

### Guardmax PCA

#### SCALE INHIBITOR AND DISPERSANT

##### DESCRIPTION

PCA dispersant is a phosphinocarboxylic acid polymer which has features of both phosphonates and polycarboxylates. It is effective in controlling mineral scales and other deposits in many different applications, such as cooling water, boiler water, pulp and paper mills, and gas scrubbers. .

##### ADVANTAGES

- \*Excellent scale control agent for calcium carbonate, calcium and barium sulfates
- \*Effectively disperses iron oxides and calcium phosphate
- \*Dispersing effect to disperse the negative charge on the sludge particles, such as silt & mud and iron oxide etc,.
- \*Compatible with other commonly used water treatment chemicals.
- \*Improves corrosion control in alkaline systems by maintaining clean surfaces.
- \*Resistant to chlorine and compatible with most microbiological control agents.
- \*Excellent thermal and hydrolytic stability(>250°C)

##### SUGGESTED APPLICATIONS

###### Cooling Water Systems :

The good scale control properties of PCA make it particularly effective for controlling calcium carbonate and calcium phosphate, iron and silt deposits. PCA is effective in alkaline systems and under severe service conditions. It can be used to control corrosion in combination with zinc or polyphosphate, and then may eliminate the need for both phosphonates and acrylates in many formulations.

###### Boiler Water Systems :

PCA is a good dispersant and transport agent for iron oxide, calcium carbonate and calcium phosphate, and keep them in suspension until they are removed by the blowdown. The effectiveness

of the PCA together with excellent thermal stability makes it an ideal boiler water additive. It is also compatible with commonly used dispersant, volatile and filming amines and oxygen scavengers at normal levels of use.

##### Pulp & Paper Mills :

PCA can be used to control the deposition of calcium carbonate, calcium and barium sulfate scales and other inorganic deposits. It also give similar or better threshold scale control than many commonly used phosphonates and polyacrylates.

##### Gas Scrubbers :

In gas scrubbers, PCA can be used to disperse iron oxide and to control calcium carbonate and calcium sulfate scale deposition. It is effective under severe conditions in typical utility and steel mill gas scrubbers.

##### SPECIFICATIONS

Appearance.....colorless to pale yellow liquid  
Specific gravity(25°C)..... 1.20-1.24  
Solid Content %.....38-42  
pH..... 3.5-4.5  
Viscosity (25°C) .....About 150cps (#2, @30)

##### PACKAGING

Available in 55 gallon P.E drum , net weight 240kg. Also available in 5 gallon P.E drum, net weight 25kg.

##### STORAGE&HANDLING

Store in a cool, dry and ventilated area, away from fire and oxidizing materials.

Avoid ingestion and inhalation and all contact with skin and eyes. Protective clothing, goggles and pvc or rubber gloves should be worn. In case of contact with eyes, flush immediately with water for at least 15min and get medical attention. If any of the product has been swallowed, do not induce vomiting but give large quantities of milk or water if the person is conscious. Get medical attention immediately.