



Azo Dyes are characterized by the presence of one or more Azo groups (- N=N -) and constitute, numerically, the most important class of synthetic colouring matters, about 70 %. They have no analogues in natural colouring matters and are produced by a common process involving two reactions :

1. Diazotization of a primary amine and
2. Coupling of the diazonium salt with a phenol or aromatic amine with free ortho or para position or components having active methylene positions such as acetoacetamide, pyrazolones, etc.

Azo dyes comprise all shades with the exception of bright green colours and are suitable for all natural and synthetic fibres, leather, oils, paper, food and plastics. Their popularity in use is due to lower costs, brilliancy and adequate colourfastness properties.

Azo Dyes may be of the following classes:

- Acid Dyes
- Basic Dyes
- Direct Dyes
- Disperse Dyes
- Mordant Dyes
- Pigments
- Solvent Dyes
- Chrome Dyes

Tests for Azo Dyes

Dyed textiles – Non polyester	BS EN 14362-1
Dyed textiles – Polyester	BS EN 14362-2
Dyed textiles – Polyester blends	BS EN 14362-1 & 2
Dyed leather	ISO 17234

Summary of the 24 Banned amines



No .	Name	CAS #	Other common Names
1	4 Amino biphenyl	92-67-1	Para amino diphenyl Xenyl amine
2	Benzidine	92-87-5	Para diamino diphenyl Fast Corinth B, BR
3	4 Chloro-o-toluidine	95-69-2	2 amino 5 chloro toluene 4 chloro 2 methyl amine Red TR Base
4	2 Napthylamine	91-59-8	β Napthylamine Fast Scarlet B Base
5	<i>o-Amino Azotoluene **</i>	97-56-3	<i>2 amino 5 azotoluene Toluazotoluidine Fast Garnet GBC Base</i>
6	<i>2 Amino 4 nitrotoluene **</i>	99-55-8	<i>Fast Scarlet G Base 5-nitro-o-toluidine</i>
7	p-Chloroaniline	106-47-6	Para aminochlorobenzene
8	2-4 diamino anisole	615-05-4	4 Methoxy-m-phenylene diamine 2-4 diamino phenyl methyl ether
9	4,4' Diamino diphenyl methane	101-77-9	4,4' Methylene dianiline
10	3,3' Dichlorobenzidine	91-94-1	-
11	3,3' Dimethoxybenzidine	119-90-4	o-dianisidine Dipara amino dimeta methoxy diphenyl Fast Blue B Base
12	3,3' Dimethylbenzidine	119-93-7	o-Tolidine Diamino ditolyl
13	3,3' Dimethyl 4,4' Diamino diphenylmethane	838-88-0	4,4' methylene bis (o-toluidine)
14	p-cresidine	120-71-8	2 Methoxy 5 methyl aniline 5 methyl-o-anisidine Meta amino para cresol methyl ether
15	4,4' Methylene-bis-(2 chloroaniline)	101-14-4	3,3' Dichloro 4,4' Diamino diphenyl methane 4,4' methylene-bis-(ortho-chloroaniline)
16	4,4' Oxydianiline	101-80-4	4,4' Diamino diphenyl ether
17	4,4' Thiodianiline	139-55-1	4,4' Diamino diphenyl sulphide
18	<i>o-Toluidine **</i>	95-53-4	<i>o-amino toluene</i>
19	<i>2,4 diamino toluene **</i>	95-80-7	<i>4 methyl 1,3 phenylene diamine Toluene 2,4 diamine 4 meta toluylene diamine</i>
20	2,4,5 Trimethyl aniline	137-17-7	Pseudo cumidine 1,2,4-trimethyl 5 amino benzene
21	o-anisidine	90-4-0	2-Methoxy Benzamine
22	2,4 xylidine	95-68-1	2,4 Dimethyl Benzamine
23	2,6 xylidine	87-62-7	2,6 Dimethyl Benzamine
24	p-amino azobenzene		-