

Machinery Chemicals

Machinery Chemicals offer an extensive range of advanced; scientifically formulated water treatment specialty chemicals and water additives manufactured to the highest international quality and environmental standards for guaranteed performance.

Machinery Chemical's high performance water treatment specialty chemical and additives are used successfully around the world in many of the most demanding Refineries, petrochemical plants, manufacturing facilities, food plants, large buildings, chemical processing plants, steel mills, and electric utilities, municipal and industrial process environments where they help to improve productivity optimize performance and reduce equipment life-cycle costs. The cooling system design, effectiveness and efficiency depend on the type of process being cooled, the characteristics of the water and their source, System operating conditions and environmental influence.

Machinery Chemicals is Solution Provider for Industrial Water Treatment Chemicals . Monitoring and maintaining control of corrosion, Scaling, deposition, microbial growth, and system operation is essential to provide the optimum Total Cost of Operation (TCO) i.e. on conservation of Water and Energy .Our treatment program is Alkaline Zinc — stabilized Orthophosphate Program - that optimizes the consumption of Chemicals, Conserve water and Energy.Our treatment program is able to reduce TCO using our unique software and State of Art R&D facilities. Our program includes 2 steps

- 1. Monitoring
- 2. Develop a total treatment program

1st Step-Monitoring

Monitoring is an integral part of any industrial water treatment program. It is used to determine treatment effectiveness and to establish the optimum level of treatment that is most cost effective, with respect to energy, water and chemical usage. The purpose of corrosion monitoring and Bio control are to assess or predict corrosion behavior and microbial growth in the system. Basically, there are two objectives to monitoring:

- 1. To obtain information on the condition of the operational equipment
- 2. To relate this information to the operating variables (i.e. pH, temperature, water quality, Biological Mass, chemical treatment).

Meeting these objectives will provide the following results:

- Increased life of the plant
- Improved quality of the plant's product
- Maintenance prediction needs at plant
- Reduced plant's operating cost



2nd Step-To Develop a Total Treatment Program

The steps to optimize TCO of a cooling system are:

- 1. Complete cooling system survey to understand the system dynamics, operating variability, and system stresses
- 2. Pretreatment of any new or recently cleaned system with special chemical corrosion inhibitors
- 3. Selection of treatment program to select the best program based upon system operating conditions and known system stresses.
- 4. Implementation of performance monitoring program to evaluate heat transfer efficiency, corrosion control, deposition control, and microbial control
- 5. Use of analytical testing, both routine on-site testing and periodic lab analyses, to confirm optimum operation
- 6. Use of on line Monitoring sensors to control system parameters and treatment program application to optimize system stresses, minimize system discharge, and provide the lowest TCO

+971 4 4503 574

+971 4 434 3480

sales@machinerygroupme.com www.machinerygroupme.com



Our Specialty Chemical Products

COOLING WATER TREATMENT CHEMICALS	BOILER WATER TREATMENT CHEMICALS
 Corrosion inhibitors Dispersants Antiscalant Oxidizing Biocides Non- Oxidizing Biocides Bio dispersants Pre cleaning and Passivation Chemicals Descaling chemicals 	 pH Booster Corrosion inhibitor / Sludge Conditioner Oxygen Scavenger Antiscalant Descaling chemicals
RO WATER TREATMENT CHEMICALS (INDUSTRIAL)	CHILLED WATER TREATMENT CHEMICALS
 Antiscalant Anti foulant Biocides Membrane Cleaner 	 Corrosion inhibitor Biocides Bio dispersants Antiscalant Descaling chemicals
WASTE WATER TREATMENT CHEMICALS	CHEMICALS FOR SUGAR INDUSTRIES
 Coagulants Flocculants pH Modifier Defoamer DE colorant Deodorizer Polyelectrolyte Oxidizing Biocide 	 Antiscalants Mill Sanitation Chemicals Flocculants Viscosity Reducer Defoamer TRO- 35%, 50%, 70% De Scaling Chemical
LEATHER CHEMICALS	TEXTILE AUXILIARIES
PreservativesSynthetic Tanning agentsFat Liquor	Sizing AgentWetting and Scouring agentDye fixing agent
OIL FILED CHEMICALS	GENERAL CHEMICALS
 Aldehyde based Biocide Amine based Biocide Non Amine and Aldehyde based Biocide Water Injection Corrosion inhibitor Water Injection Defoamer 	 Radiator Coolants Rust Preventor Rust Remover PVC Pipe - Adhesive - Solvent Cement Truck Wash Liquid . Metal Working fluid (Cutting oil) Preservatives