

## information bulletin

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### CLEANING MEDIA IN EVAPORATIVE COOLERS

Cambridge Air Solutions manufactures evaporating coolers. Munters CELdek media is utilized in many of these coolers.

Proper care of the media is a key element for maintaining safe, effective and efficient operation of the evaporative cooler.

Munters has published Engineering Bulletin MB-SCP-205 **Controlling Scale and Dirt in Evaporative Pads**.

<http://coolingmedia.com/wp-content/uploads/2015/10/Scale-and-Dirt-Control.pdf>

This bulletin covers topics including:

- Proper water distribution
- On-off cycling of the pads
- Common scale forming minerals
- A quick reference chart showing stable water with respect to alkalinity (as CaCO<sub>3</sub>) and calcium hardness (as CaCO<sub>3</sub>)
- Cleaning the sump and distribution system

In addition, important formulae are included for:

- Evaporative cooling
- Water evaporative rate and bleed-off
- Air flow

After cleaning and flushing the evaporative cooling system, according to Air Solutions Bulletin MB-SCP-205 *Controlling Scale and Dirt in Evaporative Pads*, the media can be treated with certain algae control chemicals. Munters has published Air Solutions Bulletin MB-ACC-205 **Common Algae Treatment Chemicals**.

<http://coolingmedia.com/wp-content/uploads/2015/10/Algae-Prevention.pdf>

This bulletin covers topics including the three most common chemical groups:

- Quaternary amines
- Oxidizing biocides
- Copper compounds

Combinations of these chemicals are found in many swimming pool chemicals and commercial disinfectants. When used continuously, or in too high of concentrations, these products can destroy wood, cellulose and metals.

The methodology for calculating disinfectant dosages is shown, along with a table with maximum recommended dosages.

Another bulletin published by Munters is **Approved Chemicals for Cooling Pads**.

[https://www.munters.com/globalassets/inriver/resources/agh\\_manual\\_chemical-care.pdf](https://www.munters.com/globalassets/inriver/resources/agh_manual_chemical-care.pdf)

This bulletin includes:

- Approved algae control chemicals
  - Physan 20, as manufactured by Maril Products, Inc.
  - Triathlon, as manufactured by OHP, Inc.
  - Green-Shield, as manufactured by Whitmire Research Laboratories
  
- Cleaners and sanitizers
  - Aqua Max XL, as manufactured by Neogen Corporation
  - Cool -N- Klean, as manufactured by Ivesco, LLC
  - Virocid or CID-20, as manufactured by BVS/CIDLines USA

Munters has also published Air Solutions Bulletin MB-ACP-205 ***Preventing Algae in Evaporative Cooling Pads.***

<http://coolingmedia.com/wp-content/uploads/2015/10/Algae-Prevention.pdf>

This bulletin covers topics including:

- Shade the pad and sump
- Allow the pads to dry completely once every 24 hours
- Minimize nutrient contamination

Cambridge recommends that these engineering bulletins be considered as a basis for the proper maintenance of evaporative cooling pads.