



WE HAVE A DIFFERENT VIEW
ON CHEMISTRY

About us

Our passion for chemicals and specialty applications has been born 20 years ago.

With our chemical engineers with over 30 years of experience and know-how in various applications we are focused to give something better.
Unique money for value quality chemical products made in EU.
Our business is developed both by R&D department and Production and Quality department.

We are specialized in supplying a full service for water, pulp and paper treatment, utilizing specialized services including use of advanced technologies and customized chemicals, in order to satisfy needs and expectations of the clients in terms of quality, production, efficiency, safety and ecology.

Our business in numbers:

- Customer number: > 1000
- Business footprint: > 28.000.000,00 €
- 30 technical engineers
- 6 laboratory specialists
- Customers activity area:
Paper, food, chemical, pharmaceutical, textile, leather, plastic, hospital, power and cogeneration plant, etc

Our products are present in markets across Europe and Asia through our representatives:

- Austria
- Denmark
- Germany
- UK
- France
- Holland
- Hungary
- Iran

- India
- Slovenia
- Suisse
- Spain
- Portugal
- Turkey
- Serbia
- Etc...



Our markets

To maintain our high standard of customer satisfaction and to provide them with best available products on the market we are continuously developing and bringing new solutions for Your applications.

Our main markets:

CHEMICAL PROCESSING
FOOD & BEVERAGE
PULP & PAPER
OIL & GAS
GENERAL MANUFACTURING
ENERGY PRODUCERS
MINING
COMMERCIAL FACILITIES

R & D Laboratory

Our modern R&D laboratory based in Milan, represents for ALPHA chemicals an important effort for pursuing its quality objectives and new advanced Technologies.

2 million € of investment
6 laboratory specialists
400 m² of surface area
Pilot plants

Research and development projects

NEW liquid organic cationic coagulant
NEW biotechnological chemicals
Advanced all organic technology for high hardness cooling tower
NEW stabilized sodium bromide technology
Corrosion inhibitors for galvanized steel in water with at high pH and low hardness
Fuel preservative

On going projects

Developed of existing product range
Cooling systems
Biocides
Boiler treatments
Pasteurizers and sterilizers



Applications

Cooling water treatment products

Corrosion inhibitors

- ✓ High zinc technologies
- ✓ Low zinc technologies
- ✓ Molybdate
- ✓ Extended phosphate
- ✓ Total organic technologies

Antiscalants

- ✓ Phosphonate
- ✓ Polymers
 - Homopolymers
 - Copolymers
 - Terpolymers

Biocides

- ✓ Chlorine stabilizers
- ✓ Bromine activators
- ✓ Stabilized peracetic acid
- ✓ Non oxidizing biocides
- ✓ Biodispersant
- ✓ Specific chemicals against Legionella Pneumophila

Boiler treatment chemicals

Oxygen scavengers

- ✓ Sulfite
- ✓ Ascorbate
- ✓ DEHA
- ✓ Carbohydrazide

Condensate treatment

- ✓ Neutralizing amines
- ✓ Filming amines

FDA treatments

- ✓ Food industry
- ✓ Pharmaceutical industry

VOS technology

- ✓ treatment AVT
- ✓ Very fast reaction with O_2
- ✓ Promote passivation
- ✓ Stable at high temperature

Boiler sludge conditioner

- ✓ Phosphate cycle
- ✓ Dispersant polymers
- ✓ Silica and iron oxide scale prevention
- ✓ Alkalinity builder

Membrane treatment chemicals

- ✓ Antiscalants for general purpose
- ✓ Antiscalants specific for $CaSO_4$ and/or Silica scale prevention
- ✓ Biocides for membranes
- ✓ Chemicals for membrane cleaning
- ✓ Customized chemicals



Applications

Sterilizers / pasteurizers

- ✓ Antiscalant
- ✓ Corrosion inhibitors
- ✓ Biocide - biodispersant
- ✓ Shining with drainage and detergent effect

Pulp & paper chemicals

- ✓ Biocides for process
- ✓ Repulping aid
- ✓ Wet and dry strength improving
- ✓ Felt, wire and machine cleaning
- ✓ Softeners
- ✓ Flocculants
- ✓ Antifoam

Equipment & dosing

Tailored equipments for chemicals dosing and blow down managing based on:

- ▶ Tracer technologies
- ▶ TLC system
- ▶ Remote control

A-TRACE

Tracer technology **overcomes the limits** of the previous standard tracers based on fluorescein, with the use of **a very stable tracer substance, reducing the industrial water treatment costs and keeping a most reliable concentration value of the antiscalant or corrosion inhibitor chemical.**

Chemical guidelines

Product programming guidelines

BOILER treatment program

- Oxygen scavengers
- Multi purpose
- Deposit controllers
- Return line treatment
- pH controller /phosphate

COOLING treatment program

- Scale inhibition of open cooling systems - All organic treatment
- Corrosion inhibition of open cooling systems - All organic treatment
- Once-through systems
- Closed systems treatment (chillers and hot systems)

INDUSTRIAL water biocides

- Oxidizing Biocides
- Non-oxidizing biocides
- Others

REVERSE OSMOSE treatment program

- Antiscale
- Biocides
- Cleaning agents

STERILIZERS and PASTEURIZERS treatment program

- Sterilizer treatment of Retorts, Stock, autoclaves, FMC and Hydrostats
- Pasteurizers treatment
- Others



Chemical guidelines

Boiler Treatment



Oxygen Scavengers

Follow your local references value for the required sulphite reserve.
The sulphite residual for EEC standard is between 15 and 30 ppm

Product	Description	Approval
VAP 205	Non volatile oxygen scavenger with passivation properties - Acidic pH	FDA GRAS for food industry
VAP 206	Non volatile oxygen scavenger with passivation properties - Alkaline pH	FDA GRAS for food industry
VAP 253	DEHA oxygen scavenger	
VAP 254	DEHA oxygen scavenger	
VAP 264	Sulphite based oxygen scavenger	FDA
VAP 283	Carbohydrazide Oxygen scavenger	

Multipurpose products

Follow your local references value for the required sulphite reserve.
The sulphite residual for EEC standard is between 15 and 30 ppm

Product	Description	Approval
VAP 207	Non volatile oxygen scavenger with passivation properties and neutralising amines	FDA GRAS for food industry
VAP 208	Non volatile oxygen scavenger with passivation properties and dispersant effect	FDA GRAS for food industry
VAP 209	Non volatile oxygen scavenger with passivation properties, neutralising amines and dispersant effect	FDA GRAS for food industry
VAP 220	Phosphate, catalyzed sulphite and dispersant	FDA
VAP 235	Sulphite/DEHA, sludge conditioners and neutralizing amines	
VAP 244	DEHA and neutralizing amines	
VAP 250	DEHA and neutralizing amines	
VAP 260	Alkaline sulphite, neutralizing amines and dispersant	FDA
VAP 262	Alkaline sulphite and inorganic sludge conditioner	FDA
SP 9142	Alkaline sulphite and phosphate derivative inorganic sludge conditioner	FDA
VAP 265	Alkaline sulphite, sludge conditioner and dispersant	FDA
VAP 269	Sulphite/DEHA oxygen scavenger, dispersant and neutralizing amines	
VAP 285	Carbohydrazide and neutralizing amines	
VAP 525	DEHA, dispersant and neutralizing amines. Strongly alkaline	
VAP 525/A	DEHA, dispersant and neutralizing amines. Low alkalinity	

Chemical guidelines

Deposit Control

Use the local guidelines/ advice for the required phosphate reserve

Product	Description	Remarks	Approval
VAP 268	Phosphate-Phosphonate- polymer blend	Soft waters	FDA
VAP 272	Potassium Phosphate Solution	High pressure boiler (> 50 Bars)	
VAP 276	Organic sludge conditioner	Use for boiler < 64 bars	FDA
VAP 277	Sludge conditioner with alkaline phosphate	Specific for demi water and high pressure boiler	FDA
SP 9145	Sludge conditioner with alkaline phosphate	Specific for demi water	FDA

Condensate treatment

Product	Description	Dosage	Approval
VAP 203	Neutralizing amine based on morpholine	Minimum dosage 15 ppm	FDA also used for Hospital
VAP 229	Neutralizing amines with control of return pipelines	Minimum dosage 8 ppm	FDA

Alkalinity builder for boiler water

Product	Description	Dosage	Approval
VAP 261	Caustic alkalinity builder and dispersant	16 mg/l alk x 100 mg/l V. 261	FDA

Cooling Treatment



Once- through treatment

Product	Description	Notes
Polyflex 142/A	Phosphonates, polyacrylate	For low dosage, use phosphonate analysis by Acid demolition
Polyflex 104	Phosphonates polyacrylate	For low dosage, use phosphonates analysis by acid demolition
Polyflex 183	Hexametaphosphate solution and silicate solution	Corrosion and scale inhibitor. Use at temperatures lower 60°C
Polyflex 184	Phosphonates (HEDP)	For low dosage, use phosphonate analysis by acid demolition
Polyflex 186	Hexametaphosphate solution	Corrosion and scale inhibitor .Use at temperatures lower 60°C
Polyflex 190	Metasilicate solution	Corrosion and scale inhibitor .Use at alkaline pH ((-9)

Chemical guidelines

Open circuits all organic treatment

Product	Description	Notes
Polyflex 104	Phosphonates polyacrylates	Neutral pH product with new phosphonate polymer (WS)
Polyflex 105	Phosphonates and quats	Scale and biological lime control
Polyflex 106	Phosphonates polyacrylates	Neutral pH product with new phosphonate polymer (WS)
Polyflex 120	Phosphonates polyacrylates, copper inhibitor	Alkaline product with good corrosion inhibitor properties
Polyflex 130	Phosphonate, molybdate, adsorption organic inhibitor	Very good corrosion inhibitor for galvanized steel condenser
Polyflex 181	Terpolymer sulphonocarboxylic derivative	Excellent dispersant against inorganic deposit, sludge, iron oxides
Polyflex 188	Phosphonates polyacrylates and copolymer	Good corrosion inhibitor with antiscale properties
Polyflex 188 A	Phosphonates polyacrylates, copolymer and BZT	Good corrosion inhibitor with antiscale properties and yellow alloys inhibitor
Polyflex 191	Terpolymer sulphonocarboxylic derivative	Excellent dispersant of inorganic deposits as sand, sludge, iron oxides etc...

Closed systems treatment

Product	Description	Notes
Polyflex 171	Molybdate/phosphonate, dispersant and copper inhibitors	Specific for aluminium systems
Polyflex 173	Molybdate/phosphate, dispersant and copper inhibitors	Specific for aluminium systems
Polyflex 174	Molybdate Free, HPA based dispersant and copper inhibitors	Specific for closed systems chilled and hot water new system with various metallurgy
Polyflex 175	Molybdate, dispersant and copper inhibitors	Specific for closed systems chilled and hot water with various metallurgy
Polyflex 177	Molybdate, dispersant and copper inhibitors	Specific for closed systems chilled and hot water with various metallurgy
Polyflex 188	Phosphonates, copolymers and copper inhibitor	Specific for semi-closed circuit with an high water consumption
SP 9212	Molybdate, dispersant and copper inhibitors	Specific for closed systems chilled and hot water with various metallurgy
VAP 206	Oxygen scavengers with passivation effects	Specific for hot water system (> 100 °C)

Oxidizing Biocides

Product	Description	Mode of action	Advantages	Notes
Bio Bromine	Activated bromine chloride	Oxidation of proteins. Disruption of cell wall. Affects cell permeability and nutrient up-take. Proteins halogenation	Fast acting. Sporocidal. Active at low concentration and high pH value (9,0)	Bio Bromine doesn't need hypochlorite and special dosage equipment

Non-oxidizing Biocides

Product	Description	Mode of action	Advantages	Notes
Bio 416	Isothiazolinone	Metabolic inhibitor reacts at cell enzyme sites. Interferes with protein synthesis	Broad spectrum activity. No foaming, non-ionic.	Slow acting, long retention time is required
Bio 495	Biodispersant	Non-ionic, low foaming	Very effective at low dosage	

Chemical guidelines

Membrane Treatment



Antiscale chemicals

Product	Description	Advantages	Comments
Clean 301	Alcaline detergent	No caustic	For not so aggressive cleaning
Clean 302	Strong Alcaline detergent	Deep and fast cleaning action	Caustic cleaning
Clean 305	Phosphonate solution	Very concentrated	Specific for drinking water Approved DIN EN 15040
Clean 307	Polimeric solution	Very concentrated	Specific for silicate
Clean 309	Phosphonate and polyacrylate solution	Very effective	
Clean 333	Acid detergent	Effective and not very aggressive	
Bio 412	Biocide preservative	Inorganic treatment	Very safe against membranes
Bio 416	Isothiazolinone preservative and biocide	Broad spectrum activity. No foaming, nonionic.	Slow acting ,long retention time is required
Bio 425	DBNPA based	No membranes damage	Very fast. Refer to the standard procedures before cleaning

Product	Description	Advantages	Comments
Clean 330	Organic complexing agents for iron and calcium	Light alkaline cleaning	Could be used at higher temperature (70-120°C)
Clean 333	Acidic remove for scale and iron oxide	Effective and not aggressive	
Clean P	Concentrated solution of phosphoric acid with inhibitor	Effective and fast	Specific for stainless steel cleaning
Clean S	Powder Inhibited sulphamic acid with indicator	Very effective . Fresh solution is red purple,orange means acid is 80 % depleted	Specific for stainless steel cleaning

Chemical guidelines

Corrosion inhibitors

Product	Description	Advantages	Comments
Clean 337	Corrosion inhibitor for galvanized steel	Very effective for zinc and its alloys	Refer to the standard procedures before cleaning
Clean 346	Corrosion inhibitor for glycols	Very effective inhibitor for iron, copper, aluminium alloys	Follows the B.S.6580:1992 standard
Clean 350	Azoles solutions. Copper and its alloys inhibitor	Very effective adsorption corrosion inhibitor for yellow metals	
Clean 360	Corrosion inhibitor for phosphoric acid and sulphamic acid solutions	Very effective adsorption corrosion inhibitor for carbon steel and stainless steel	The dosage is depending of the acid concentration and the cleaning temperatures
Clean 361	Corrosion inhibitor for hydrochloric acid solutions	Very effective adsorption corrosion inhibitor for carbon steel and stainless steel	The dosage is depending of the acid concentration and the cleaning temperatures

Pasteurizers And Sterilizers Treatment



Product	Description	Comments	
Steri 503	Phosphonates solution, dispersant and surfactants	Excellent anti-scale with a good detergent and shining effect at low concentration	Specific for hard waters
Steri 504	Phosphonates solution, dispersant and surfactants	Excellent anti-scale with a good detergent and shining effect at low concentration	Specific for hard waters. Suggested for pasteurizers
Steri 505	Phosphonates solution, dispersant and surfactants	Excellent corrosion inhibitor with anti-scale and detergent effect for soft waters (< 10 °F)	Specific for soft waters
Steri 510	Phosphonates solution, dispersant and surfactants E	Excellent anti-scale and corrosion inhibitors with a good detergent and shining effect at low concentration	Specific for Barriquand sterilizers and/or where the systems changes from hard to corrosive waters
Steri 514	Phosphonates, molybdate solution, dispersant and surfactants	Excellent corrosion inhibitor with anti-scale and detergent effect for soft/medium waters	For very heavy corrosion problems of cans and vessels
Steri 590	Phosphonate, solution, dispersant and surfactants with organic polyphosphate	Very effective anti-scale and corrosion inhibitor with a good detergent effect	Specific for medium aggressivewaters
Steri 591	Blend of low foaming surfactants and dispersing agents.	Designed for the removal and emulsification of oils, fats and food residues, particularly during can washing and/or retorts sterilization	