

Research On Ascorbic Acid (Vitamin C) As Unpoisonous Corrosion Inhibitor In Water Cooling system

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=76474&lokasi=lokal>

Abstrak

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In order to maintain issued of environmental safe and clean, Indonesian government has been tried very hard to reduce toxicity, especially in water cooling systems by prohibiting chromate to be used.

A part from inhibitor chromate, the industries still use some inhibitors such as zinc phosphate, polyphosphonat etc, but the dangers of these inhibitors still unsolved. To anticipated of this condition, in this time has been made an advances of development of unpoisonous inhibitor called Ascorbic Acid (vitamin C).

The investigation started with behaviour of Ascorbic Acid in near neutral aqueous solution regarding corrosion of stainless steel. The experiment result indicated that inhibition of Ascorbic Acid gave effectiveness of 75 - 83 %. with intervals of 60 - 100 ppm. This effectiveness values can be said that Ascorbic Acid very promising to be used for inhibitor corrosion. Furthermore research must take place to get more information about inhibition of Ascorbic Acid, so that Ascorbic Acid can be used commercially in industries.