



HANDBOOK OF MH DYES

(NON-TEXTILE)

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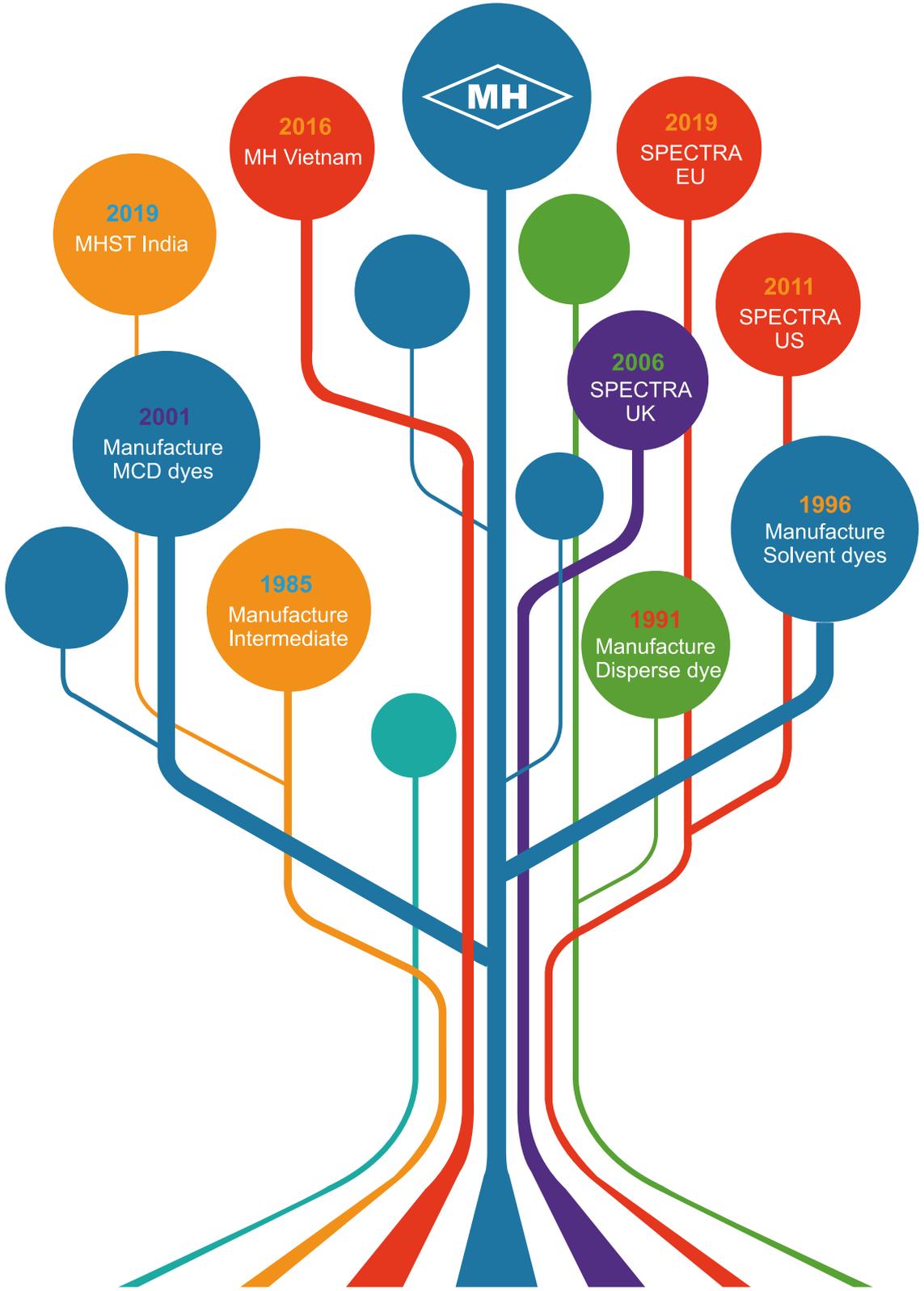
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Dyes offer brilliant and transparent colours in a wide range applications,
 Guide to applications in the table below.

	GA/GB/GT Dyes	GS/GD Dyes	MH Dyes
 Wax Products		•	•
 Petroleum Products		•	
 Transparent Plastics		•	
 Printing Inks	•		•
 Stationery Ink	•		•
 Industrial Inks	•		•
 Sublimation Inks		•	
 Leather Coloring	•		•
 Wood Coatings	•		•
 Paints	•	•	•
 Smoke Colors		•	
 Speciality	•	•	

* The below selection offer good solubility in wax, oil and grease.

* SOLVENT OIL DYES

PRODUCT NAME	C. I. NO.	APPLICATION			
		Candle	Polish	Lubricant	Chemicals Petroleum
 GS YELLOW HA	Solvent Yellow 12	●		●	
 GS YELLOW 3G	Solvent Yellow 16	●		●	●
 GS YELLOW M	Solvent Yellow 18	●		●	
 MH YELLOW 20	Solvent Yellow 21		●		
 GS YELLOW GG	Solvent Yellow 56			●	●
 GS ORANGE E	Solvent Yellow 14		●	●	●
 MH ORANGE 09	Solvent Orange 62		●		
 GS ORANGE 816	Solvent Orange 86			●	●
 MH RED 04	Solvent Red 8		●		
 GS RED HRR	Solvent Red 23		●		
 GS RED RR	Solvent Red 24	●	●	●	●
 GS RED 10R	Solvent Red 27	●	●	●	●
 GS BROWN BB	Solvent Red 3	●	●	●	
 GS BLUE MB	Solvent Blue 35	●		●	●
 GS BLACK HB	Solvent Black 3	●	●		
 GS BLACK SA	Solvent Black 7	●	●		
 MH BLACK 20	Solvent Black 27		●		
 GS GREEN GOLD	Solvent Green 5				●



DYES FOR PLASTIC

* The selection below are soluble in a wide range of plastics offering a good color palette.

* SOLVENT POLYMER DYES

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GS YELLOW 2GP	Solvent Yellow 93	Medium shade yellow
	GS YELLOW FW	Solvent Yellow 114	Medium shade yellow
	GS ORANGE HRP	Solvent Orange 60	Yellow shade orange
	GS ORANGE RG	Solvent Orange 107	Strong red shade orange
	GS RED MPFW	Solvent Red 111	Medium shade red
	GS RED H3G	Solvent Red 135	Medium shade red
	GS RED A2G	Solvent Red 179	Medium shade red
	GS RED BB	Solvent Red 195	Strong blue shade red
	GS RED TRFW	Solvent Red 52	Strong blue shade/magenta
	GS RED VIOLET R	Solvent Violet 59	Red shade violet
	GS BLUE OB	Solvent Violet 13	Blue shade violet
	GS BLUE M	Solvent Blue 35	Clean, strong medium shade blue
	GS BLUE RR	Solvent Blue 97	Red shade blue
	GS BLUE S	Solvent Blue 104	Red shade blue
	GS GREEN B	Solvent Green 3	Blue shade green
	GS YELLOW 3R	Solvent Yellow 98	Medium shade fluorescent yellow
	GS GREEN GOLD	Solvent Green 5	Green shade fluorescent yellow
	GS RED GG	Solvent Orange 63	Red shade fluorescent orange
	GS RED 5B	Vat Red 41	Blue shade Fluorescent Red

* OPTICAL BRIGHTENER

	GS OB	C.I.FBA 184	Use in a wide variety of plastics
	GS OB-1	C.I.FBA 393	PP, ABS, EVA, PS, PC and fibre
	GS KCB	C.I.FBA 367	A wide use, especial EVA foam
	GS FP	C.I.FBA 378	PVC and PP

* Suitable for PS, ABS, PMMA, PC, PVC-R, PET and etc.

* In compliance with AP89-1 and RoHS

PROPERTY IN POLYMER(Light fastness / Heat Resistance 5 min)

ABS	PMMA	PC	PET	PA-6	PET Fiber
* *	7 260	8 300	* *	* *	
8 280	7 260	8 320	7-8 300	* *	√
7-8 280	8 260	8 320	8 300	* *	√
7 280	7 260	7 300	7 290	* *	√
5 280	7 260	7 300	7 280	2 260	
7-8 280	8 260	8 300	8 300	5 280	√
7-8 280	7-8 260	7-8 300	7-8 300	* *	√
6-7 260	7 260	8 300	8 290	* *	
6 250	7 260	6-7 300	6-7 280	5 270	
6 280	7 260	8 300	7 280	5 260	
5 260	7 260	7 300	7 280	* *	√
5 240	6 260	* *	6 280	* *	
6 250	7 260	6-7 280	6-7 280	5 280	
5 280	7 260	7-8 320	8 300	* *	√
6 280	7 260	7-8 300	7 280	* *	√
5-6 280	7 260	7 300	7 300	2-3 300	
5 280	6 260	6 300	* *	4-5 300	
6-7 280	7 260	7 300	7 290	3 270	
6 250	7 260	6-7 300	* *	* *	

* FLUORESCENT PIGMENTS

GS-2000 Processing temperature 190 °C

GS-3000 Processing temperature 260 °C, formaldehyde free.

GS-8900 Processing temperature 280 °C, easy dispersion



Strong Yellow



Orange Yellow



Orange



Red Orange



Red



Pink



Magenta



Violet



Blue



Green

DYES FOR INK AND COATING

* SOLVENT SOLUBLE POWDER DYES

* MH Dyes are particularly suited for a wide range of gravure printing inks, writing instrument applications, transparent foil lacquers, wood stains and leather finish.

PRODUCT NAME	C. I. NO.	SOLUBILITY (g/l)						
		Alcohol 99.5%	Isopropanol	1-Methoxy-2-Propanol	Ethyl Acetate	MEK	Solvent Mixture*	
 MH YELLOW 181	Solvent Yellow 79	190	40	240	>500	>500	400	
 MH YELLOW 20	Solvent Yellow 21	280	250	220	480	>500	450	
 MH YELLOW 57	Solvent Yellow 82	260	80	300	460	470	370	
 MH YELLOW AB	Solvent Orange 11	150	110	110	280	300	280	
 MH YELLOW KK	Solvent Orange 45	300	140	220	460	400	>500	
 MH ORANGE 10	Solvent Orange 54	230	60	180	>500	>500	480	
 MH ORANGE 09	Solvent Orange 62	230	70	190	150	500	400	
 MH ORANGE 72	Solvent Orange 99	260	190	290	280	120	400	
 MH RED 04	Solvent Red 8	180	170	330	300	500	250	
 MH RED GLS	Solvent Red 89	70	160	240	15	260	280	
 MH RED 55	Solvent Red 119	10	<10	300	10	>500	360	
 MH RED 06	Solvent Red 122	200	80	200	400	500	330	
 MH RED G	Solvent Red 125	140	10	40	20	<10	220	
 MH RED 357	Solvent Red 124	10	<10	340	20	300	430	
 MH RED 12	Solvent Red 49	30	20	260	>500	300	320	
 MH RED 10	Solvent Red 218	100	<10	30	<10	200	360	
 MH BLUE 03	Solvent Blue 5	30	<10	<10	-	20	180	
 MH BLUE BS	Solvent Blue 45	45	50	215	300	380	200	
 MH BLUE 06	Solvent Blue 70	90	130	210	15	450	350	
 MH BLUE GN	Solvent Blue 67	100	50	130	70	210	140	
 MH GREEN 20	MIXTURE	70	100	300	250	>500	330	
 MH GREEN 575	MIXTURE	25	60	210	25	>500	400	

DYES FOR INK AND COATING

* A well established range with high quality brilliant colors in compliance with EN71.3-71.9.

PRODUCT NAME	C. I. NO.	SOLUBILITY (g/l)						
		Alcohol 99.5%	Isopropanol	1-Methoxy-2-Propanol	Ethyl Acetate	MEK	Solvent Mixture*	
 MH BROWN 02	MIXTURE	100	40	130	100	400	350	
 MH BROWN 05	MIXTURE	120	50	300	100	400	400	
 MH BLACK 20	Solvent Black 27	20	15	300	40	400	80	
 MH BLACK 17	Solvent Black 29	30	25	300	40	300	300	
 MH BLACK 04	Solvent Black 34	20	<10	180	30	300	30	
 MH BLACK 56	Solvent Black 28	130	60	150	40	400	200	

* NIGROSINE SOLVENT SOLUBLE

 GS BLACK BR	Solvent Black 5	50	25	120	110	140	125
 GS BLACK SA	Solvent Black 7	35	40	170	40	35	70

* FLUORESCENT PIGMENTS

GS-4000 Usable for solvent system ink and paint

GS-5000 Usable transparent for gravure inks in MEK.

									
Strong Yellow	Orange Yellow	Orange	Red Orange	Red	Pink	Magenta	Violet	Blue	Green



DYES FOR INK

* WATER SOLUBLE POWDER DYES

* Dyes consist of a wide range of acid and basic water soluble powder dyes used in the formulation of various inks.

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GA YELLOW N	Acid Yellow 23	Red Shade Yellow
	GA RED 4B	Acid Red 52	Fluorescent Magenta
	GA VIOLET 4BS	Acid Violet 17	Blue shade Red
	GA BLUE AE	Acid Blue 9	Green Shade Blue
	GA BLACK LDN	Acid Black 172	Black
	GA BLACK SRL	Acid Black 194	Red Shade Black
	GA RED A	Acid Red 87	Ink Red
	GA BLUE G	Acid Blue 93	Ink Blue
	GA BLACK AT	Acid Black 2	Ink Black (Nigrosine)
	GS PYRANINE	Solvent Green 7	Fluorescent Yellow
	GB VIOLET B	Basic Violet 10	Brilliant Blue Shade Red
	GB BLUE BO	Basic Blue 7	Brilliant Royal Blue

* JET INK DYES

* Dyes that are made available for water based inkjet inks are ones that are soluble in water soluble and are able to provide colors that are highly saturated.

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GA YELLOW N	Acid Yellow 23	Yellow
	GA YELLOW 3GF	Direct Yellow 132	Yellow
	GA RED 4B	Acid Red 52	Magenta
	GA BLUE AE	Acid Blue 9	Cyan
	GT BLUE FBL	Direct Blue 199	Cyan
	GT BLACK SB	Direct Black 168	Black

* SUBLIMATION INK DYES

* Dyes used in digital sublimation are for all commercial grade applications and are compatible with low cost ink jet ink systems as well.

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GD YELLOW 8GFF	Disperse Yellow 82	Fluorescent Yellow
	GD YELLOW 3G	Disperse Yellow 54	Medium Shade Yellow
	GD ORANGE R	Disperse Orange 25	Red Shade Orange
	GD RED 2B	Disperse Red 60	Red
	GD VIOLET 5B	Disperse Violet 17	Blue Shade Red
	GD BLUE 6R	Disperse Blue 72	Violet
	GD BLUE GP	Disperse Blue 14	Bright Blue
	GD BLUE 4G	Disperse Blue 359	Royal Blue
	GD BLUE BG	Disperse Blue 60	Green Shade Blue



DYES FOR LEATHER AND WOOD

* WATER SOLUBLE POWDER DYES

* Dyes are selected for their brilliance, clarity and easy of use in water based systems, particularly suitable for wood stains, leather dyeing and spraying.

	PRODUCT NAME	C. I. NO.	Wood	Leather Dyeing	Leather Spray
	GA YELLOW GW	Acid Yellow 61			●
	GA YELLOW GL	Acid Yellow 118			●
	GA YELLOW SG	Acid Yellow 220	●	●	
	GA ORANGE 2RL	Acid Orange 89			●
	GA ORANGE P2R	Acid Orange 154	●	●	
	GA RED ARB	Acid Red 226			●
	GA RED 2BN	Acid Red 249	●	●	
	GA RED SB	Acid Red 405	●	●	
	GA RED S3G	Acid Red 407	●	●	
	GA VIOLET MB	Acid Violet 90	●	●	
	GA BLUE 2RL	Acid Blue 209			●
	GA BLUE RL	Acid Blue 260	●	●	
	GA BROWN RG	Acid Brown 50			●
	GA BROWN GR	Acid Brown 282	●	●	
	GA BLACK NA	Acid Black 52	●	●	
	GA BLACK RL	Acid Black 63			●
	GA BLACK SRL	Acid Black 194	●	●	



* WATER SOLUBLE LIQUID DYES

* MH liquid dyes are easy to use, free-flowing concentrates in two forms L and W as listed below.

* L TYPE

- * Universal use - solvent-based system or water dilution
- * Excellent transparency
- * Easy customization

	PRODUCT NAME	SOLID CONTENT	LIGHT FASTNESS
	MH YELLOW 12-L	20%	6-7
	MH ORANGE 23-L	20%	6-7
	MH RED 33-L	20%	7-8
	MH RED 36-L	20%	6-7
	MH BLACK 53-L	20%	7-8
	MH BLACK 55-L	20%	6-7
	MH BROWN 48-L	20%	6-7
	MH BROWN 49-L	20%	6-7
	MH GREEN 70-L	17%	5-6
	MH BLUE 66-L	17%	3-4

* W TYPE

* Water soluble of environment friendly.

	PRODUCT NAME	SOLID CONTENT	LIGHT FASTNESS
	MH YELLOW 57-W	25%	5-6
	MH ORANGE 09-W	15%	5-6
	MH RED 35-W	22%	5-6
	MH BLACK 20-W	23%	5-6
	MH BROWN 02-W	22%	5-6
	MH BLUE 03-W	11%	4-5

DYES FOR SPECIALITY

* SMOKE DYES

* used to make colored smoke in pyrotechnic devices that have the following applications:

military - smoke grenades and smoke ammunitions for signals and training,

security - ATM and cash protection,

safety - distress signals and marine locator markers,

entertainment - special effects, aerial smoke, etc .

	PRODUCT NAME	C. I. NO.	SPECIFICATIONS
	SMOKE WHITE	2-methy AQ	N/A
	SMOKE YELLOW YC	Solvent Yellow 33	DOD-D-51485A
	SMOKE ORANGE E	Solvent Yellow 14	Def Stan 68-58/2
	SMOKE ORANGE 816	Solvent Orange 86	Def Stan 68-58/2
	SMOKE RED SG	Solvent Red 1	DOD-D-51523
	SMOKE RED MPFW	Disperse Red 9	Mil-D-3284E
	SMOKE ROYAL PURPLE	Solvent Violet 47	Mil-D-3668D
	SMOKE BLUE GP	Disperse Blue 14	Def Stan 68-58/2
	SMOKE GREEN G	Solvent Green 3	Mil-D-3277E



* EMERGENCY

* Offer strong and are very stable fluorescence in daytime and luminescent in darkness.

	GA YELLOW GDC	Acid Yellow 73	Sea marking, leak detection
	LUMINESCENT HG K2	Particle Size 25-35 (µm)	Yellowish Green Effect
	LUMINESCENT HG K4	Particle Size 25-50 (µm)	Yellowish Green Effect

* ADHESIVES, DETERGENT AND PERFORMANCE ADDITIVES

* Bright and clean for adhesives, compatible with polyvinyl acetate, acrylic, polyurethane, latex, polychloroprene, casein, and other solvent system adhesive polymers.

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GS RED RR	Solvent Red 24	Blue Shade Red
	GS GREEN B	Solvent Green 3	Blue Shade Green
	GS BLUE AP	Solvent Blue 36	Mid Shade Blue
	GS BLUE OB	Solvent Violet 13	Violet
	GS OB	C.I.FBA 184	Fluorescent Blue White



* Good solubility in water system, in a wide pH range, and very compatible with adhesives, cleaning compounds, performance additives and other automotive coolant systems.

	PRODUCT NAME	C. I. NO.	COLOR SHADE
	GA YELLOW N	Acid Yellow 23	Red Shade Yellow
	GA ORANGE A	Acid Orange 7	Orange
	GA GREEN G	Acid Green 25	Blue Shade Green
	GA BLUE AE	Acid Blue 9	Green Shade Blue
	GA YELLOW GDC	Acid Yellow 73	Fluorescent Yellow
	GA RED 4B	Acid Red 52	Fluorescent Pink
	GS CBS-X	C.I.FBA 351	Fluorescent Blue White