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USE OF SOME CASTOR OIL DERIVATIVES
AS SURFACTANTS IN NR LATEX INDUSTRY

by

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ABSTRACT

Surfactants which find applications in local NR latex industry are chiefly imported chemicals. With a view to replace some of these chemicals with locally producible materials, in this study, castor oil extracted in this country was converted chemically into its derivatives - castor soap (potassium ricinoleate) and sulphated castor oil. The effects of addition of each derivative on the stability and foaming behaviour of NR latex and on emulsification of a liquid softener (paraffin oil) were investigated. Further, the derivative, sulphated castor oil was also tested for its suitability as a dispersing agent in the preparation of an accelerator (ZMBT) dispersion.



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To assess the performances of these derivatives in the above determinations, parallel tests were also carried out using potassium oleate in the first two tests and Dispersol LN (sodium salt of naphthalene formaldehyde sulphonate) in the third test.

The results of these investigations reveal that both derivatives of castor oil-castor soap (potassium ricinoleate) and sulphated castor oil function very effectively like potassium oleate, in stabilising and foaming of NR latex. The effectiveness of castor soap in foaming is better than that of potassium oleate. Castor soap can be satisfactorily used in preparing emulsion of liquid softener. Sulphated castor oil is not suitable for preparing dispersions or emulsions.

