

FEATURES

MARC Cooling Tower Treatment is a specially formulated concentrate to control scale and corrosion in open recirculating cooling towers using either hard or soft makeup water. Its multifunctional characteristics assure protection over a broad range of system conditions and water types, including those high in calcium and pH.

MARC Cooling Tower Treatment is a combination of organic and inorganic compounds, polymers, corrosion inhibitors, anti-foulants, dispersants, alkalis and other proprietary ingredients. It provides protection against scale formation caused by hardness ions in the makeup water and fouling due to suspended solids which interfere with proper tower operation and greatly reduce efficiencies. It effectively disperses particulate matter and suspended iron oxide to prevent solids from settling. It inhibits the formation of calcium carbonate and other minerals as well as slt. The superior corrosion inhibitors in this product protect a variety of both ferrous and nonferrous metals by creating a barrier against corrosive agents which can severely damage cooling towers and reduce their operational life span.

By maintaining the proper level of **MARC Cooling Tower Treatment** in the system, not only are surfaces protected from new deposits, existing scale is gradually removed without the need for potentially harmful acid treatments. Treatment levels in the cooling system are easily monitored and controlled.

MARC Cooling Tower Treatment provides an environmental advantage by containing no chromates or other heavy metals, and only minimal amounts of phosphates, thus avoiding pollution problems in discharge. It is compatible with other commonly used treatments such as oxidizing and non-oxidizing microbicides and biodispersants.

HMSI/NFPA Ratings: Health-2, Flammability-0, Reactivity-0. **KEEP OUT OF REACH OF CHILDREN!**

MADE IN USA.

Net Contents: 5 Gallons



COOLING TOWER TREATMENT

SCALE AND CORROSION CONTROL FOR OPEN RECIRCULATING COOLING TOWER SYSTEMS

- Concentrated
- Inhibits Scaling
- Inhibits Corrosion
- Removes Deposits
- Reduces Fouling
- Increases Tower Efficiency
- Effective in both Hard and Soft Makeup Water
- Contains No Heavy Metals

For Industrial and Institutional Use Only!



An Exclusive Formula of

M-330

MID-AMERICAN RESEARCH CHEMICAL CORP.
P. O. BOX 927 · COLUMBUS, NE 68602-0927 · 800-228-8508

DIRECTIONS FOR USE

Exact treatment rates will vary with the specific system and water conditions involved. The general recommendation is to add 1 quart (32 fluid ounces, 2.3 pounds) to 2 quarts (64 fluid ounces, 4.6 pounds) of **MARC Cooling Tower Treatment** per 1,000 gallons of water in the system or added as makeup water. (This is a treatment rate of about 300 to 600 ppm.) Use the higher rate initially, and in systems with more severe scaling or corrosion problems. Product can be added either as a slug dose or, preferably, metered into the makeup water. Addition should be made at a point in the tower where it will be thoroughly mixed and evenly distributed in the system. For best results, extremely fouled or scaled systems may need to be cleaned mechanically and/or with a descaler such as **MARC Cooling Tower Scale Remover (M-331)** before beginning treatment.

The level of treatment may be monitored by measuring orthophosphate or phosphonate. Maintain an orthophosphate level of 3 to 6 ppm or a phosphonate level of 6 to 12 ppm.

For proper operation, the treatment of a cooling tower must be accompanied by a regular bleedoff program. Bleedoff removes suspended solids and dissolved minerals and flushes out precipitated sludge. Careful bleedoff is essential for economical treatment as well as preventing scaling, corrosion and foaming. The exact amount of bleedoff required depends on factors such as system demand, weather and temperature. Although individual situations may vary, it is generally advisable to adjust the bleedoff rate to achieve three cycles of concentration.

For complete cooling tower protection, use this product in conjunction with **MARC CT Microbicide (M-220)** to control algae, bacteria and other biological growth.

DANGER: Contains potassium hydroxide and sodium tolyltriazole. Causes severe skin burns and serious eye damage. Harmful if swallowed. Causes damage to gastrointestinal system if swallowed and to respiratory system if mist is inhaled. Store only in original container. Do not get in eyes, on skin or on clothing. Wear eye protection and protective gloves. Do not breathe mist, vapors or spray. Do not ingest. Do not eat, drink or smoke when using this product. Use only in a well-ventilated area. Wash thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Center or physician. If on skin or hair: Remove immediately all contaminated clothing. Rinse skin and hair with water. Wash contaminated clothing before reuse. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Center or physician. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a Poison Center or physician. If exposed: Call a Poison Center or physician. Absorb spillage to prevent material damage. Store locked up in original container. Dispose of in accordance with federal, state and local regulations. RM0615