

**atomes**

DIVISION OF  
**WATER &  
WASTEWATER  
TREATMENT**

**UNIQUE CHEMISTRY FOR**

Steam Boilers  
Reverse Osmosis  
Well Water  
Cooling towers  
Chillers  
Drinking Water Networks  
Sludge & Effluent Treatment

When Ethics &  
**Biotechnology**  
Meet For Water

[www.atomesbio.com](http://www.atomesbio.com)

## LOW TO MEDIUM PRESSURE BOILERS

### BOIL KLIN S **3 in 1 Technology**



Concentrated blend of chemicals designed to prevent deposition and corrosion in low pressure boilers.

**Boil Klin S** is an easy to administer single product, Economical and simple to test. It Contains:

- (1) Diverse anti-corrosion agents and Oxygen Scavengers to provide corrosion protection in both the boiler and the condensate system.
- (2) Diverse Micropolymers, Sequestering and Chelating agents are included to disperse any scale forming materials that may enter into the boiler water.
- (3) Antifoaming agents to regulate foam and prevent carry over.
- (4) Complexing 7 Dispersing agents that inhibits scale formation and deposition and acts as catalyst
- (5) Alkalinity control agent maintaining high pH levels

### AT 3100 **Alkalinity Control**

- (1) Used to adjust the water alkalinity in steam generators.
- (2) When used with a conventional phosphonates base treatment, AT 3100 allows for the formation of a fluid mud, which is easily eliminated through blow-downs.
- (3) Stabilizes mud in the boiler.
- (4) Prevents silica deposits.
- (5) Does not contribute to the formation of CO<sub>2</sub>.
- (6) Prevents silica deposits.
- (7) Concentrated liquid product.
- (8) Economical to use.

### AT 3433 **Liquid Oxygen Scavenger**

- (1) Catalyzed liquid ingredients blend designed to rapidly remove dissolved oxygen from boiler feed water.
- (2) Approved for use in food processing plants.
- (3) Prevents boiler and feed line corrosion.
- (4) Rapid oxygen and residual chlorine removal.
- (5) Easy to administer liquid product and easy to control via a simple test.
- (6) Concentrated formula Compatible with other boiler chemicals.

### IWT 400 **Liquid Neutralizing Amine**



- (1) Concentrated blend of three neutralizing amines designed to provide complete protection against carbon dioxide attack across a range of different pressures, within the steam/condensate system.
- (2) Easy to administer single product.
- (3) Highly concentrated formula & Protects against carbonic acid attack.
- (4) Synergistic three amine combination and Uniform system pH.
- (6) Suitable for use in high pressure plants

“ YES WE CAN!

Grabbing the Giants and taking care of your Turbines

Field Support Team

## AT 3080 **Scale Inhibitor For Medium Pressure Boiler**

- (1) Concentrated blend of synthetic and natural sequestering, dispersing agents and micro-polymer.
- (2) Contains two low molecule weight polymers along with sequestering agents in order to effectively control hardness salts.
- (3) Well suited for use with either precipitating or non-precipitating programs.
- (4) Shown to be effective at not only preventing boiler deposit but, also removing them.
- (5) Used across a broad range of pressures and make-up water qualities.
- (6) Approved for meat processing plants.
- (7) Easy to administer single product.
- (8) Low toxicity blend.
- (9) Compatible with all other chemicals.

## HIGH PRESSURE BOILERS

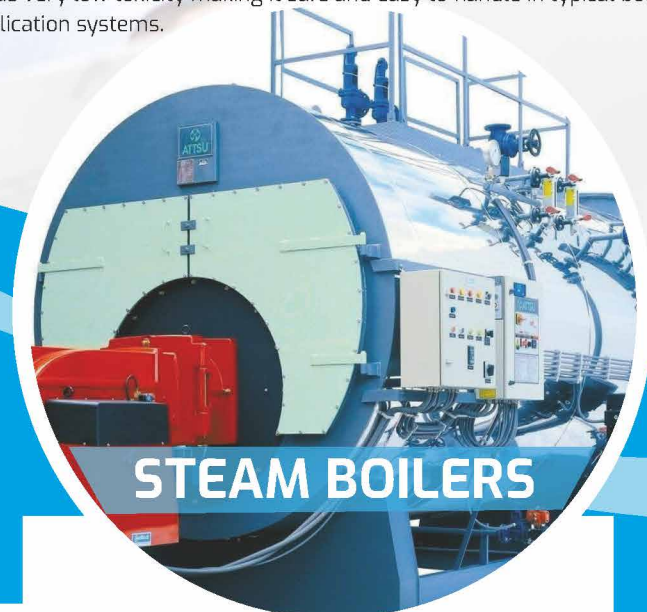
### AT 3060 **Scale Inhibitor For High Pressure Boiler**

- (1) Concentrated blend of synthetic and natural sequestering, dispersing agents and micro-polymer.
- (2) Contains two low molecule weight polymers along with sequestering agents in order to effectively control hardness salts.
- (3) Well suited for use with either precipitating or non-precipitating programs.
- (4) Shown to be effective at not only preventing boiler deposit but, also removing them.
- (5) Used across a broad range of pressures and make-up water qualities.
- (6) Approved for meat processing plants, Easy to administer single product.
- (8) Low toxicity blend & Compatible with all other chemicals.

### AT 4425 **DEHA Based Product**



- (1) Concentrated product containing diethylhydroxylamine.
- (2) Easy to administer product and protects against oxygen attack
- (3) Feedrate can be set independent of neutralizing amine demand
- (4) Rapid complete oxygen removal under typical boiler feed water temperature and pH conditions.
- (5) Promotes passivation of internal surfaces in the boiler system.
- (6) It is volatile similar to a neutralizing amine with the ability to distilled off the boiler, and is available to protect the entire steam condensate system as well as the feed water and boiler system.
- (7) Under the action of heat, some of the DEHA is degraded to yield two neutralizing amines which assist in elevating the pH in the condensate.
- (8) It has very low toxicity making it safe and easy to handle in typical boiler application systems.



STEAM BOILERS

LOW TO MEDIUM  
PRESSURE BOILERS

HIGH PRESSURE  
BOILERS

Boil Klin S 3 in 1  
AT 3100 Alkalinity Control  
AT 3080 Scale Inhibitor  
AT 3433 Liquid Oxygen Scavenger  
IWT 400 Liquid Neutralizing Amine

AT 4425 DEHA  
AT 3060 Scale Inhibitor For High Pressure Boiler

## REVERSE OSMOSIS FULL PROGRAM

### EQUATION RO **2 in 1 Antiscalant & Anticorrosive**

UNIQUE

- (1) 2 in 1 Antiscalant and anticorrosive.
- (2) Concentrated.
- (3) Combination of 10 ingredients with Micropolymers.
- (4) Work up to 50'000 TDS.
- (5) Cost efficient from 1 to 7 ppm.

### IWT 310 **2 in 1 Antiscalant & Anticorrosive All Purposes**

UNIQUE

- (1) 2 in 1 Antiscalant and anticorrosive.
- (2) Concentrated and multipurpose "RO, Feedwater tank, Boiler, Water network etc..."
- (3) Combination of 10 ingredients with Micropolymers.
- (4) Work up to 50'000 TDS.
- (5) Cost efficient from 1 to 7 ppm

### MAJESTY **Food Grade Biocide Certified for Use in RO**

PATENTED

- (1) Organic Peracids based 20%
- (2) Environment-friendly, non-toxic, non-harsh
- (3) Used at low concentrations: 0.5 to 5 ppm
- (4) Active through wide pH range
- (5) will degrade to H<sub>2</sub>O and CO<sub>2</sub>

## WELL WATER TREATMENT

### OXYCHLOR **Biocide**

- (1) Chlorine based 12%
- (2) Environment-friendly, non-toxic, non-harsh
- (3) Used at low concentrations: 0.5 to 6 ppm
- (4) Active through wide pH range
- (5) Contains diverse sequestering, chelating and anti-corrosion agents.

### AT 7070 **Food Grade Biocide Certified for Use in RO**

UNIQUE

- (1) AT-7070 comes in two separate chemicals, Enhance I (A) and Enhance II (B). Once mixed together at a ratio 1:1 for 5 minutes, they instantly generate 20'000 ppm of Chlorine Dioxide Stable for at least 100 hours in the dilution tank. AT-7070 is effective as low as 0.1 ppm.
- (2) Effective over a wide pH range between 4 & 10, in both hard and soft water.
- (3) Both temperature and alkalinity of the water do not influence the efficiency.
- (4) The smell, taste and color of drinking water improves
- (5) No residues in water and carcinogenic By-Products

“ YES WE CAN!  
Grabbing the Giants and taking care of your Desalination plant

Field Support Team

#### RO PREVENTION PROGRAM

EQUATION RO  
IWT 310  
ATO SAN  
MAJESTY AT  
7070  
OXYCHLOR

#### RO CLEANING IN PLACE - CIP

REACTION 2000  
FORMUL-A-CID  
BIOXY S  
P.S.A

## RO CLEANING IN PLACE - CIP

### REACTION 2000 **Non-Foaming Alkaline Cleaner for RO**

UNIQUE

- (1) Organic and inorganic cleaner
- (2) Non harsh, Non-Corrosive chlorine free
- (3) Safe on all type of surfaces
- (4) Made of proprietary chelating agents and Micropolymers
- (5) No Odor, Non-Fuming
- (6) Concentrated
- (7) Effective starting 0.5%

### FORMUL-A-CID **Non-Foaming Acidic Descaler for RO**

UNIQUE

- (1) Cleans Calcium and Rust Deposits, 20 times more effective than citric and glycolic acid and 4 times more effective than phosphoric acid when dissolving calcium carbonate.
- (2) Non harsh, non-fuming, safe to handle
- (3) Safe on all type of surfaces and Ideal for passivation
- (4) Effective starting 0.5%

### ATO SAN **Organic Biocide Certified for Use in RO**

PATENTED

- (1) DBNPA based 25%
- (2) Environment-friendly, non-toxic, non-harsh
- (3) Used at low concentrations: 0.5 to 6 ppm
- (4) Active through wide pH range
- (5) Interacts with cytoplasmic membrane proteins. Interferes with the transportation of nutrients across the membrane and works as a strong oxidizer.

### P.S.A **Non-Foaming Liquid Disinfectant for RO**

PATENTED

- (1) 20% Active peracids and peroxides
- (2) Non harsh, Non-Corrosive, non-fuming, safe to handle
- (3) Safe on all type of surfaces and Ideal for passivation
- (4) Environmentally-friendly with a Broad spectrum
- (5) Shelf life: 24 months (min.)
- (6) Effective starting 0.3%



REVERSE OSMOSIS

ARTICLES

## COOLING SYSTEMS PROGRAM

### COOL T KLIN **Antiscalant – Anticorrosion For Cooling Towers**



- (1) Concentrated blend of chemicals
- (2) Designed to prevent deposition and corrosion
- (3) Contains diverse anti-corrosion agents and sulfite (Oxygen Scavengers) to provide corrosion protection inside the loop.
- (4) Diverse Micropolymers, Sequestering and Chelating agents are included to disperse any scale forming materials that may enter into the cooling tower.
- (5) Antifoaming agents to regulate foam.
- (6) Complexing Agents that inhibits scale formation and deposition and acts as catalyst
- (7) Alkalinity control agent maintaining high pH levels
- (8) Easy to administer single product
- (9) Economical & Simple to test product

### IWT 500 **Antiscalant – anticorrosion for chillers**

- (1) Unique product easy to administer
- (2) Concentrated mixture of corrosion inhibitors designed specifically for
- (3) Corrosion control in both closed cold or hot systems.
- (4) Based on nitrite as well as other corrosion inhibitors to ensure a good protection of ferrous and non-ferrous metals.
- (5) Compatible with ethylene glycol and propylene glycol.
- (6) Easy to test it.

### At-7730 **Chiller pre-operational cleaner**

- (1) pH Neutral pre-operational cleaner for new piping, auxiliary equipment and heat exchangers
- (2) Removes dirt, oil and grease and will equally ensure a rapid and complete passivation of metal surfaces.
- (3) Combination of a corrosion inhibitor, detergents, emulsifiers, wetting agents and dispersants.
- (4) It is suitable for use in either hot or chilled water loops, although the cleaning itself should be carried out at 20 - 40°C.
- (5) Safe, easy-to-use liquid, Removes oil, grease and dirt
- (6) Contains no phosphate and Non-corrosive
- (7) Low dosage at 1%

### AT 5336 **Antiscalant – Anticorrosion For Chillers**

- (1) Molybdate Chemistry
- (2) Superior corrosion protection
- (3) Compatible with glycol solution
- (4) Concentrated mixture for corrosion control in both closed cold and hot systems.

## BIOLOGICAL CONTROL IN COOLING

### POLYQUAT **Organic Biocide**

- (1) Long Life Cycle, approx. one week
- (2) pH Neutral
- (3) Bio-Polyquat based
- (4) Environment-friendly, non-toxic, non-harsh
- (5) Used at low concentrations: 0.5 to 6 ppm
- (6) Active through wide pH range

### ATO SAN **Organic Biocide**

- (1) Short Life Cycle, approx. one day
- (2) DBNPA based
- (3) Environment-friendly, non-toxic, non-harsh
- (4) Used at low concentrations: 0.5 to 6 ppm
- (5) Active through wide pH range
- (6) Interacts with cytoplasmic membrane proteins. Interferes with the transportation of nutrients across the membrane and works as a strong oxidizer.

### P.S.A **Non-Foaming Liquid Disinfectant**

- (1) 20% Active peracids and peroxides
- (2) Non harsh, Non-Corrosive, non-fuming, safe to handle
- (3) Safe on all type of surfaces and Ideal for passivation
- (4) Environmentally-friendly with a Broad spectrum
- (5) Shelf life: 24 months (min.)
- (6) Effective starting 0.3%

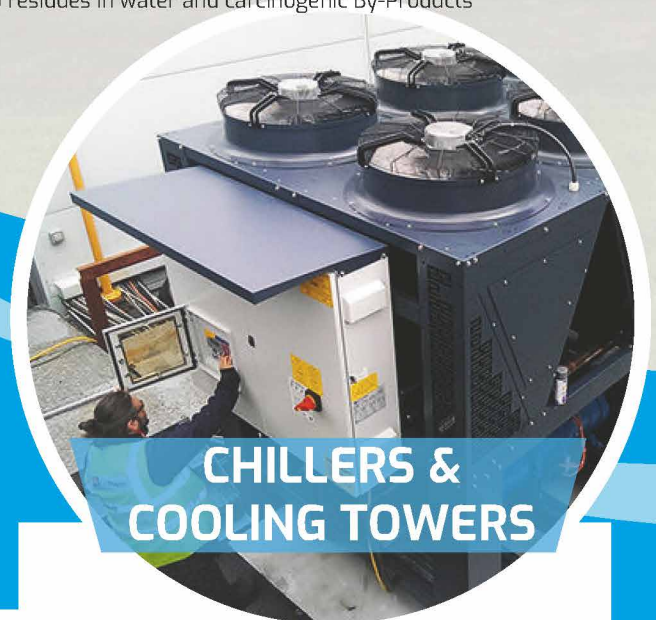
### AT 7070 **Food Grade Biocide**

- (1) AT-7070 comes in two separate chemicals, Enhance I (A) and Enhance II (B). Once mixed together at a ratio 1:1 for 5 minutes, they instantly generate 20'000 ppm of Chlorine Dioxide Stable for at least 100 hours in the dilution tank. AT-7070 is effective as low as 0.1 ppm.
- (2) Effective over a wide pH range between 4 & 10, in both hard and soft water.
- (3) Both temperature and alkalinity of the water do not influence the efficiency.
- (4) The smell, taste and color of drinking water improves
- (5) No residues in water and carcinogenic By-Products



## “ YES WE CAN! Chilling Your Giants

Field Support Team



## CHILLERS & COOLING TOWERS

### PREVENTION PROGRAM

COOL T KLIN  
IWT 500  
AT 7730  
AT 5336

### BIOLOGICAL PROGRAM

POLYQUAT  
ATO SAN  
ATO PSA  
AT 7070

## DRINKING WATER PIPELINES

### AT 5670 Corrosion inhibitor for drinking water pipeline

- (1) Blended zinc and Micropolymer product that is designed for use in once through and drinking applications, where control of corrosion must be maximized.
- (2) Serves to extend the life of mild steel, cast iron and copper piping.
- (3) Lead pick-up will be reduced due to the formation of a phosphate film on the metal surfaces.
- (4) Ideally suited to treat well waters that are used in agricultural applications, since none of the components are toxic or harmful.
- (5) Superior corrosion protection
- (6) Protects both ferrous and yellow metals
- (7) Easy to administer single product
- (8) Low toxicity product
- (9) Compatible with oxidizing biocides

### CORROSION FREE

#### Corrosion inhibitor for municipal water

- (1) Environment-friendly, non-flammable, non-toxic, non-carcinogenic
- (2) Concentrated blend of chemicals designed to prevent corrosion, scale and the formation of red water in industrial closed cooling and hot water systems.
- (3) Contains diverse anti-corrosion agents.



DRINKING WATER

WATER NETWORK

AT 5670  
CORROSION FREE

SLUDGE & EFFLUENT TREATMENT

BIOCULTURE  
NTP  
POLYMERS

## SLUDGE TREATMENT

### Bioculture

#### Drains, septic tanks and grease traps cleaner

- (1) Bio Culture unique- listed on the Canadian Domestic Substances List
- (2) Biodegrades organic matter in drains, sewers, grease traps, septic tanks, etc.
- (3) Removes drains malodor leaving a cherry scent in one week
- (4) Biotechnology product for organic removal
- (5) Environment friendly, pH neutral, non-flammable, non-toxic Non-carcinogenic.
- (6) Bacteria count:  $5.4 \times 10^7$  CFU/ml
- (7) Bacteria type: Blend of Bacillus spores
- (8) Enzyme Production: Lipase, Protease, Amylase and Cellulase.
- (9) Biodegrades the organic contents of garbage completely to CO<sub>2</sub> and H<sub>2</sub>O.
- (10) The presence of a complex of cellulases, hemicellulases, amylases and lipases provide the capacity to degrade extra cellular polymers (which cause foaming) and suppress the growth of the filamentous organisms by affecting the structure of the filaments
- (11) Removes oil deposits and prevent scum formation in holding tanks, sewers, drains and aeration basins.
- (12) Accelerates breakdown of unpleasant odors associated with handling oily wastes.

### NTP H<sub>2</sub>S Mercaptans and VFAs root cause solution

- (1) Is an environmentally benign, non-toxic and non-biocidal product for odor control.
- (2) Effectively and economically prevents the production of VFA's, H<sub>2</sub>S and mercaptans, thereby stopping odors from forming thus creating a pleasant living environment.
- (3) Is not a biocide and Is environmentally-friendly and not toxic
- (4) Prevents the initial formation of these malodours and does not only mask it.
- (5) Modifies the metabolism of anaerobic bacteria and does not kill these bacteria essential for anaerobic biodegradation, therefore BOD and COD are not affected.



SLUDGE CONTROL

“

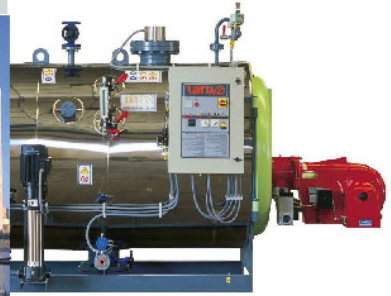
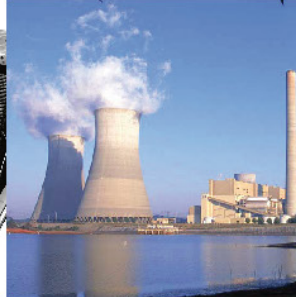
YES WE CAN!  
Drinking Safe & Ensuring  
Peace of Mind

Field Support Team



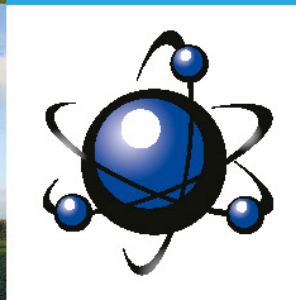
**CONTACT US  
TODAY FOR A  
FREE WATER  
ANALYSIS**

**COOLING  
TOWERS &  
CHILLERS**



**EFFLUENT  
AND SLUDGE  
TREATMENT**

**MEDIUM  
AND HIGH  
PRESSURE  
BOILERS**



**REVERSE  
OSMOSIS**



**Atomes FD. Inc.**

3485 Ashby, Ville Saint Laurent  
Quebec, Canada H4R 2K3  
Tel : +1 (514) 745 2597  
Fax : +1 (514) 745 5176  
[www.atomesbio.com](http://www.atomesbio.com)

**DRINKING  
WATER**



**DIVISION OF**

**WATER & WASTEWATER TREATMENT**