

## ZI-CHEM 24H0

### Cooling Water Microbiological Control

#### HIGHLIGHTS

ZI-CHEM 24H0 is a highly effective micro-biocide for controlling bacteria in many industrial applications. This includes air washers, industrial scrubbing systems, recirculating cooling, heat transfer systems, process water, food processing applications including pasteurizers and bottle warmers, sugar mill processes, water based coatings, pulp and paper process, lubricants and metal working fluids, reverse osmosis membranes and wastewater including sludge holding tanks.

The active toxicant is a combination BNPD (2- bromo-2-nitropropane-1, 3-diol) and Isothiazoline (5-chloro-2-methyl-4 isothiazolin- 3-one and 0.68% 2-methyl-4-isothiazolone-3- one). It is a very potent formulation with broad spectrum antimicrobial activity, including aerobic bacteria, anaerobic bacteria, algae, yeast, and fungi. This combination is also minimize the risk of the development of resistance microbial population in the water systems.

Controlling microbiological growth in industrial water systems is essential to prevent biofouling. In cooling systems, biofouling of heat exchange equipment and tower fill reduces heat transfer efficiency and can force unscheduled shutdowns and extended turnarounds leading to lost production. Biofouling can also damage equipment through microbiologically influenced corrosion (MIC). As a result of these effects, biofouling must be prevented in order for operating units to achieve profitability goals.

ZI-CHEM 24H0 is compatible with oxidizing biocide like chlorine and bromine. It even shows increased efficacy in the presence of these oxidizing agents..

ZI-CHEM 24H0 is water-based product to minimize impact on the environment.

#### PRIMARY APPLICATIONS

The desired dose rate of ZI-CHEM 24H0 will depend on the specific application and a number of factors including microbiological contamination, degree of fouling, volume and makeup capacity of the system being treated and associated retention time. The actual dose will depend on the conditions and the results required. Specific recommendations will be provided by your ZI-TECHASIA technical representative.

#### FEEDING & CONTROL

The recommended addition method for ZI-CHEM 24H0 is with a chemical injection pump that can inject the chemical to the start of a water circuit. The most effective addition point is outside the main pump intake screens. The chemical metering pump can be controlled by a programmable timer to suit the days and times established for your system.

ZI-CHEM 24H0 is compatible with most plastics, such PVC, HDPE, polypropylene (PP), and Teflon (PTFE).

#### HANDLING & SAFETY

ZI-TECHASIA maintains a database of material safety data sheets (MSDS) on all our products. These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel.

#### THE BENEFITS

- Improved heat transfer capacity
- Extended equipment life
- Prevent water borne life taking diseases such as legionella disease
- Avoid unscheduled downtime
- FDA approved (CFR 176.170, 180, and 300)

#### TYPICAL PROPERTIES

- Appearance: Clear colorless to yellow liquid
- SG: 1.0 – 1.2
- pH (neat) 2.5 – 4.0
- Freeze point: -4°C
- Flash point: > 93C

#### COMMON APPLICATIONS

- Automotive industries
- Packaging facilities
- Power generating facility
- Pulp & Paper processing
- Petrochemical plant
- Geothermal plant

#### PACKAGING

- 25kg pails
- 200kg drums
- 1,000kg IBC's or in bulk

