

# **Technical Data Sheet**

# **CS-236 Acidic Cleaner**

## **GENERAL DESCRIPTION:**

**CS-236** is a phosphoric acid blended cleaner used for removal of salts of evaporation on cooling towers fill and scaling in cooling tower and boiler systems. CS-236 is also effective in helping to loosen prior corrosion products in closed loop systems.

### **PHYSICAL PROPERTIES:**

Appearance (concentrate)	Colorless Clear Liquid
Solubility	Complete in Water
Specific gravity	•
Density	10.55 lbs/gal

#### **FEEDING:**

CS-236 is used for off-line cleaning only.

For cooling tower fill salts of evaporation removal: Shut off and lock out the tower pumps and fans. Spray a small amount of CS-236 neat on the deposits using a poly tank sprayer (DO NOT BREATH VAPORS - see safety section below). CS-236 will react with the deposit and foam/bubble while working. Rinse completely with a strong stream of fresh water (NOT FROM A PRESSURE WASHER) once the reaction has stopped (approximately 10 minutes). Repeat as necessary. Avoid spraying on galvanized surfaces since CS-236 will remove the protective zinc coating if provided significant contact time. Rinse any contact with the galvanizing immediately.

For removal of scale for evaporative condenser tubes, distribution decks and other surfaces: Note: This process will remove some of the galvanizing from surfaces, so only proceed if scaling is sever. Shut off and lock out the tower pumps and fans. Drain the system and refill with fresh water. Add approximately 1 gallon of CS-236 per every 300 gallons of system water. Turn on the circulation pumps while keeping the fans locked out. Run the system for 12-24 hours checking periodically for foaming and checking pH. The pH will initially be low 2-3 and will increase towards 6-7 as it reacts with the deposits. Add defoamer if foaming becomes a problem. Lock out the pump. Check pH and neutralize with Potassium Hydroxide (KOH) solution as necessary for discharge in accordance with local sewer requirements. Drain the system. Check deposit removal progress. Any remaining deposits should be soft. If not, repeat CS-236 application. Once remaining deposits are soft, use a pressure washer to remove any remaining deposits (do not use a pressure washer on plastic components such as fill). Clean system strainers and wash out the system. Refill, treat with scale and corrosion inhibitors and return to service. Operate at lower cycles (pH 7.8-8.0) for several weeks to passivate the surface.

For closed loop and boiler cleaning, please contact BWI Solutions, Inc.

#### **SAFETY AND HANDLING:**

Please refer to Material Safety Data Sheet for further safety information. Wear protective gloves, apron and goggles when handling. If applied with a sprayer wear a full body protective suit, rubber boot and gloves, full face mask and mist mask.

#### **PACKAGING:**

**CS-236** is available primarily in 30 and 55-gallon natural poly drums. Other sizes are available upon request. F.O.B. shipping point.

### Mid-West Solutions, Inc.

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Revision Date: 8/1/2005

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**STORAGE INSTRUCTIONS:** Store at room temperature - keep from freezing.