

# RPAM 700

CORROSION INHIBITOR



## CUSTOMER: INTERNATIONAL INDUSTRIAL MANUFACTURER

### PRODUCT

**RPAM 700** is a 55% solids in-process aqueous amine carboxylate corrosion inhibitor primarily intended for use as a dilutable fluid to protect, flush, and clean the cooling system/engine blocks during testing of internal combustion engines. RPAM 700 is engineered to be fully compatible with ferrous alloys such as cast iron, and steel, “white metals” (aluminum, zinc, magnesium) and “yellow metals” (copper, brass, and bronze) including all alloys of those metals. RPAM 700 contains a select blend of volatile corrosion inhibitor (VCI) components such that when the liquid phase wets the substrate and is drained, the thin film emits these components to further protect the headspace against corrosion allowing engines to be shipped without coolant. Wetting agents have been incorporated into RPAM 700 to allow for a more even film coverage especially for complex surfaces and geometries.

### PROCESS AND EQUIPMENT

Industry/Market	Industrial
Product Type	Corrosion Inhibitor/Hot Test Fluid
Product Number	52018A0000
Machinery Involved	Engine Test Re-Circulating Cooling System
Description of Environment	The product is used to cool the engines on test before they are finished and dispatched.
Volume Used	20,000 liters annually
Date of Use	2014 to present
Documented Cost Savings	£50,000

#### ▷ DESCRIPTION OF PROBLEM

The previous fluid was an oil based corrosion inhibitor that contained no volatile corrosion component. The product could not be disposed of via the on site water treatment facility, hence there were large waste disposal costs associated with the process (this was £35,000). As the engines are drained after test and stored/shipped **## Savings over antifreeze ##** worldwide residual corrosion protection is mandatory; in the previous process there were instances of corrosion to the internal cooling system of the engines, causing the customer large rectification costs.

#### ▷ SOLUTION

The RPAM 700 was be used at a much leaner concentration than the previous product, showing a large reduction in cost. Due to the characteristics of the RPAM 700 the corrosion protection, after the engines are tested and drained for shipment, has been massively improved. The process improvement has led to a large cost saving and greatly improved quality for the customer.

#### ▷ CUSTOMER TESTIMONIAL

The cost savings logged and the improved process have made this an excellent product/process change.