

**PIGMENTS, PIGMENT
PREPARATIONS
& DYES
COLORANTS FOR
SPECIAL APPLICATIONS**

PIGMENTS, PIGMENT PREPARATIONS AND DYES **FROM SUDARSHAN**

Sudarshan supplies pigments and dyes. These ranges, supplemented by pigment preparations, special formulations and special grades, contain a wide variety of products for the key areas of Special Applications.

On the following pages we give a general overview of our colorants, indicating their possible uses in the main fields of application. Only the standard ranges of the pigments and dyes have been included here.

THE SYMBOLS MEAN

- Highly recommended
- Recommended
- Limited suitability
- Not recommended

We would however point out that these recommendations are a general guide intended to make it easier selecting suitable products from our range of colorants.

In this brochure the products are grouped by the main application fields for Special Applications to allow customers easier identification of suitable products for their working area. Some products may be used in more than one area, therefore they may be listed in several of the main application fields in parallel.

Further details of coloristic and application properties can be taken from the literature quoted.

The final formulation has an impact on the color appearance. Please conduct preliminary tests to match the shade to your requirements. Our product portfolio is continuously being improved to keep pace with the dynamic market needs.

In general, the manufacturer of the formulation is responsible for using ingredients that meet the local legislative requirements. We at Sudarshan provide our customers with comprehensive technical support and maintain up-to-date information about the legal requirements applying to our products.

Our sales organizations and our technical service and development department will be pleased to give you further information at any time.

NOTES ON DIARYLIDE PIGMENTS

It has been known for some time that thermal degradation may occur when diarylide pigments are processed in polymers at temperatures above 200 °C.

Pigments supplied by Sudarshan with the following Colour Index numbers are such diarylide pigments:

Pigment Yellow 12
Pigment Yellow 13
Pigment Yellow 16
Pigment Yellow 17
Pigment Yellow 81
Pigment Yellow 83
Pigment Orange 13
Pigment Orange 34

The trade names of the commercial products recommended for the special application industries that are based on the above diarylide pigments can be found in this brochure besides the mentioned CI names.

These products can form traces of aromatic amines at processing temperatures above 200 °C in the presence of polymers (see safety data sheets; further information is also given in ETAD INFORMATION NOTICE No. 2 "Thermal Decomposition of Diarylide Pigments" – September 1990).

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1

PRODUCTS FOR HOME CARE, PERSONAL CARE AND COSMETICS

1.1

DYES

1.1.1

SANOLIN

Sanolin dyes are water-soluble powders especially used for coloration of home and fabric care products in liquid, paste or powder form (e.g. hard surface cleaners, dish wash tabs).

Selected Sanolin grades are included in at least one of the authorized use lists for cosmetic colorants for the EU, USA or Japan and are therefore also suitable for the coloration of personal care products (e.g. shower gel). Those colorants are marked with the respective cosmetic label names and use restrictions in the table below.

The Sanolin powder grades are exposed to low dose ionizing radiation and therefore meet high microbiological purity requirements of customers active in the home & personal care industry.

EU Regulation 1223/2009 on cosmetic Products annex IV List of colorants allowed in cosmetic products-column »Product type, body parts«

1 = No use restrictions

2 = Not to be used in eye products

3 = Not to be used in products applied to mucous membranes

4 = For rinse-off products only

Japan: Colorants for cosmetic and drug applications are regulated by the Pharmaceutical Affairs law. Permitted use categories are determined by classification into three groups:

List 1 – for application in all drugs and cosmetics
(including Lip/ Oral, Eye Area, External and Rinse-off)

List 2 – for application in cosmetics
(including Eye Area, External and Rinse-off)

List 3 – for applications in cosmetic intended not to come into contact with mucous membranes
(including Eye Area but not eyeliner, External and Rinse-off)

Product Name	C.I. Name C.I. Number	Cosmetic Label Name	Use Restriction	Fields of Application								
		USA	USA									
		EU	EU									
		Japan	Japan	Soap/ Cosmetics	Granule coloration (speckles)	Laundry powder detergents	Laundry liquid and heavy-duty detergents	Fabric softener	Dish washing detergents/ Tabs	Household cleaners	wood stains	Office supplies
SANOLIN QUINOLINE YELLOW 70	Acid Yellow 3	—	—									
	Food Yellow 13	CI 47005	1	■	●	—	●	—	○	■	●	●
	47005	—	—									
SANOLIN TARTRAZINE X 90	Acid Yellow 23	—	—									
	Food Yellow 4	CI 19140	1	■	—	●	●	●	●	■	●	●
	19140	Ki4	1									
SANOLIN YELLOW BG 30	Direct Yellow 28	—	—									
	19555	—	—	—	■	●	—	—	●	■	—	—
		—	—									
SANOLIN ORANGE RGL 90	Food Yellow 3	—	—									
	15985	CI 15985	1	●	—	—	●	●	○	■	●	●
		Ki5	1									
SANOLIN PONCEAU 4RC 82	Acid Red 18	—	—									
	Food Red 7	CI 16255	1	●	—	—	●	●	●	■	●	●
	16255	—	—									
SANOLIN RED NBG	Acid Red 249	—	—									
	18134	—	—	—	■	—	—	—	■	■	—	●
		—	—									
SANOLIN RHODAMINE B 02	Acid Red 52	—	—									
	45100	CI 45100	4	■	■	■	■	■	■	■	—	●
		Aka106	1									
SANOLIN RED N-6B	Acid Violet 54	—	—									
	—	—	—	—	●	—	■	■	●	■	—	—
	181345	—	—									
SANOLIN VIOLET E2R	Acid Violet 126	—	—									
	—	—	—	—	■	●	■	■	■	■	—	—
	621645	—	—									
SANOLIN VIOLET FBL	Acid Violet 48	—	—									
	—	—	—	—	■	●	■	■	■	■	—	—
	621725	—	—									
SANOLIN BLUE EHRL	Acid Blue 182	—	—									
	—	—	—	—	■	■	■	■	■	■	—	—
	621310	—	—									
SANOLIN BLUE NBL	Acid Blue 80	—	—									
	61585	CI 61585	4	■	■	■	■	■	■	■	—	—
		—	—									
SANOLIN PATENT BLUE V 85 01	Food Blue 5:2	—	—									
	42051:2	CI 42051	1	●	—	—	●	●	○	■	●	—
		—	—									
SANOLIN BLUE AE 90	Acid Blue 9	—	—									
	Food Blue 2	CI 42090	1	●	—	—	●	●	○	■	●	—
	42090	AO1	1									
SANOLIN TURQUOISE BLUE FBL	Direct Blue 199	—	—									
	74190	—	—	—	■	●	●	●	●	■	—	—
		—	—									

1.1.2

SANOLIN LIQUID

The Sanolin liquid grades are aqueous dye solutions used for coloration of home and fabric care products in liquid, paste or powder form and offer convenient handling and dosing without premixing powders.

They also meet high microbiological purity requirements of customers active in the home care industry.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.									
			Soap/ Cosmetics	Granule coloration (speckles)	Laundry powder detergents	Laundry liquid and heavy-duty detergents	Fabric softener	Dish washing detergents/ Tabs	Household cleaners	wood stains	Office supplies
SANOLIN VIOLET AS-SP LIQUID	Direct Violet 66	29120	—	●	●	■	●	●	■	—	—
SANOLIN VIOLET AS-E2R LIQUID	Acid Violet 126	621645	—	●	●	■	■	■	■	—	—
SANOLIN BLUE EHRL LIQUID	Acid Blue 182	621310	—	■	■	■	■	■	■	—	—

1.1.3

SANOLIN LAVE LIQUID

The Sanolin Lave liquid dyes are non-staining liquid colorants.

They provide both – bright and brilliant shades combined with easy rinseability from skin, fabrics, and surfaces. All colorants are especially recommended for the coloration of fabric and home care products. Being water soluble liquids, the colorants are easy to handle without premixing powders.

ADVANTAGES:

Improved non-staining behavior on skin, textiles and surfaces

- High tinting strength
- Excellent transparency and brilliancy
- Microbiological purity is specified and tightly controlled
- Colorimetrically standardized in aqueous solutions
- Easy handling, dosing and cleaning of equipment

FIELDS OF APPLICATION

PRODUCT NAME	Liquid Laundry Detergents	Fabric Softeners	Laundry Powder Detergents	Liquid Dish Wash Detergents	Hard Surface Cleaners
SANOLIN LAVE YELLOW GX LIQ.	■	—	■	■	■
SANOLIN LAVE RED B LIQ.	■	—	—	■	—
SANOLIN LAVE PINK B LIQ.	■	■	■	■	■
SANOLIN LAVE VIOLET B LIQ.	—	■	—	■	—
SANOLIN LAVE BLUE A LIQ.	■	■	■	■	■
SANOLIN LAVE BLUE R LIQ.	■	■	—	■	■
SANOLIN LAVE BLUE T LIQ.	■	■	—	■	■
SANOLIN LAVE GREEN G LIQ.	—	—	—	■	■

1.1.4

DUASYN AND DUASYN LIQUID

In home care, the Duasyn powder dyes are used primarily for coloring detergents. They offer cost-effective options for formulating.

They may also be employed for writing inks, drawing inks, stamping inks, fertilizers and crop protection products.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	DETERGENTS	OFFICE SUPPLIES		
			(e. g. cleaners)	Writing inks	Fiber-tip pen inks	Stamping inks
DUASYN INK BLUE SLK	Acid Blue 93	42780	●	■	■	■
DUASYN ACID BLUE AE 03	Acid Blue 9	42090	■	●	●	●
DUASYN ACID BLUE AE LIQUID	Acid Blue 9	42090	■	■	■	—

1.1.5

SOLVAPERM

Solvaperm dyes are organic solvent dyes originally designed for coloration of plastics.

Selected products of the range listed below may be applied for home care products based on organic solvents, oil, fat or wax, such as polish, air freshener etc. A final evaluation in the customer system is necessary.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.								
			PS	SAN	ABS	PC	PET PBT	PMMa	PA	pvc-U
SOLVAPERM YELLOW 3G	Solvent Yellow 93	48160	●	●	—	●	—	●	—	●
SOLVAPERM RED BB	Solvent Red 195	—	●	●	●	●	●	●	—	●
SOLVAPERM VIOLET RSB	Solvent Violet 13	60725	●	●	●	●	●	●	—	●
SOLVAPERM BLUE 2B-CN	Solvent Blue 104	61568	●	●	●	●	●	●	○	●
SOLVAPERM GREEN GSB	Solvent Green 3	61565	●	●	●	●	●	●	—	●
SOLVAPERM GREEN G	Solvent Green 28	625580	●	●	●	●	●	●	—	●

1.2

PIGMENT PREPARATIONS

1.2.1

COSMENYL 100

These pigment preparations are cosmetic grade aqueous dispersion with a modified preservative system and are specified for microbiological purity.

They may be selected for the coloration of personal care products (e.g. tooth paste and soaps), laundry powders and other consumer products. in liquid, paste or powder form.

The basic pigments of the preparations listed below comply with the requirements for cosmetic colorants defined by the European Regulation No. 1223/20009., respectively are included in at least one of the authorized use lists for cosmetic colorants for the EU, USA or Japan.

PRODUCT NAME	C.I. NAME C.I. NUMBER	COSMETIC LABEL NAME	USE RESTRICTION	FIELDS OF APPLICATION					
		USA EU Japan	USA EU Japan	Laundry	Bar Soap	Skin Care	Hair Care	Oral Care	Cosmetic
COSMENYL YELLOW 100	Pigment Yellow 1	–	–						
	11680	CI 11680	3	○	■	○	○	—	○
		Ki401	3						
COSMENYL OXIDE YELLOW 100	Pigment Yellow 42	Iron Oxide	1, 2, 3, 4						
	77492	CI 77492	1	■	■	○	○	○	○
		Yellow Oxide of Iron	1						
COSMENYL CARMINE OC 100	Pigment Red 5	–	–						
	12490	CI 12490	1	■	■	○	○	■	○
		–	–						
COSMENYL VIOLET 100	Pigment Violet 23	–	–						
	51319	CI 51319	4	■	■	○	○	—	—
		–	–						
COSMENYL BLUE OC 100	Pigment Blue 15:1	–	–						
	74160	CI 74160	1	■	■	○	○	■	○
		Ao404	3						
COSMENYL GREEN OC 100	Pigment Green 7	–	–						
	74260	CI 74260	2	■	■	○	○	■	○
		–	–						
COSMENYL BLACK 100	Pigment Black 7	D & C Black No. 2	*						
	77266	CI 77266	1	■	■	■	○	■	○
		Carbon Black	**						

1.2.2

COSMENYL GRAN.

These pigment preparations are supplied in granular form. They show high flow capability, and are easily dispersible in aqueous systems.

Cosmenyl gran. preparations are used for the coloration of cosmetic products (e. g. soap, or mascara), laundry powders, finger paints and other consumer products in liquid, paste or powder form.

The basic pigments of the preparations listed below comply with the requirements for cosmetic colorants defined by the European Union Regulation No. 1223/2009.

Microbiological purity specified.

PRODUCT NAME	C.I. NAME C.I. NUMBER	COSMETIC LABEL NAME	USE RESTRICTION	FIELDS OF APPLICATION					
		USA EU Japan	USA EU Japan	Laundry	Bar Soap	Skin Care	Hair Care	Oral Care	Cosmetic
COSMENYL YELLOW GLS GRAN.	Pigment Yellow 1	—	—						
	11680	CI 11680	3	■	■	○	○	—	—
		Ki401	3						
COSMENYL RED BLS GRAN.	Pigment Red 5	—	—						
	12490	CI 12490	1	■	■	○	○	○	○
		—	—						
COSMENYL BLUE BLS 30 GRAN.	Pigment Blue 15:1	—	—						
	74160	CI 74160	1	■	■	○	○	○	○
		Ao404	3						
COSMENYL GREEN 2GLS GRAN.	Pigment Green 7	—	—						
	74260	CI 74260	2	■	■	○	○	○	○
		—	—						

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* = Brilliant fluorescent effect can not be visualized by four color printing

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(including Eye Area but not eyeliner, External and Rinse-off)

1.2.3

FLEXONYL SP

Flexonyl SP dispersions are water-based pigment preparations especially used for coloration of home and fabric care products in liquid, paste or powder form. They are readily pumpable and flowable.

Microbiological purity is specified for selected grades.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	FIELDS OF APPLICATION
			Detergents
FLEXONYL RED SP-FGR	Pigment Red 112	12370	○
FLEXONYL CARMINE SP-FBB	Pigment Red 146	12485	○

1.3

COSMETIC PIGMENTS (ORGANIC)

The organic powder pigments below are included in at least one of the authorized use lists for cosmetic colorants for the EU, USA, or Japan.

They may be selected for coloration of toiletries and cosmetics (in accordance with the respective application fields) or home and fabric care products in liquid, paste or powder form.

PRODUCT NAME	C.I. NAME C.I. NUMBER	COSMETIC LABEL NAME	USE RESTRICTION	FIELDS OF APPLICATION				
		USA	USA	Bar Sopa	Skin Care	Hair Care	Oral Care	Cosmetic
		EU	EU					
		Japan	Japan					
COSMETIC PINK RC 01	Pigment Red 181	D&C Red No. 30	1, 3, 4				■	■
	Vat Red 1	CI 73360	1	○	○	○	■	■
	73360	Aka226	2					
PERMANENT CARMINE FB 01	Pigment Red 5	—	—					
	12490	CI 12490	1	■	—	—	■	○
		—	—					

LITERATURE: Brochure SPA 3002 EN

"Living Colors – Solutions for Home & Personal Care Products"

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1.4

EFFECT PIGMENTS AND FILLERS FOR COSMETIC APPLICATIONS

Our cosmetic grade inorganic pigments are clustered in the following product ranges:

- **Prestige** effect pigments offer sophisticated visual effects to skin for all types of cosmetics and skincare products. Based on pure, colorbalanced natural mica, this range enables innovation and differentiation in formulas whilst preserving the naturality. No need for synthetics or borosilicates. Choose **Prestige** for high lustre, metallic, super soft, silk, satin, pay-off and intense color effects.
- **Sumicos** effect pigments brings a great combination of opacity, lustre and value-in-use, based on natural and synthetic mica. Ideally benchmarked to common grades, the range is enhanced by our own HG technology that is based on natural mica and yet outperforming synthetic mica pigments for high lustre and color intensity. **Sumicos** high purity iron oxide pigments have excellent mass tone color and tint strength, offering a perfect opaque color base for powders, creams, gels and liquids. Our new Black Oxide is an excellent alternative to carbon black in mass tone applications.
- Sumicair functional fillers are 100 % natural mica, with a range of color and sensory properties. Color-balanced, matt, soft chemically pure, natural and multi-compatible is now possible using Indian mica, a perfect alternative to talc.

Our manufacturing sites at Roha & Mahad are EFfCI GMP certified for manufacturing of mica based pigments and iron oxides for use as cosmetic ingredients.

The products mentioned below are compliant with leading heavy metal specifications and globally published regulatory norms.

LITERATURE:

Brochure "Pigments for Cosmetics & Personal Care"

1.4.1

SILVER PIGMENTS

Natural Mica platelets coated with titanium dioxide, offering soft sheen to sparkle / glitter special effects.

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
PRESTIGE SUPER SOFT SILVER	35457	1-8
PRESTIGE SOFT SILVER	35273	1-15
SUMICOS SILVER SUPER FINE	43117	1-15
SUMICOS SILVER SILKY FINE	43124	1-25
SUMICOS SILVER FINE	43129	1-25
PRESTIGE SILK SILVER	35130	5-25
PRESTIGE SILVER	35143	10-50
SUMICOS SILVER STANDARD	43133	10-60
SUMICOS SILVER	43137	10-60
PRESTIGE BRIGHT SILVER	35162	15-70
SUMICOS SILVER SPARKLE	43149	10-100
SUMICOS SILVER FLASH	43157	15-150
PRESTIGE SPARKLING SILVER	35178	20-150
SUMICOS ECO MEGA SILVER	43177	40-450
SUMICOS ECO GLITTER SILVER	43187	50-700

1.4.2

GOLD PIGMENTS

Natural Mica platelets coated with titanium dioxide and iron oxide, Sudarshan gold pigments are available in a variety of particle size distributions offering special effects from soft sheen to sparkle effect.

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
PRESTIGE SOFT SUMMER GOLD	35499	1-15
PRESTIGE SUN GOLD	35158	10-50
SUMICOS BRIGHT GOLD	43636	10-60
PRESTIGE BRIGHT LEMON GOLD	35176	15-70
PRESTIGE BRIGHT SUN GOLD	35177	15-70
SUMICOS SPARKLE GOLD	43647	10-100
SUMICOS GOLD FLASH	43656	15-150
PRESTIGE SPARKLING LEMON GOLD	35189	20-150
PRESTIGE SPARKLING PURE GOLD	35237	20-150
SUMICOS SANDY GOLD	43648	10-100

1.4.3

INTERFERENCE PIGMENTS

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [μm]
PRESTIGE SILK GOLD	35132	5–25
PRESTIGE GOLD	35145	10–50
SUMICOS IRIDESCENT GOLD	43237	10–60
PRESTIGE BRIGHT GOLD	35164	15–70
SUMICOS IRIDESCENT GOLD FLASH	43257	15–150
PRESTIGE SPARKLING GOLD	35180	20–150
PRESTIGE SOFT ORANGE	35417	1–15
PRESTIGE ORANGE	35146	10–50
PRESTIGE SILK RED	35134	5–25
PRESTIGE RED	35147	10–50
SUMICOS IRIDESCENT PINK	43337	10–60
PRESTIGE BRIGHT RED	35166	15–70
PRESTIGE SPARKLING RED	35182	20–150
PRESTIGE PASSION PINK	35503	10–50
PRESTIGE VIOLET	35148	10–50
PRESTIGE MAGIC VIOLET	35307	10–50
SUMICOS IRIDESCENT VIOLET	43334	10–60
PRESTIGE BLUE	35149	10–50
SUMICOS IRIDESCENT BLUE	43437	10–60
PRESTIGE SILK GREEN	35137	5–25
PRESTIGE GREEN	35150	10–50

1.4.4

EARTH TONE PIGMENTS

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
PRESTIGE SUPER SOFT BEIGE	35468	1–8
PRESTIGE SOFT BEIGE	35342	1–15
SUMICOS EARTHEN MIST	43734	10–60
PRESTIGE BEIGE	35272	10–70
PRESTIGE SUPER SOFT BRONZE	35467	1–8
PRESTIGE SOFT BRONZE	35339	1–15
PRESTIGE BRONZE	35151	10–50
PRESTIGE AUTUMN SKY	35502	10–50
SUMICOS BRONZE	43737	10–60
PRESTIGE BRIGHT BRONZE	35170	15–70
SUMICOS BRONZE FLASH	43757	15–150
PRESTIGE SUPER SOFT COPPER	35466	1–8
PRESTIGE SOFT COPPER	35340	1–15
PRESTIGE COPPER	35152	10–50
SUMICOS COPPER	43837	10–60
PRESTIGE BRIGHT COPPER	35171	15–70
PRESTIGE SOFT FIRE RED	35341	1–15
PRESTIGE FIRE RED	35153	10–50
PRESTIGE BRIGHT FIRE RED	35172	15–70
PRESTIGE PEARLY ALMOND	35501	10–50
PRESTIGE RADIANT RED	35504	10–50
SUMICOS MAROON	43937	10–60

1.4.5

HIGH GLOSS PIGMENTS & GLAM & GLOW SERIES

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
SUMICOS FLASH SILVER	HG155	15–150
SUMICOS FLASH GOLD	HG255	15–150
SUMICOS FLASH RED	HG355	15–150
SUMICOS FLASH VIOLET	HG356	15–150
SUMICOS FLASH SKIN BRONZE	HG753	15–150
SUMICOS FLASH BRONZE	HG755	15–150
SUMICOS FLASH RISING SUN	HG757	15–150
SUMICOS FLASH COPPER	HG855	15–150
SUMICOS FLASH MAROON	HG955	15–150
PRESTIGE SLIVER GLOW	35381	20–90
PRESTIGE GOLD GLOW	35382	20–90
PRESTIGE VIOLET GLOW	35384	20–90
PRESTIGE BLUE GLOW	35385	20–90
PRESTIGE AQUA GLOW	35386	20–90
PRESTIGE BRIGHT GOLD GLOW	35388	20–90
PRESTIGE BRIGHT RED GLOW	35390	20–90
PRESTIGE SILVER GLAM	35391	20–150
PRESTIGE GREEN GLAM	35397	20–150

1.4.6

COLORED PIGMENTS

Absorption colorants deposited on interference pigments provide intense color to create striking effects.

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
PRESTIGE ROSE GOLD	35470 ^d	1–15
PRESTIGE SOFT RUBY	35469 ^d	1–15
PRESTIGE RUBY	35159 ^d	10–50
PRESTIGE RADIANT HOT PINK	35936 ^a	10–50
PRESTIGE INSTANT RADIANT PINK	35473 ^b	10–50
PRESTIGE INSTANT RADIANT CORAL	35472 ^c	10–50
PRESTIGE SAPPHIRE	35160 ^e	10–50
PRESTIGE RADIANT BLUE	35475	10–50
PRESTIGE EMERALD	35161 ^e	10–50
PRESTIGE RADIANT HOLO GREEN	35476	20–150
PRESTIGE AMETHYST	35320 ^{de}	10–50
PRESTIGE MIDNIGHT BLUE	35471 ^e	10–50
SUMICOS WALNUT	43839	10–60
SUMICOS TITAN BLACK ST	43130	10–60
PRESTIGE INFINITE BLACK	35474	10–50

a = Contain Silica

b = Contain D&C Red 7

c = Contain FD&C Red 40

d = Contain carmine

e = Contain ferric ferrocyanide

Note:

- 1) Pigments containing carmine and ferric ferrocyanide can be sensitive to excess heat, UV light & extreme pH. Special care must be taken when used in aqueous formulations.
- 2) In USA:
 - a) Ferric ferrocyanide containing products are prohibited for use in lip products.
 - b) D&C Red 7 containing products are prohibited for use in eye area products.
- 3) FD&C Red 40 is not an approved colorant in Japan, and therefore 35472 is prohibited in Japan for cosmetic applications.

1.4.7

SYNTHETIC MICA PIGMENTS

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [μm]
SUMICOS SILK SLIVER MIST	SM122	5–25
SUMICOS POLAR MIST	SM132	10–60
SUMICOS CRYSTAL SHIMMER	SM142	10–100
SUMICOS ARCTIC FLARE	SM162	20–250
SUMICOS SILK GOLD MIST	SM222	5–25
SUMICOS GOLD MIST	SM232	10–60
SUMICOS IRIDESCENT GOLD FLARE	SM274	20–250
SUMICOS RED MIST	SM332	10–60
SUMICOS VIOLET MIST	SM333	10–60
SUMICOS GARNET MIST	SM339	10–60
SUMICOS BLUE MIST	SM432	10–60
SUMICOS SUNSET MIST	SM632	10–60
SUMICOS AUTUMN SUNSET	SM636	10–60
SUMICOS SILK BRONZE MIST	SM722	5–25
SUMICOS BRONZE MIST	SM732	10–60
SUMICOS SAHARA SAND	SM736	10–60
SUMICOS REDDISH GOLD	SM772	20–250
SUMICOS SILK COPPER MIST	SM822	5–25
SUMICOS COPPER MIST	SM832	10–60
SUMICOS CHEYENNE RUST	SM836	10–60
SUMICOS SILK MAROON MIST	SM922	5–25
SUMICOS MAROON MIST	SM932	10–60
SUMICOS IOBLA MIST	SM130	10–60

1.4.8

FUNCTIONAL FILLERS

Sudarshan's COSMOS certified functional fillers are based on 100 % natural mica and are specially processed for enhanced sensory.

PRODUCT NAME	PRODUCT CODE	PARTICLE SIZE [µm]
SUMICAIR SATIN MICA	43027	1-25
SUMICAIR SILKEN MICA	43028	1-25
SUMICAIR SILKEN MATT MICA	43023	1-25
SUMICAIR VELVET MICA	43037	10-60
SUMICAIR CREAM MICA	43038	10-60
SUMICAIR NATUREFEEL	43031	10-60

1.4.9

IRON OXIDE PIGMENTS

PRODUCT NAME	PRODUCT CODE	COLOUR INDEX NO.
SUMICOS YELLOW	2213C	77492
SUMICOS YELLOW LHM	2215C	77492
SUMICOS BLACK	2230C	77499
SUMICOS BLACK LHM	2231C	77499
SUMICOS INTENSE BLACK LHM	2233C	77499

2 PRODUCTS FOR SHOE CARE AND FLOOR-POLISH

2.1 LICOSPERSER

Licosperse are mineral oil-based pigment preparations easily incorporated in oil, mineral low aromatic solvents or heated wax. They are recommended for the sustainable coloration of oil- or wax-based products, e. g. shoe care and floor polishes, fertilizers and herbicides, as well as for the coloration of interior, oil- and solvent based wood stains and coatings applications, exhibiting excellent compatibility.

The Colour Index relates to the base pigment.

LITERATURE:

Brochure PI 4022 E "Licosperse – Pigment Preparations"
Brochure SPA 3015 EN "Shiny Colors – First Impression Counts"

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	SOLVENT BASED APPLICATION					
			Shoe polish	Floor polish	Fertilisers	Herbicides	Wood stains	Wood varnishes
LICOSPERSER YELLOW GR 30 - ZA	Pigment Yellow 13	21100			■	■	■	■
LICOSPERSER LIGHT BROWN L 30 - ZA	Pigment Yellow 42	77492	■	■			■	■
LICOSPERSER RED MO1 30 - ZA	Mixture	—			■	■	■	■
LICOSPERSER BLUE AN 30 - ZA	Pigment Blue 15	74160	■		■	■	■	■
LICOSPERSER GREEN G - ZA	Pigment Green 7	74260			■	■	■	■
LICOSPERSER BROWN M3 30 - ZA	Mixture	—	■	■			■	■
LICOSPERSER BROWN IN 30 - ZA	Mixture	—	■	■			■	■
LICOSPERSER BLACK PVP 30 - ZA	Pigment Black 7	77266	■	■			■	■

3

PRODUCTS FOR MINERAL OIL COLORATION

3.1 FAT

The Fat dyes are in principle soluble in almost all organic solvents. Their solubility in aliphatic and aromatic hydrocarbons oils and waxes makes them suitable for coloring lubricating greases, gasoline etc.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	FIELDS OF APPLICATION
			Mineral oil
FAT YELLOW 3G	Solvent Yellow 16	12700	■
FAT BLUE B 01	Solvent Blue 35	61554	■

4

PRODUCTS FOR VISCOSE DYEING

4.1

VISCOFIL

Aqueous preparations, specially developed for spin dyeing of viscose, containing pigments that are resistant to the stresses occurring in this process.

The Viscofil grades are noted for high dispersion stability in viscose. Excellent color yield leads to economic processing of Viscofil for the viscose spin dyeing industry.

The Colour Index data relate to the basic pigments.

LITERATURE:

Pattern card DP 5027 E "Viscose Spin Dyeing Industry – Economic processing by use of Viscofil"

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.
VISCOFIL YELLOW A2GN	Pigment Yellow 14	21095
VISCOFIL YELLOW AGX	Pigment Yellow 74	11741
VISCOFIL YELLOW 2GLL	Pigment Yellow 155	200310
VISCOFIL YELLOW GGVD	Pigment Yellow 17	21105
VISCOFIL GOLDEN RVD	Pigment Yellow 13	21100
VISCOFIL GOLDEN YELLOW RRVDN	Mixture	—
VISCOFIL ORANGE GG 30	Pigment Orange 13	21110
VISCOFIL ORANGE GRVD	Pigment Orange 4	12459
VISCOFIL ORANGE RL 30	Pigment Orange 34	21115
VISCOFIL RED AGN	Pigment Red 2	12310
VISCOFIL RED GVD	Pigment Red 2	12310
VISCOFIL RED BL	Pigment Red 5	12490
VISCOFIL RED F5RK 30	Pigment Red 170	12475
VISCOFIL RUBINE BFVD	Pigment Red 32	12320
VISCOFIL BORDEAUX BB 30	Pigment Violet 32	12517
VISCOFIL VIOLET BLN	Pigment Violet 23	51319
VISCOFIL BLUE ARN	Pigment Blue 15	74160
VISCOFIL BLUE FRVD	Pigment Blue 15	74160
VISCOFIL BLUE B2G 30	Pigment Blue 15:3	74160
VISCOFIL GREEN A-GNS	Pigment Green 7	74260
VISCOFIL GREEN GVDN 20	Mixture	—
VISCOFIL BROWN HFR 30	Pigment Brown 25	12510
VISCOFIL BLACK 2BLN	Pigment Black 7	77266
VISCOFIL BLACK VBC	Pigment Black 7	77266
VISCOFIL WHITE A-RCL 30	Pigment White 6	77891

EXCELLENT PROPERTIES OF VISCOFIL

- High tinting strength
- Small particle size
- Brilliant shades
- Excellent stability in acid and alkaline media
- Excellent stability under reductive conditions

5

PRODUCTS FOR AGRICULTURAL APPLICATIONS

With the Agrocer® products, Sudarshan has developed a dedicated offering of pigments and aqueous pigment preparations for the use in agricultural applications which meets the requirements of the leading players in the industry.

The products are suitable for seed coatings coloration, seed treatment pesticide formulations and adjacent application fields such as fertilizer coloration.

The mentioned products have been successfully tested for crop safety and show no phytotoxicity and no negative impact on germination.

The Agrocer products listed below are exempted from the requirement of a tolerance under U.S. EPA 40 CFR § 180.920.

5.1

AGROCER

The pigments of the Agrocer range are specially developed for the use in agricultural applications. They are dedicated for seed coatings coloration, seed treatment pesticide formulations and adjacent application fields such as fertilizer coloration. The pigments are easily dispersible, exhibit a high color strength and show good hiding power which is important in achieving good coverage on various types of seeds.

The Agrocer pigments below are exempted from the requirement of a tolerance under U.S. EPA 40 CFR § 180.920.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	AGRICULTURAL SECTOR
AGROCER YELLOW 001	Pigment Yellow 1	11680	■
AGROCER RED 112	Pigment Red 112	12370	■
AGROCER RED 482	Pigment Red 48:2	15865:2	■
AGROCER VIOLET 023	Pigment Violet 23	51319	■
AGROCER BLUE 153	Pigment Blue 15:3	74160	■
AGROCER GREEN 007	Pigment Green 7	74260	■

5.2

AGROCER DISP.

Agrocer disp. are aqueous pigment dispersions recommended for seed coatings coloration, seed treatment pesticide formulations and adjacent applications. Agrocer dispersions are state-of-the-art dispersions with low viscosity, high color strength and optimum storage stability. They are easy to handle, readily pumpable for simple dosing and mixing and facilitate the cleaning of production equipment. All Agrocer dispersions are manufactured without the use of alkyl phenol ethoxylate (APEO).

Due to their composition Agrocer pigment dispersions are compatible with all common seed treatment pesticide formulations as well as seed coating products.

The Agrocer dispersions below are exempted from the requirement of a tolerance under U.S. EPA 40 CFR § 180.920.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	PIGMENT CONTENT %
AGROCER YELLOW 001 DISP-MX	Pigment Yellow 1	11680	46
AGROCER RED 112 DISP.	Pigment Red 112	12370	40
AGROCER RED 482 DISP.	Pigment Red 48:2	15865:2	35
AGROCER VIOLET 023 DISP	Pigment Violet 23	51319	30
AGROCER BLUE 153 DISP-MX	Pigment Blue 15:3	74160	40
AGROCER GREEN 007 DISP-MX	Pigment Green 7	74260	40

5.3

AGROCER TMF DISP.

Agrocer TMF disp. are a new development of aqueous pigment dispersions recommended for seed coatings coloration, seed treatment pesticide formulations and adjacent applications.

Like the existing Agrocer and Agrocer Disp. products, the new Agrocer TMF disp. range has been successfully tested for crop safety and shows no phytotoxicity and no negative impact on germination.

This dedicated range is based on tristyrilphenol-free and microplastic free dispersing agents to respond to future upcoming environmental regulations.

The Agrocer dispersions below are exempted from the requirement of a tolerance under U.S. EPA 40 CFR § 180.920.

PRODUCT NAME	COLOUR INDEX	COLOUR INDEX NO.	PIGMENT CONTENT %
AGROCER TMF YELLOW 001 DISP	Pigment Yellow 1	11680	36
AGROCER TMF RED 112 DISP.	Pigment Red 112	12370	40
AGROCER TMF RED 482 DISP.	Pigment Red 48:2	15865:2	33
AGROCER TMF VIOLET 023 DISP	Pigment Violet 23	51319	35
AGROCER TMF BLUE 153 DISP.	Pigment Blue 15:3	74160	32
AGROCER TMF GREEN 007 DISP.	Pigment Green 7	74260	42
AGROCER TMF WHITE 006 DISP.*	Pigment White 6	77891	52

LITERATURE:

Brochure SPA 3016 EN "Colorants for Seed Treatment and Fertilizers – Agrocer®"

Brochure SPA 0001 EN "Colorants for Seeds and Seed Treatment Products – AGROCER® TMF* PIGMENT DISPERSIONS"

6

PRODUCTS FOR STATIONERY APPLICATIONS

Sudarshan offers a broad portfolio of colorants to enhance the appearance and performance of:

- Art and creative paints
- Pencils, crayons and chalks
- Writing inks
- Marker inks

Choose a colorant which covers most of the current regulations relevant for these articles. Our broad range of colorants includes:

PIGMENTS

Powders

- Selected Cosmetic, Graphtol®, Hansa®, Hostaperm®¹⁾, Novoperm®, Permanent and PV Fast®

DYES

Water soluble powders and liquids

- Duasyn®
- Sanolin®

Super washable water soluble polymeric dyes

- Sanolin® Lave liq.
- Solvent soluble powders
- Savinyl®

PIGMENT PREPARATIONS

Aqueous dispersions

- Colanyl®
- Cosmenyl®
- Hostafine®
- Flexonyl®
- Viscofil®

Solvent soluble Granules

- Hostanol® HW 30

The following tables contain a selection of colorants successfully used in writing inks and art, creative and school materials. Included in Sudarshan's extensive portfolio is a multitude of other colorants which may match your specific application performance requirements perfectly. In general, the manufacturer of the formulation is responsible for using ingredients that meet the local legislative requirements. We at Sudarshan provide our customers with comprehensive technical support and maintain up-to-date information about the legal requirements applying to our products.

For further information please refer to the separate brochures of the key applications fields. Please do not hesitate to contact our experts for additional product and applications recommendations.

6.1

PIGMENTS

PRODUCT NAME	COLOUR INDEX	ART, CREATIVE AND SCHOOL MATERIAL						WRITING INKS
		Oil paints	Aquarelle	Acrylic paints	Pencil	Wax crayon	Chalk	Gel pen ink
HANSA YELLOW 10G	PY 003	●	●	—	●	●	●	—
HANSA BRILLIANT YELLOW 5GX	PY 074	●	●	—	●	●	●	—
HANSA BRILLIANT YELLOW 2GX 70	PY 074	●	●	—	●	●	—	—
GRAPHTOL YELLOW DHG-CN09	PY 012	●	●	—	●	●	●	—
GRAPHTOL YELLOW 3GP-IN	PY 155	●	●	—	●	●	—	—
HANSA YELLOW G02	PY 001	●	●	—	●	●	●	—
PERMANENT YELLOW P-G-IN	PY 014	—	●	—	●	●	●	—
GRAPHTOL YELLOW GG	PY 017	—	○	—	○	●	○	—
GRAPHTOL YELLOW GR-CN09	PY 013	●	—	—	●	●	●	—
PERMANENT YELLOW GR 01	PY 013	●	●	—	●	●	●	—
NOVOPERM YELLOW HR 02-CN09	PY 083	●	●	—	●	●	○	—
NOVOPERM YELLOW HR70	PY 083	●	●	—	●	●	—	—
NOVOPERM ORANGE HL 70	PO 036	●	●	—	●	●	—	—
HANSA RED GG	PO 005	—	○	—	—	●	●	—
GRAPHTOL ORANGE RL	PO 034	●	●	—	●	●	—	—
PERMANENT ORANGE RL70	PO 034	●	●	—	●	●	—	—
NOVOPERM RED HF3S	PR 188	●	●	—	●	—	—	—
HANSA SCARLET RNC	PR 003	—	●	—	●	—	●	—
PIGMENT RED FRLL 01	PR 009	●	●	—	●	—	—	—
PERMANENT RED FRR	PR 002	—	●	—	●	—	●	—
PERMANENT RED FGR	PR 112	●	●	—	●	●	●	—
HOSTAPERM RED D3G 70-CN	PR 254	●	●	—	●	●	—	—
NOVOPERM RED F3RK 70	PR 170	●	●	—	●	—	—	—
GRAPHTOL RED F5RK-CN09	PR 170	●	●	—	●	—	—	—
PERMANENT CARMINE FB01	PR 005	●	●	—	●	—	●	—
PERMANENT CARMINE FBB02	PR 146	●	●	—	●	—	—	—
COSMETIC PINK RC01	PR 181	●	●	—	●	—	—	—
HOSTAPERM RED E3B	PV 019	●	●	—	●	●	—	—
HOSTAPERM RED E5B 02	PV 019	●	●	—	●	●	—	—
HOSTAPERM RED VIOLET ER02	PV 019	●	●	●	●	●	—	●
HOSTAPERM PINK E	PR 122	●	●	—	●	●	—	—
HOSTAPERM PINK EB TRANSP.	PR 122	●	●	—	●	●	—	—
PERMANENT BORDEAUX FRR	PR 012	●	●	—	●	●	—	—
GRAPHTOL RUBINE L4B-CN09	PR 057:1	—	●	—	●	—	●	—
PV FAST VIOLET RL	PV 023	●	●	—	●	●	●	—
GRAPHTOL BLUE AN 01	PB 015	●	●	—	●	●	●	—
PV FAST BLUE A4R	PB 015	●	●	—	●	●	●	—
PV FAST GREEN GNX	PG 007	●	●	—	●	●	●	—
HOSTAPERM BROWN HFR01	PBr 025	●	●	—	●	●	●	—

6.2

PIGMENT PREPARATIONS (WATER BASED)

From children's paints, chalks, and crayons, to fine-liners, gel pens, and aquarelles – the world's natural vibrancy is reflected in the materials we use to create beautiful things. We offer a broad range of high quality pigment preparations (aqueous dispersions based on pigments) that meet the strictest international environmental, health and safety standards.

Among the preparations mentioned below is the dedicated Hostafine SP 32 range.

Hostafine SP 32 is a newly developed range of aqueous, binder-free pigment preparations especially designed for stationery applications. It is manufactured with an improved dispersant and biocide package meeting latest environmental regulations. The Hostafine SP 32 dispersions are ultra fine pigment preparations with very small particle sizes. These preparations show high tinting strength with high transparency and brilliance. Viscosity is low and stability against settling and skinning is excellent.

PRODUCT NAME	COLOUR INDEX	ART, CREATIVE AND SCHOOL MATERIAL						WRITING INKS			MARKER INKS		
		Oil paints	Aquarelle	Acrylic paints	Pencil	Wax crayon	Chalk	Gel pen ink	Felt tip pen ink (roller ball, fine liner, needle ball)	Pigmented felt tip pen ink (fine liner, durable drawing)	Permanent marker ink	White board marker ink	Stamping ink
COLANYL YELLOW 10G 132	PY 003	—	○	○	—	—	—	●	—	—	—	—	●
COLANYL YELLOW 5GX 131	PY 074	—	○	○	—	—	—	●	—	—	—	—	●
VISCOFIL YELLOW 2GLL	PY 155	—	○	○	—	—	—	○	—	—	—	—	●
COSMENYL YELLOW 100	PY 001	—	●	●	—	—	—	●	—	—	—	—	●
HOSTAFINE YELLOW SP GR 32	PY 013	—	●	●	—	—	—	●	●	●	—	—	●
HOSTAFINE YELLOW SP-HR 32	PY 083	—	●	●	—	—	○	●	●	●	—	—	●
COLANYL YELLOW HR 132	PY 083	—	○	○	—	—	—	●	—	—	—	—	●
HOSTAFINE RED SP-HF3S 32	PR 188	—	●	●	—	—	—	○	●	●	—	—	●
COLANYL RED FRLL 131	PR 009	—	○	○	—	—	—	●	—	—	—	—	●
VISCOFIL RED AGN	PR 002	—	○	○	—	—	—	○	—	—	—	—	●
FLEXONYL RED SP-FGR	PR 112	—	●	●	—	—	—	●	—	—	—	—	●
HOSTAFINE RED SP-FGR 32	PR 112	—	●	●	—	—	—	●	●	●	—	—	●
COLANYL RED FGR 131	PR 112	—	○	○	—	—	—	●	—	—	—	—	●
COLANYL RED FGRG 130	PR 112	—	○	○	—	—	—	●	—	—	—	—	●
HOSTAFINE RED SP-P2GL 32	PR 179	—	●	●	—	—	—	●	●	●	—	—	●
COLANYL RED D3GD 532	PR 254	—	○	○	—	—	—	●	—	—	—	—	●
COSMENYL CARMINE OC100	PR 005	—	●	●	—	—	—	●	—	—	—	—	●
FLEXONYL CARMINE SP-FBB	PR 146	—	●	●	—	—	—	●	—	—	—	—	●
COLANYL RED E3B 130	PV 019	—	○	○	—	—	—	●	—	—	—	—	●
HOSTAJET MAGENTA E-PT	PR 122	—	○	○	—	—	—	●	●	●	—	—	●
HOSTAFINE RUBINE SP-F6B 32	PR 184	—	●	●	—	—	—	●	●	●	—	—	●
COSMENYL VIOLET 100	PV 023	—	●	●	—	—	—	●	—	—	—	—	●
COLANYL VIOLET RL 32	PV 023	—	○	○	—	—	—	●	—	—	—	—	●
COSMENYL BLUE BLS30 GRAN.	PB 15:1	—	●	●	—	—	●	●	—	—	—	—	●
COSMENYL BLUE OC100	PB 15:1	—	●	●	—	—	—	●	—	—	—	—	●
HOSTAFINE BLUE SP-B2G 32	PB 15:3	—	●	●	—	—	—	●	●	●	—	—	●
COLANYL BLUE B2G 131	PB 15:3	—	○	○	—	—	—	●	—	—	—	—	●
COSMENYL GREEN OC100	PG 007	—	●	●	—	—	—	●	—	—	—	—	●
HOSTAFINE GREEN SP-GN 32	PG 007	—	●	●	—	—	—	●	●	●	—	—	●
COLANYL GREEN GG 131	PG 007	—	○	○	—	—	—	●	—	—	—	—	●
COSMENYL BLACK 100	PBI 007	—	●	●	—	—	—	●	—	—	—	—	●
HOSTAFINE BLACK SP-T32	PBI 007	—	●	●	—	—	—	●	●	●	—	—	●
HOSTAFINE BLACK TS 30	PBI 007	—	○	○	—	—	—	●	●	●	—	—	●
COLANYL BLACK N 131	PBI 007	—	○	○	—	—	—	●	—	—	—	—	●
FLEXONYL WHITE RL 130	PW 006	—	○	○	—	—	—	○	○	○	—	—	●
COSMENYL OXIDE YELLOW 100	PY 042	—	●	●	—	—	—	●	—	—	—	—	●
COLANYL OXIDE RED B132	PR 101	—	○	○	—	—	—	●	—	—	—	—	—
COLANYL OXIDE BLACK B130	PBI 011	—	○	○	—	—	—	●	—	—	—	—	—

6.3

PIGMENT PREPARATIONS FOR SOLVENT-BASED STATIONERY APPLICATIONS

Hostanol HW30 is a range of solid pigment preparations based on polyvinyl butyral as carrier material. It is suitable for use in alcohol containing systems, esters and glycols can be used as additional solvents. Main fields of application are highly transparent solvent-based wood stains and marker inks. Furthermore, they can be used in gravure and flexographic printing inks based on nitrocellulose and coatings aluminum foils.

PRODUCT NAME	COLOUR INDEX	WRITING INKS	MARKER INKS		
		Gel pen inks	Permanent marker	Whiteboard marker	Stamping ink
HOSTANOL HW 30 YELLOW HR	PY 038	—	●	●	●
HOSTANOL HW 30 RED F5RK	PR 170	—	●	●	●
HOSTANOL HW 30 BLUE B2G	PB 15:3	—	●	●	●
HOSTANOL HW 30 BLACK R	PBI 007	●	●	●	●

6.4

WATER SOLUBLE DYES

PRODUCT NAME	COLOUR INDEX	ART, CREATIVE AND SCHOOL MATERIAL						WRITING INKS				MARKER INKS	
		Oil paints	Aquarelle	Acrylic paints	Pencil	Wax crayon	Chalk	Fountain pen ink	Gel pen ink	Felt tip pen ink (roller ball, fine liner, needle ball)	Pigmented felt tip pen ink (fine liner, durable drawing)	Highlighter ink	Stamping ink
DUASYN YELLOW 3GF-SF LIQ.	DY 132	—	—	—	—	—	—	●	●	●	—	—	●
SANOLIN QUINOLINE YELLOW 70	FY 013/AY 003	—	—	—	○	—	—	—	●	●	—	—	●
SANOLIN TARTRAZINE X90	FY 004/AY 023	—	—	—	○	—	—	—	●	●	—	—	●
DUASYN ACID YELLOW XX-SF LIQ.	AY 023	—	—	—	—	—	—	●	●	●	—	—	●
SANOLIN ORANGE RGL90	FY 003	—	—	—	○	—	—	—	●	●	—	—	●
SANOLIN PONCEAU 4RC 82	FY 007/AR 018	—	—	—	○	—	—	—	●	●	—	—	●
DUASYN BRILLIANT RED F3B-SF LIQ.	RR 180	—	—	—	—	—	—	●	●	●	—	—	●
SANOLIN RED N-6B	AR 249	—	—	—	○	—	—	—	●	●	—	—	●
SANOLIN RHODAMINE B02	AR 052	—	—	—	○	—	—	—	●	●	—	●	●
SANOLIN BLUE EHRL LIQ.	AB 182	—	—	—	—	—	—	—	●	●	—	—	●
DUASYN INK BLUE SLK	AB 093	—	—	—	○	—	—	●	●	●	—	—	●
SANOLIN PATENTBLUE V8501	FB 005:2	—	—	—	—	—	—	—	●	●	—	—	●
SANOLIN BLUE AE90	FB 002	—	—	—	○	—	—	—	●	●	—	—	●
DUASYN ACID BLUE AE-SF30 LIQ.	AB 009	—	—	—	—	—	—	●	●	●	—	●	●
DUASYN ACID BLUE AE03	AB 009	—	—	—	—	—	—	—	●	●	—	●	●
DUASYNJET CYAN FRL-SF LIQ.	DB 199	—	—	—	—	—	—	●	●	●	—	—	●
SANOLIN TURQUOISE BLUE FBL	DB 199	—	—	—	—	—	—	—	●	●	—	—	●
SANOLIN LAVE YELLOW GX LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE RED B LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE PINK B LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE VIOLET B LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE BLUE A LIQ	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE BLUE R LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE BLUE T LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●
SANOLIN LAVE GREEN G LIQ.	-	—	—	●	—	—	—	—	—	●	—	—	●

6.5

SOLVENT SOLUBLE DYES

Savinyl powder dyes are solvent soluble metal complex dyes, with excellent solubilities in polar organic solvents like alcohols, ketones and glycol ethers, as well as good overall fastness properties. They are suitable for coloration of writing inks, wood stains, leather finish, flexographic and gravure inks and paints based on polar solvents.

PRODUCT NAME	COLOUR INDEX	MARKER INKS	
		Permanent marker ink	Stamping ink
SAVINYL YELLOW 2GLS 01	SY 079	●	●
SAVINYL YELLOW RLS	SY 083:1	●	●
SAVINYL YELLOW RLSN	SY 083	●	●
SAVINYL YELLOW 2RLS	SY 062	●	●
SAVINL ORANGE RLS	SO 041	●	●
SAVINYL ORANGE RLSE	SO 062	●	●
SAVINYL FIRE RED 3GLS	SR 124	●	●
SAVINYL RED 3BLS	SR 091	●	●
SAVINYL PINKS 6BLS	SR 127	●	●
SAVINYL BLUE RS	SB 045	●	●
SAVINYL BLUE GLS	SB 044	●	●
SAVINYL GREEN 2GLS01	Mix	●	●
SAVINYL BROWN GLS	Mix	●	●
SAVINYL BLACK RLSN 01	SBI 027	●	●
DUASYN BLACK A-RG	SBI 027	●	●

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