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A SIMPLE PRECOLUMN DERIVATIZATION METHOD FOR THE Determination of mancozeb technical (fungicide) by reverse Phase HPLC-UV

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Asimple and fast pre-column derivatization High Performance liquid Chromatographic method for the analysis of Mancozeb technical was developed and validated in the present study. The mobile phase consists a mixture of Acetonitrile and 0.1% (v/v) formic acid in the proportion 60:40. This was found to give sharp peak of S-ethyl derivative of Mancozeb (S-ethyl ethylenebisdithiocarbamate) at a retention time of 9.12 minutes. HPLC analysis of Mancozeb was carried out at a wave length of 272 nm with a flow rate of 1.0 mL / minute. The linear regression analysis data for the calibration curve showed a good linear relationship with a regression coefficient 0.999 in the concentration range of 8.2 mg/L to 32.3 mg/L for derivative of Mancozeb technical. The method was validated for specificity, linearity, precision and accuracy.

Biography

D T Seshadri is a Manager of Analytical Development Laboratory in R&D of Indofil Industries Limited. He has been working in analysis of Agrochemicals and Specialty Chemicals for more than 15 years. He has done his doctoral work in the synthesis, characterization and applications of conducting polymers and their composites from U.D.C.T.-Mumbai. He is currently also guiding doctoral students and affiliated with various Universities in India as an Industry Co-supervisor.

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