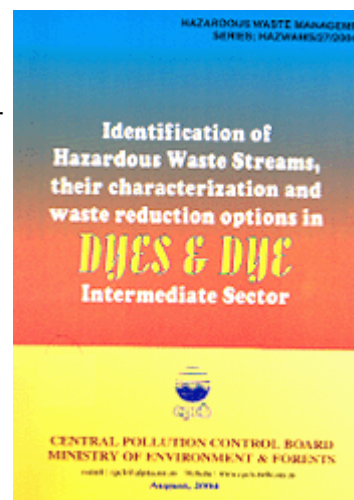


## Identification of Hazardous Waste Streams, their Characterization and waste reduction options in Dyes & Dye Intermediate Sector

### Foreword

The Ministry of Environment & Forests (MoEF), Govt. of India has promulgated Hazardous Waste (Management & Handling) Rules, 1989 under the Environment (Protection) Act, 1986 and subsequently amended the Rules in January, 2000 and May 2003. According to these rules, the wastes are classified based on (i) 36 processes with waste streams (Schedule-I); (ii) Waste substances with concentration limit (Schedule-II) and, (iii) Characteristics of waste (Schedule-III).

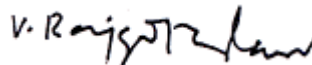
In order to provide technical assistance and information needed for identification of hazardous waste streams, its characterisation and waste management practices by industry, the Central Pollution Control Board (CPCB) has taken up a project on "Identification of Hazardous Waste Streams, their Characterisation and Waste Reduction Options in Dyes &



"Dye Intermediate Sector" in collaboration with the National Chemical Laboratory (NCL), Pune. This report entails information on various hazardous waste streams generated in Dyes & Dye Intermediate sector, their quantification in terms of per tonne of product and characterisation of waste generated from various streams. The report also provides the hazardous waste management practices along with recycling, recovery and waste minimisation options required for reduction of hazardous wastes.

My colleagues Shri S.S. Pal, Scientist 'B', Dr. Inamul Haq, Senior Scientist and Shri N.K. Verma, Addl. Director, were involved in evaluation and finalisation of report under supervision of Dr. B. Sengupta, Member Secretary, CPCB. The information contained in this document has been collected through a survey & indepth study conducted through NCL in collaboration with CPCB. Necessary inputs provided by the industry representatives and experts during the interaction-meet organized by CPCB for finalisation of this document are also acknowledged.

We hope, this report on "Dyes & Dye Intermediate Sector" will be useful for industry, regulatory bodies and others who are involved in hazardous waste management activities.

  
(V. Rajagopalan)  
Chairman, CPCB