

The Perfect Formulations

OPTI-INSTANT-TECHNOLOGY

(using OPTI-TRASER™)

Part II

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January 2014

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Part III



OPTI-TRASERTM for Continuous Control

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I: Watch® Water Technology

Background...

The former company CWG, organized in the year 1980 by Deepak Chopra, had sold Dosing chemicals to industrial plants for Boiler-feed-water, while the later 1985 sold Structural Pressure Vessels, Fleck Valves, Hydraunautics membranes, Ion exchanges Resins to water-treatment companies used to make systems.

CHOPRA WATER GROUP: Unfortunately for the company, the whole sale business was not effective. Mr. Chopra found that his employees opened this component business everywhere and that components were sold by 50 different companies to the same customers. He did, however, realized that Water Treatment Dosing Business is his original base as 1980's. Soon afterwards, Watch Water Technology and Chemicals began INSTANT Dosing Softeners.

Click here for Detail History of Watch Water



II: Products Designed for

WATER TREATMENT (ALL GREEN)

- 1. Drinking Water Treatment
- 2. Heating Water Treatment
- 3. Boiler Water Treatment
- 4. Heat Exchangers Water Treatment
- 5. Cooling Water Treatment
- 6. Membrane Treatment
- 7. Raw water/potable water preparation

Our **OPTI** - Innovative Water Treatment Dosing Chemicals help customers reduce costs, increase productivity and meet environmental requirements.



III: The Chemistry



of WATCH OPTI-INSTANT-ISOFT

OPTI-TRASERTM is Watch Water's use of tracer dye as chemical markers in water treatment products. I-SOFT products that contain **OPTI-TRASERTM** dyes are blended into the exact ratio so that they can be measured to monitor and control (see TOM in Part I) products' concentration. The **OPTI-TRASERTM** is measured in ppb (μ g/L) resolution and is determined the proportionate control range required for each product.

For each product of I-SOFT applications it has a different **OPTI- TRASERTM** dye. Each dye is chosen specifically to provide a stable tracer under typical conditions found in for example:

Drinking Water, Hot Water (Heating systems) Boilers, Heat Exchangers, Cooling Towers and Membrane treatment.



III: The Chemistry of WATCH OPTI-INSTANT-ISOFT

Watch® has the ability to custom the perfect formulations with **OPTI-TRASER™** containing leading edge active components used in any water treatment Dosing Chemicals and formulations.

"NALCO Patens for TRASAR"

Watch® concept of using **OPTI-TRASER™** to monitor and control the concentration of Dosing products and absolute identical.

(The original Nalco patent has expired several years before!)



III: The Chemistry

of WATCH OPTI-INSTANT-ISOFT

Using **OPTI-TRASER™** in conjunction with **I-SOFT** and with the proper equipments is a very effective method for controlling Water Treatment Systems. **OPTI-TRASER™** products use unique Tracers to monitor the chemical treatment utilizing simple **TOM** (*Traser-O-Meter*; <u>See more on TOM Part</u> 1) Technology. **I-TOM** (Inline Traser-O-Meter) and **Hi-TOM** (Handheld intelligent Traser-O-Meter) systems do not require special reagents or complicated test procedures for the measurement. Online analyzers as well as Watch-DOS dosing units are also available for reliability and simplicity.

DOSING – MONITORING – CONTROL with

OPTI-TRASER™ Water Treatment Chemistry

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IV: OPTI - INSTANT - ISOFT

Water Softening (the complete picture)

Hard Water contains salts of

Cations

Ca²⁺ + HCO₃
Mg²⁺ Cl
Fe²⁺ + SiO₂

PO₄

Non-bicarbonate Water Hardness

ONLY Treated by I-SOFT

Other Salts Anions hardness is called **Permanent Water Hardness** and ONLY **I-SOFT** can take care of this **Permanent Hardness**

Water hardness caused by Ca(HCO₃)₂ is called **Temporary Water Hardness** which converts to insoluble CaCO₃ with SP3 Treatment

bicarbonate Water Hardness Directly Treated by SP3

Correct FILTERSORB SP3 for hard water scale prevention based on Nucleation Assisted Crystallization (NAC) is a much cleaner way to prevent scale and to remove old scale deposits. FILTERSORB SP3 is environment friendly and needs no regeneration.



IV: OPTI - INSTANT - ISOFT

Non-carbonate Scale Prevention

and Corrosion Control

Dosing is to protect Scale and Corrosion caused by PERMANENT Water Hardness. I-SOFT is safe, reliable in performance which is essential for water treatment processes and also to ensure Health protection for operators.

Watch® extensive product portfolio of surfactant, water soluble Instant Chemicals, Oxygen Scavengers, Biocides, Optical-Tracer products and corrosion inhibitors helps our customers to dose successfully with the sustainable formulations.

Boilers and **Cooling Towers** processing needs excellent hygiene in Food and Beverage processing and ensuring absolute safety for Boilers and Cooling Tower operators. The industry has to warn all consumers from **Chemicals of Concern**.



V: Chemicals of Concern



Brominated, Chlorinated and Phosphate

contaning Dosing Products

Many Dosing Chemicals are **organohalogens** (compounds in which carbon is bonded to bromine or chlorine). All 22 Chemicals globally banned as Persistent Organic Pollutants under Stockholm Convention.

Why are they A Concern?

Organohalogen Dosing Chemicals are **toxic**, **lipophilic** (fatloving) and **resistant to degeneration**. All of these leading to their persistence and bioaccumulation in our bodies and the Environment.

Click for the List of Concerned Chemicals.



VI: The Future



Know the Technology

Command the Future

First of all there is a lot of money to be saved as water prices increasingly reflect the true cost of water.

Companies will spend more on

- Good Technologies
- Reduced Chemical use

As pollution worsens they need to pay more.

Companies may not be able to use water because of all nonbiodegradable chemicals in it.

This list goes on and on by proving again, that safe, clean and accessible water is the building block for growth.



VII: OPTI – INSTANT List

Product Name			Function
form	main	addition	T dilotion
0	ISOFT	-	 Municipal, Residential, Industrial, Commercial Water Application Scale & Corrosion inhibitor for all pipes and equipments.
P	ISOFT	DW	 Drinking Water applications, Food & beverage Industries Scale & Corrosion inhibitor for all pipes.
Ī	ISOFT	ON	 Scale & Corrosion inhibitor with <u>Non-volatile Oxygen scavengers</u>. FDA approved multi-purpose Boiler Water Treatment.
_	ISOFT	OV	 Scale & Corrosion inhibitor with <u>Volatile Oxygen scavengers</u>. Multi-purpose Boiler (Steam Boilers) Water Treatment.
N	ISOFT	NB	 Cooling Water, Heat exchangers, Air conditioners Multi-functional Scale and Corrosion inhibitor with Dispersant and non-oxidizing biocide for high silica and sulphate content in feed water.
S T	ISOFT	ОВ	 Cooling Water, Heat exchangers, Air conditioners Most effective non-hazardous oxidizing biocide in the market. High Cycle chemistry!
A	ISOFT	RO	Guaranteed one dosage and all prevention of scaling & fouling, such as silica, sulphate including barium and strontium scales.
T	ISOFT	ROB	Prevention of silica, sulphate, barium and strontium scaling and Bio-fouling.

VIII: Conclusion



Our objective is

- ✓ Wasting less, Polluting less
- ✓ And reusing more
- √This is only by helping
- √ Changing today's dosing
- √ Here with OPTI-DOS (Dosing system for OPTI-

TRASER™ products)

Only by changing today's approach to future water management and water treatment green technologies can ensure a prosperous future.

Thanks for reading!