · Sudan · Sweden · Switzerland · Syria · Taiwan · Thailand · Tunisia · Turkey · Ukraine · United Arab Emirates · United Kingdom · Vietnam





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