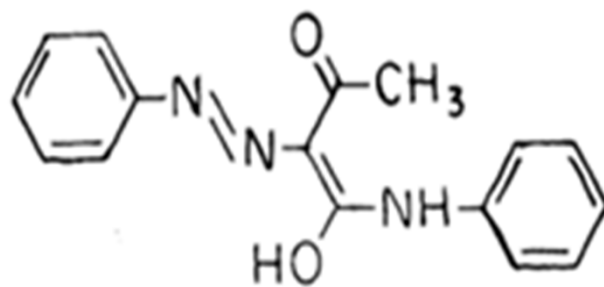


Azo dyes and pigment

The N=N group is called azo, related to AZOTE the French name of nitrogen. Azo compound are that bears the functional group R-N=NR, where R could be alkyl or aryl group. As a consequence of π -delocalization, aryl azo compound have vivid colors, especially reds, orange and yellow. They are used as dyes, and are commonly known as azo dye

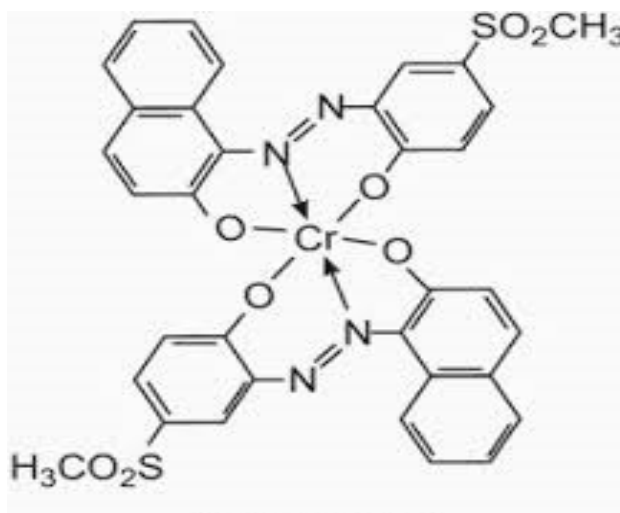
Azo dyes and azo pigment are the most important class of both non metallized and metallized colorants. Azo compound coordinate with metal ions depend on the nature of the metal, their valence, type of chelating rings formation and pH of the reaction medium.

Examples of synthetic Azo dyes and their uses:



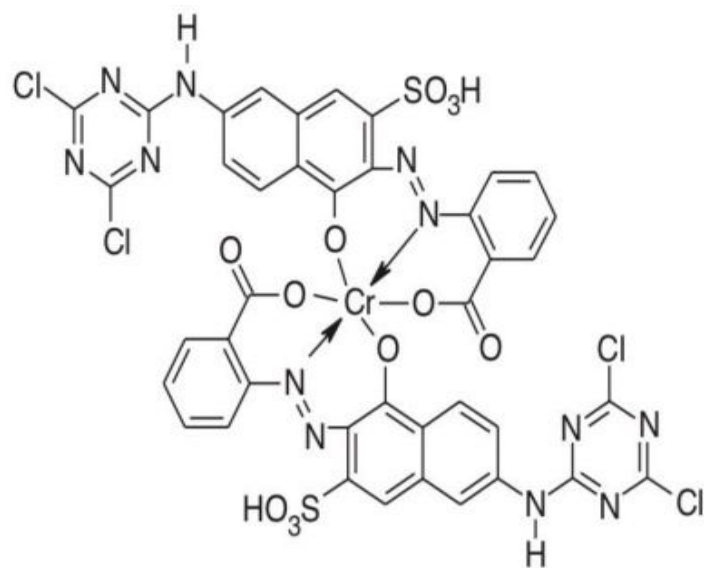
Used as Printing inks and pigments

Ref: Griffiths J., Color and Constitution of Organic Molecules, Academic Press, London 1976.



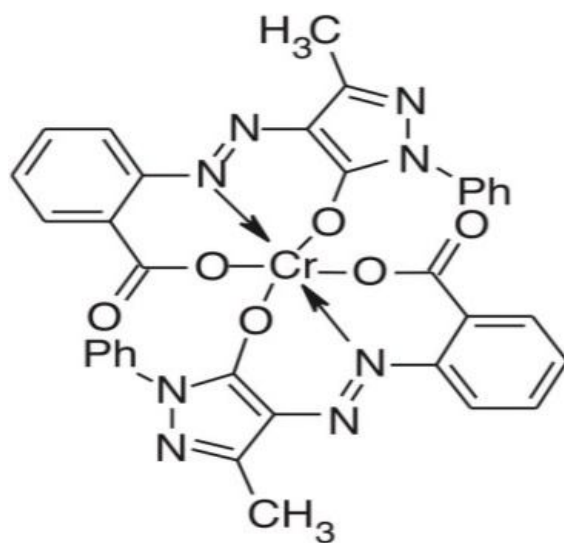
Used as coloring wool, dyeing cellulose fibers, staple fibers and yarn.

Ref: Clements A., The essential chemical industry, University of York, Chemical Industry Education Centre, 2010



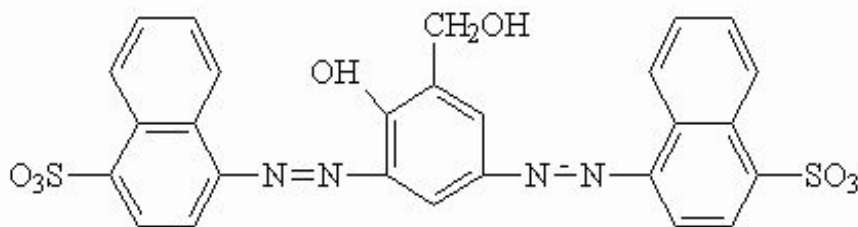
Used in varnishes as a woods tain.

Ref: Gordon P. F., Gregory P., Organic Chemistry in Colour, Springer-Verlag, Berlin



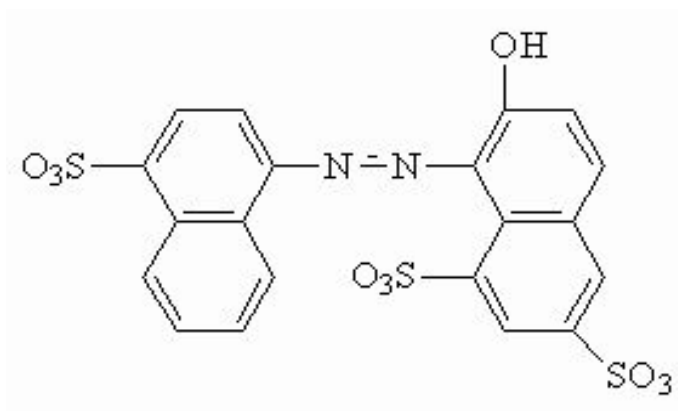
Used for dyeing wool and nylon.

Ref: Gordon P. F., Gregory P., Organic Chemistry in Colour, Springer-Verlag, Berlin



Used in textile dyeing, nonlinear and photo electronics in optical information storage.

Ref: WARING D. R., Heterocyclic Dyes and Pigments, Kodak Limited, Kirb



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