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# Azo dyes used in textile industries pdf

Volume 88, August 2017, Pages 214-226View Abstract 1.Tomkin, Robert (2002) Trade promotion authority: CQ house action report2. Sudha M, Saranya A, Selvakumar G et al (2014) Microbial degradation of azo dyes: review. Int J Curr Microbiol App Sci 3(2):670-690CAS Google Scholar 3.Baban A, Yediler A, Lienert D et al (2003) High-strength ozone segregated outflow from woolly textile case and end appliance. Dyes Pigments 58(2):93-98CAS Google Scholar Article 4.Pandey A, Singh P, Iyengar L (2007) Bacterial decolorination and degradation of azo dyes. International Biodeterioration & Biodegradation 59(2):73-84CAS Article Google Scholar 5.Singh RL, Singh PK, Singh RP (2015) Enzymatic Decolorination and Decommissioning of Azo Dyes – overview. International Biodeterioration & Biodegradation 104:21–31CAS Article Google Scholar 6.Singh RL, Khanna SK, Singh GB (1988) Acute and short-term toxicity of the popular mixture of methane yellow and orange II in albino rats. 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SXCR Environmental Technology 35(8):956–965CAS Article Google Scholar Page 2 From: Degradation of Synthetic Azo Dyes of Textile Industry: a Sustainable Approach Using Microbial Enzymes Types of azo dye Application Hazardous effect Reference Benzamine (BZ)based azo dye Dokazani mutageni i bili Povezana s rakom bešike Po nacionalnom institutu za varnost i zdravstvo na delu, barvanje ima kancerogeni efekt na humani urinarni bešik i tumorigeni efekt na raznolikost laboratorijskih životinja [39] Reaktivna briljantno rdeča Se intenzivno uporablja u tekstilu, a posledica je atraktivne barve i kapaciteta hitre fiksacije Inhibit funkcije humanog serumskega albumina , se lahko vežejo na telesne beljakovine ali encime, Cause alteration of function [40] Direct Blue 15 (dimethoxybenzidine-based dye) Substitute for trypan blue, used in some biological and staining applications Mutagenic effect and mutagenecity causes due to reduction process, alsohaving strong carcinogenic effect [2] Acid Violet 7 Used in food, paper, cosmetic, and especially in textile Chromosomal aberration, Inhibition of acetylcholineterase activity, membrane lipid peroxidation [41] Malachi green Se u silk, skin and paper used as antimicrobial u aquaculture Carcinogenicity, mutagenesis, chromosomal fractures, teratogenicity and respiratory toxicity. There are significant changes in biochemical blood parameters in fish exposed to mg. Histopathological effects of MG include damage to several organic tissues [43] Reactive black 5 (sulphonic azo dye) It is used as a dye to limit the efficiency of the use of nitrogen plants, The decline in urease activity, the potential for mutagenicity and carcinogenicity is increased [17, 42, 44] Disperse Red 1 i Disperse Red 13 Used as textile dye in industry Mutagenic to salmonella, human beings too (first evaluated using the micronucleus assay in human lymphocytes) may affect the activity and composition of microbial communities [45,46,47] Congo red, used for cotton dye carcinogen and mutagenic effect [48] [48] [48] [48]

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