

## OPTISHIELD® II Plus DIRECTIONS FOR USE

OPTISHIELD® II Plus is a liquid water additive formulated to provide corrosion protection for a broad range of materials in “closed circuit” re-circulating systems. **OPTISHIELD® II Plus is not recommended for use with systems containing aluminum.** OPTISHIELD® II Plus is suitable for use in most “new” and “existing systems” when used in accordance with directions. However when used with existing systems which may contain excess scale, oxidation, and sediment, it may be advisable to first flush the system with a mild cleaning agent. Contact your equipment manufacturer and/or OPTI TEMP for recommendations on appropriate cleaners.

**Caution:** Some cleaners and/or additives can be harmful to certain system components. Check with the equipment manufacturer for compatibility with the system before using OPTISHIELD® II Plus or any other additives. Use of unapproved products may void your equipment warranty.

**Filtration:** It is strongly recommended that particle filtration be installed on all re-circulating systems, particularly for those systems where corrosion, scale, and other containments may already exist. Use of OPTISHIELD® II Plus will tend to loosen and free containments over time. **TO PROTECT PUMPS, SEALS, AND OTHER COMPONENTS INSTALL FILTERS ON THE RETURN SIDE OF THE SYSTEM!** Please note that filter type and minimum recommended particle sizes may vary by application. Contact your equipment manufacturer or OPTI TEMP engineers for more information and recommendations.

**Caution: READ Instructions for use and Material Safety Data Sheet thoroughly before handling OPTISHIELD®.**

### Directions for New Systems “First Time Use”

Note: If system is an existing system with a known corrosion problem, the system should first be treated and flushed with a mild cleanser. Contact OPTI TEMP for more details.

1. Flush cooling circuit with distilled water.
2. Calculate system capacity/volume in gallons. Fill cooling system with a 20% solution of OPTISHIELD® II Plus and distilled water. (Example: 1 gallon of OPTISHIELD® II Plus to 4 gallons of water for first “coating cycle”)
3. Circulate this solution for about 30 minutes.
4. Drain fluid\*. **DO NOT RINSE!**
5. Fill cooling system with a 10% solution of OPTISHIELD® II Plus and distilled water. (Example: 1 gallon of OPTISHIELD® II Plus to 9 gallons of water)
6. Change fluid as directed by OPTI TEMP, INC.

### Directions “After First Time Use”

1. Drain used fluid from system\*.
2. Fill cooling system with a 10% solution of OPTISHIELD® II Plus and distilled water. (Example: 1 gallon of OPTISHIELD® II Plus to 9 gallons of water)
3. The system is ready for use.

**\*Dispose of according to local, state, and federal regulations. Store OPTISHIELD® II Plus at room temperature, above 60°F. Keep container closed when not in use.**

Rev.2/01/2011

### **WHEN DO I CHANGE THE OPTISHIELD® II PLUS SOLUTION?**

OPTI TEMP, INC. recommends changing the OPTISHIELD® II PLUS solution every **6 MONTHS** for most systems. **Failing to change the solution when prescribed can lead to serious corrosion problems.** Please follow all directions.

The time between successive changes generally depends on three main factors:

1. The types of dissimilar metals in the system.
2. The temperatures encountered by the solution.
3. The number of hours per day the fluid is circulated at the above temperatures.

OPTI TEMP, INC. can recommend a schedule for your system.

### **HOW AND WHEN DO I CHECK THE OPTISHIELD® II PLUS SOLUTION?**

During the first 6-8 weeks it is best to check the system weekly, if not more often, for CLARITY. This can be done by taking a small sample of the fluid and holding it up to the light to make sure there are no precipitates (solids) in the solution. If any precipitates (or a cloudy solution) are found, the solution should be drained following the Directions for Use of OPTISHIELD® II PLUS. New solution should be used.

The solution should also be tested for pH level. The pH should not fall below pH=7. If the pH=7 or less, drain the system and follow the "Directions For Use of OPTISHIELD® II Plus".

If your solution is clear after the specified time given to you by OPTI TEMP INC. for changing the fluid, we recommend changing the fluid anyway. The clarity test is just a guideline for solutions which need to be changed before the specified period.

### **CONDUCTIVITY REQUIREMENTS**

The OPTISHIELD® II PLUS solution is a special solution engineered for low electrical conductivity systems. Regular OPTISHIELD® is the optimum solution for systems that do not have the low conductivity requirements. Therefore, the OPTISHIELD® II PLUS solution should be changed often to protect the system.