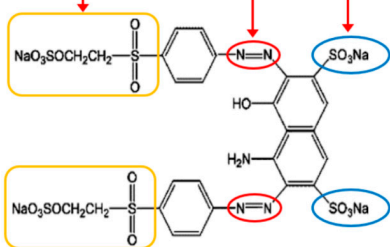
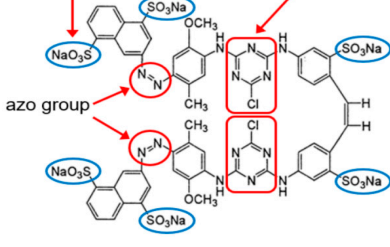


Supplementary materials:

Table S1. Characteristics of dyes used in the study

| Dye Name | Reactive Black 5 (RB5) | Reactive Yellow 84 (RY84) |
|-------------------------|--|--|
| Structural formula |  |  |
| Chemical formula | $C_{26}H_{21}N_5Na_4O_{19}S_6$ | $C_{56}H_{38}Cl_2N_{14}Na_6O_{20}S_6$ |
| Molecular weight | 991 g/mol | 1628 g/mol |
| Dye class | double azo dye | double azo dye |
| Dye type | anionic (reactive) | anionic (reactive) |
| Type of reactive groups | vinylsulfone | chlorotriazine |
| λ_{max} | 598 nm | 356 nm |
| Uses | dyeing wool, polyamide fiber, cotton viscose | dyeing cotton, silk, polyester |
| Hazards | May be able to cause mutations, may be associated with the development of bladder cancer | May cause sensitization by inhalation; may be able to cause mutations |
| Other trade names | Begazol Black B; Remazol Black B | Active Yellow HE-4R; Lamafix Yellow HER. |