Artha Hutama Wiraraja, 2011, Studi Laju Korosi Baja SS-316L Terhadap Variasi Konsentrasi *Inhibitor Quinoline* ($C_9H_7N$) Dan Temperatur Dalam Larutan NaCl, Skripsi ini di bawah bimbingan Jan Ady, S.Si.M.Si dan Drs.Djoni Izak R.,M.Si, Departemen Fisika, Fakultas Sains dan Teknologi, Universitas Airlangga.

## ABSTRACT

The use of metal in the industrial and technological development as one of the supporting very large role. the most vulnerable place and disrupt the resistance of the metal is the rate of corrosion of the metal. The addition of inhibitors is one way of overcoming corrosion. This study used type 316L Stainless Steel with Addition of variation of the concentration of inhibitor quinoline 5 millimolar, 10 millimolar, 20 millimolar dissolved in saline with a concentration variation of 1.5%, 3.5% and 5%. Calculations performed by the method of corrosion rate of mass loss (weight loss). After the corrosion tests carried out by varying the concentration of NaCl without addition of corrosion inhibitors with the highest rate at concentrations of 5% and the lowest at 1.5% concentration. The addition of quinoline inhibitors to the respective NaCl concentration able to inhibit the corrosion rate of steel SS-316L, this can be seen in the decline in value of the corrosion rate after the addition of quinoline inhibitors. The addition of quinoline inhibitors on NaCl has improved the efficiency of inhibition of SS-316L steel. In testing an optical microscope it appears that specimens get the addition of 20 millimolar quinoline inhibitors have a more homogeneous surface compared to the addition of a lower concentration of inhibitor.

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Kata kunci : *inhibitor, inhibitor Quinoline, SS-316L, NaCl.*