

ZI-CHEM 2480

Cooling Water Sulfur Dispersant

HIGHLIGHTS

ZI-CHEM 2480 is a specialized dispersant formulated to control and prevent the agglomeration of sulfur and other deposits in cooling towers used especially in geothermal power applications. Geothermal fluids often contain dissolved minerals, including sulfur compounds, which can precipitate out of solution due to aeration and changes in temperature in the cooling process. These precipitated solids can tend to agglomerate on the surfaces of critical equipment in the cooling process, reducing its performance and/or efficiency.

ZI-CHEM 2480 is designed to mobilize these solids and prevent the agglomeration of sulfur compounds by keeping them in suspension and preventing them from adhering to heat exchange surfaces. This has a direct impact to plant performance, including condenser vacuum and power generation output. It can also reduce the frequency of the need to perform offline cleaning procedures.

ZI-CHEM 2480 is also an effective biodispersant in aqueous systems. This is particularly effective when used in conjunction with a micro biocide to disperse and mobilize existing biofilm and control future microbiological growth. It can be used to reduce fouling in critical areas of water using plants including cooling water systems, or in heated water systems up to (150°C).

TYPICAL PROPERTIES

- Appearance: Clear yellow liquid
- SG: 1.0 – 1.2
- pH (neat) 5.0 – 8.0
- Freeze point: 0°C
- Flash point: None

PRIMARY APPLICATIONS

The desired dose rate of ZI-CHEM 2480 will depend on the degree of fouling. Light fouling can be easily controlled at 5 – 25 mg/L, while in extreme circumstances, up to 50mg/L may be required. Short term off-line cleaning can be facilitated at dose rates up to 5,000 mg/L. Actual dose will depend on the conditions and the results required.

FEEDING & CONTROL

The recommended addition method for ZI-CHEM 2480 is with a chemical injection pump that can inject the chemical to the start of a water circuit. The most effective addition point is to the cooling system basin in an area of good mixing. The chemical metering pump can be controlled by a programmable timer to suit the days and times established for your system.

On some occasions, a high addition rate can cause foaming. Chemical foam control additives can be used to control this if this is found to be problematic.

PRODUCT REGISTRATION

ZI-CHEM 2480 is registered to the NSF Nonfood Compounds Registration Program under Category Code G5 (Cooling and retort water treatment products – all food processing areas).

THE BENEFITS

- Improved cooling performance and operational efficiency.
- Increased power generation by maintaining optimum heat transfer.
- Reduced requirement for downtime for offline cleaning.
- Avoid unscheduled down time.

COMMON APPLICATIONS

- Geothermal utility cooling
- Power generation facility
- Petrochemical Plant

PACKAGING

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

HANDLING & SAFETY

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

