



STUDY ON THE SOLUBILITY OF
EPPAWALA ROCK PHOSPHATE

by

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ABSTRACT

The Eppawala Rock Phosphate (E.R.P) has low solubility. But it has been reported that the solubility in acidic media, (the $P_2O_5\%$) increases.

The total phosphate content was found to be about 30% and the water soluble phosphate content was about 0.02%. These are in accordance with the reported data.

In this study, the solubility of E.R.P in acidic effluent, from Rubber was carried out. It was shown higher solubility than water. However, concentration of formic acid in Rubber effluent was not adequate to break down the calcium phosphate lattice in E.R.P completely.

With sodium silicate, E.R.P was shown considerable high solubility because, the calcium phosphate in E.R.P, releases PO_4^{3-} to the solution. Sodium silicate is a strong base and the pH has to be controlled by using formic acid (received from rubber effluent). This can be used as a fertilizer successfully. In this method a stable compound is formed, calcium silicate which can be separated and be used for many industries.

