

# Dyes

Azo dyes may pose cancer risks and have been restricted in many countries, most notably of the European Union.

Neats at 100 mg. Solutions at 100 µg/mL in MeOH, except as noted.

## Individual Dyes

Compound	Synonym	CAS No.	NEAT Cat. No.	100 mg	Solution Cat. No.	1 mL
2-Amino-3-nitrophenol		603-85-0	DYE-107N		DYE-107S	
2-Amino-4-chlorophenol		95-85-2	-----		DYE-034S *	
2-Amino-5-(diethylamino)toluene monohydrochloride		2051-79-8	DYE-104N		DYE-104S	
2-Aminophenol		95-55-6	DYE-108N		DYE-108S	
Acid Red 26	<i>Ponceau Xylidine</i>	3761-53-3	-----		DYE-031S	
Acid Violet 7		4321-69-1	DYE-121N		DYE-121S	
Acid Violet 9		6252-76-2	DYE-122N		DYE-122S	
Acid Violet 19		3244-88-0	DYE-123N		DYE-123S	
Acid Violet 20			DYE-124N		DYE-124S	
Acid Violet 30			DYE-125N-5MG		DYE-125S	
Acid Violet 49		1694-09-3	DYE-120N		DYE-120S	
Basic Blue 7		2390-60-5	DYE-113N		DYE-113S	
<i>Basic Blue 26</i>	see Victoria Blue					
Basic Fuchsin		569-61-9	DYE-049N		DYE-049S	
Basic Red 2		477-73-6	DYE-114N		DYE-114S	
Basic Red 9		569-61-9	-----		DYE-030S	
Basic Violet 1		8004-87-3	DYE-027N		DYE-027S	
Basic Violet 3	Crystal Violet	548-62-9	DYE-028N		DYE-028S	
Basic Violet 14		632-99-5	-----		DYE-012S	
<i>Congo Red</i>	see Direct Red 28					
Crocein Scarlet 3b		5413-75-2	DYE-115N		DYE-115S	
<i>Crystal Violet</i>	see Basic Violet 3					
D & C Red 7		5281-04-9	DYE-060N		DYE-060S	
2,4-Diaminodiphenylamine		136-17-4	DYE-102N		-----	
2,6-Diaminopyridine		141-86-6	DYE-103N		DYE-103S	
N,N-Dimethyl-1,4-phenylenediamine		99-89-9	DYE-106N		DYE-106S	
Direct Black 38		1937-37-7	-----		DYE-013S	
Direct Blue 6		2602-46-2	-----		DYE-014S	
Direct Red 28	<i>Congo Red</i>	573-58-0			DYE-064S	
Disperse Blue 1		2475-45-8	-----		DYE-001S	
Disperse Blue 3		2475-46-9	-----		DYE-004S	
Disperse Blue 7		3179-90-6	-----		DYE-015S	
Disperse Blue 26		3860-63-7	-----		DYE-016S	
Disperse Blue 35			-----		DYE-009S	
Disperse Blue 102		12222-97-8	-----		DYE-017S	
Disperse Blue 124		61951-51-7	-----		DYE-010S	
Disperse Brown 1		23355-64-8	DYE-051N		DYE-051S	
Disperse Orange 1		2581-69-3	-----		DYE-005S	
Disperse Orange 3		730-40-5	-----		DYE-006S	
Disperse Orange 11		82-28-0	-----		DYE-002S	
Disperse Orange 37		13301-61-6	-----		DYE-011S	
Disperse Red 1		2872-52-8	-----		DYE-007S	
Disperse Red 11		2872-48-2	-----		DYE-018S	
Disperse Red 17		3179-89-3	-----		DYE-019S	
Disperse Yellow 1		119-15-3	-----		DYE-053S	
Disperse Yellow 3		2832-40-8	DYE-003N		DYE-003S	
Disperse Yellow 9		6373-73-5	-----		DYE-008S	
Eosin Y		15086-94-9	DYE-127N		DYE-127S	
Eriochrome Black A		3618-58-4	DYE-109N		DYE-109S	
FD & C Blue 1		3844-45-9	DYE-062N		DYE-062S	
FD & C Blue 2		860-22-0	DYE-063N		DYE-063S	
FD & C Red 3		16423-68-0	DYE-057N		DYE-057S	
FD & C Red 40		25956-17-6	DYE-056N		-----	
FD & C Yellow 5		1934-21-0	DYE-058N		DYE-058S	
Food Yellow 3	<i>Sunset Yellow FCF</i>	2783-94-0	DYE-024N		DYE-024S	
Metanil Yellow		587-98-4	DYE-117N		DYE-117S	
Methyl Blue		28983-56-4	DYE-128N		DYE-128S	
2,3-Naphthalenediol		92-44-4	-----		DYE-033S *	
2-Nitro-1,4-phenylenediamine		5307-14-2	DYE-110N		DYE-110S	
Orange II sodium salt		633-96-5	DYE-116N		DYE-116S	
Para Red		6410-10-2	DYE-026N		DYE-026S **	
Ponceau SX		4548-53-2	-----		DYE-112S	
<i>Ponceau Xylidine</i>	see Acid Red 26					
Rhodamine B		81-88-9	-----		DYE-118S	
Solvent Orange 7	Sudan II	3118-97-6	DYE-021N		DYE-021S	
Solvent Red 19	<i>Sudan Red 7B</i>	6368-72-5	DYE-025N		DYE-025S	
Solvent Red 23	<i>Sudan III</i>	85-86-9	DYE-022N		DYE-022S	
Solvent Red 24	<i>Sudan IV</i>	85-83-6	DYE-023N		DYE-023S	
Solvent Yellow 1		60-09-3	-----		DYE-029S	
Solvent Yellow 14	<i>Sudan I, Solvent Orange R</i>	842-07-9	DYE-020N		DYE-020S	
Sudan II	Solvent Orange 7	3118-97-6	DYE-045N		DYE-045S	
Timbasol Brown trans oxide			DYE-055N		DYE-055S	
Victoria Blue	<i>Basic Blue 26</i>	2580-56-5	DYE-111N		DYE-111S	

\* in AcCN  
\*\* in THF

# Dyes

## EU Directive 2002/61/EC Determination of Aryl Amine Breakdown Products in Azo Dyes

### Individual Aryl Amine Standards

Compound	100 µg/mL	1000 µg/mL	10 µg/mL in
	in AcCN 1 mL	in AcCN 1 mL	Ethyl acetate for 10 mL 10 mL
<i>o</i> -Aminoazotoluene	RAC-01	RAC-01-10X	RAC-01-EA-0.1X-10ML
4-Aminobiphenyl	RAC-02	RAC-02-10X	RAC-02-EA-0.1X-10ML
2-Amino-4-nitrotoluene	RAC-03	RAC-03-10X	RAC-03-EA-0.1X-10ML
Benzidine †	RAC-04	RAC-04-10X	RAC-04-EA-0.1X-10ML
4-Chloroaniline	RAC-05	RAC-05-10X	RAC-05-EA-0.1X-10ML
4-Chloro- <i>o</i> -toluidine	RAC-06	RAC-06-10X	RAC-06-EA-0.1X-10ML
<i>p</i> -Cresidine	RAC-07	RAC-07-10X	RAC-07-EA-0.1X-10ML
2,4-Diaminoaniline *	RAC-08	RAC-08-10X	RAC-08-EA-0.1X-10ML
4,4'-Diaminodiphenylmethane	RAC-09	RAC-09-10X	RAC-09-EA-0.1X-10ML
2,4-Diaminotoluene	RAC-10	RAC-10-10X	RAC-10-EA-0.1X-10ML
3,3'-Dichlorobenzidine †	RAC-11	RAC-11-10X	RAC-11-EA-0.1X-10ML
3,3'-Dimethoxybenzidine †	RAC-12	RAC-12-10X	RAC-12-EA-0.1X-10ML
3,3'-Dimethylbenzidine †	RAC-13	RAC-13-10X	RAC-13-EA-0.1X-10ML
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	RAC-14	RAC-14-10X	RAC-14-EA-0.1X-10ML
4,4'-Methylenebis(2-chloroaniline)	RAC-15	RAC-15-10X	RAC-15-EA-0.1X-10ML
2-Naphthylamine	RAC-16	RAC-16-10X	RAC-16-EA-0.1X-10ML
4,4'-Oxydianiline	RAC-17	RAC-17-10X	RAC-17-EA-0.1X-10ML
4,4'-Thiodianiline	RAC-18	RAC-18-10X	RAC-18-EA-0.1X-10ML
<i>o</i> -Toluidine	RAC-19	RAC-19-10X	RAC-19-EA-0.1X-10ML
2,4,5-Trimethylaniline	RAC-20	RAC-20-10X	RAC-20-EA-0.1X-10ML
<i>p</i> -Aminoazobenzene	RAC-21	RAC-21-10X	RAC-21-EA-0.1X-10ML
2-Aminobiphenyl	RAC-22	RAC-22-10X	RAC-22-EA-0.1X-10ML
<i>o</i> -Anisidine	RAC-23	RAC-23-10X	RAC-23-EA-0.1X-10ML
3-Chloro- <i>o</i> -toluidine	RAC-24	RAC-24-10X	RAC-24-EA-0.1X-10ML

#### RAC-R1-SET 24 x 1 mL

100 µg/mL \* In the form of the Sulfate hydrate 171 µg/mL in Pyridine (100 µg/mL as the base)

#### RAC-R1-10X-SET 24 x 1 mL

1000 µg/mL \* In the form of the Sulfate hydrate 1,710 µg/mL in Pyridine (1000 µg/mL as the base)

† Subject to oxidation

### Carcinogenic Aryl Amine Mix

**AE-00049-R1** 1 x 1 mL  
10 µg/mL in Ethyl acetate 23 comps.

**AE-00049-R1-10ML** 1 x 10 mL  
10 µg/mL in Ethyl acetate 23 comps.

*o*-Aminoazotoluene  
4-Aminobiphenyl  
2-Amino-4-nitrotoluene  
Benzidine †  
4-Chloroaniline  
4-Chloro-*o*-toluidine  
*p*-Cresidine  
4,4'-Diaminodiphenylmethane  
2,4-Diaminotoluene  
3,3'-Dichlorobenzidine †  
3,3'-Dimethoxybenzidine †  
3,3'-Dimethylbenzidine †  
3,3'-Dimethyl-4,4'-diaminodiphenylmethane  
4,4'-Methylenebis(2-chloroaniline)  
2-Naphthylamine  
4,4'-Oxydianiline  
4,4'-Thiodianiline  
*o*-Toluidine  
2,4,5-Trimethylaniline  
*p*-Aminoazobenzene  
2-Aminobiphenyl  
*o*-Anisidine  
3-Chloro-*o*-toluidine

### Internal Standards

**RAC-IS** 1 x 1 mL  
1000 µg/mL in AcCN

**RAC-IS-EA** 1 x 1 mL  
1000 µg/mL in Ethyl acetate

3,3',5,5'-Tetramethylbenzidine †

**AE-00049-SET** 2 x 1 mL  
AE-00049-R1, RAC-08



## EU Directive 67/548/EEC Dyes

### Criterion #22 Regulated Dyes Carcinogenic

Compound	100 µg/ml in MeOH	
	Cat. No.	1 mL
Disperse Blue 1	DYE-001S	
Disperse Orange 11	DYE-002S	
Disperse Yellow 3	DYE-003S	
Basic Violet 14	DYE-012S	
Direct Black 38	DYE-013S	
Direct Blue 6	DYE-014S	

### Criterion #23 Regulated Dye Disperse dyes, Sensitizing

Compound	100 µg/ml in MeOH	
	Cat. No.	1 mL
Disperse Blue 3	DYE-004S	
Disperse Orange 1	DYE-005S	
Disperse Orange 3	DYE-006S	
Disperse Red 1	DYE-007S	
Disperse Yellow 9	DYE-008S	
Disperse Blue 35	DYE-009S	
Disperse Blue 124	DYE-010S	
Disperse Orange 37	DYE-011S	
Disperse Blue 7	DYE-015S	
Disperse Blue 26	DYE-016S	
Disperse Blue 102	DYE-017S	
Disperse Red 11	DYE-018S	
Disperse Red 17	DYE-019S	

## EU Directive 76/768/EEC Substances contained in Hair Dyes Ban

Compound	CAS No.	NEAT 100 mg	100 µg/ml in MeOH
		Cat. No.	Cat. No.
2-Amino-3-nitrophenol	603-85-0	DYE-107N	DYE-107S
2-Amino-5-(diethylamino)toluene monohydrochloride	2051-79-8	DYE-104N	DYE-104S
2-Aminophenol	95-55-6	DYE-108N	DYE-108S
Basic Blue 7	2390-60-5	DYE-113N	DYE-113S
Basic Red 2	477-73-6	DYE-114N	DYE-114S
Crocein Scarlet 3b	5413-75-2	DYE-115N	DYE-115S
2,4-Diaminodiphenylamine	136-17-4	DYE-102N	-----
2,6-Diaminopyridine	141-86-6	DYE-103N	DYE-103S
N,N-Dimethyl-1,4-phenylenediamine	99-89-9	DYE-106N	DYE-106S
Eriochrome Black A	3618-58-4	DYE-109N	DYE-109S
2-Nitro-1,4-phenylenediamine	5307-14-2	DYE-110N	DYE-110S
Ponceau SX	4548-53-2	-----	DYE-112S
Victoria Blue	2580-56-5	DYE-111N	DYE-111S