















# PRODUCTS FOR COSMETICS AND HEALTH & BEAUTY APPLICATIONS

**DGS** Series

Colorants for water, oil and solvent based systems

DermaGlo<sup>TM</sup> DGS colorants are designed for use in a wide range of formulations, from water-based and oil-based to the more demanding solvent-based systems. They perform well in all types of personal care products, from lip gloss and lip sticks to lotions and soaps. DGS products employ a revolutionary new thermosetting polymer component that is resistant to solvents commonly employed in nail enamels and hair sprays. Further, as a result of the cross-linked nature of these materials, formulations can be processed at higher temperatures without adverse effects.

Sales Code	Color	D&C Colorants (C.I. Number)	Lip**	Eye**	External**
DGS-11	Aurora Pink <sup>®</sup>	Red 28 (C.I. 45410), Red 22 (C.I. 45380)	Yes	No	Yes
DGS-13	Rocket Red <sup>™</sup>	Yellow 10 (C.I. 47005), Red 28 (C.I. 45410), Red 22 (C.I. 45380)	Yes	No	Yes
DGS-15	Blaze Orange <sup>TM</sup>	Yellow 10 (C.I. 47005), Red 28 (C.I. 45410), Red 22 (C.I. 45380)	Yes	No	Yes
DGS-17	Saturn Yellow®*	Yellow 11 (C.I. 47000)	No	No	Yes
DGS-19	Horizon Blue <sup>TM</sup>	Ultramarine Blue (C.I. 77007)	No	Yes	Yes
DGS-20	Purple*	Violet 2 Ext. (C.I. 60730), Red 28 (C.I. 45410)	No	No	Yes
DGS-21	Corona Magenta <sup>™</sup>	Red 28 (C.I. 45410), Red 22 (C.I. 45380)	Yes	No	Yes
DGS-37	Blue*	Blue 1 (C.I. 42090)	Yes	Yes	Yes
DGS-531	G/S Yellow*	Yellow 10 (C.I. 47005)	Yes	No	Yes

\* Non-Fluorescent Colors (Not UV/Blacklight responsive)

\*\*Provided regulatory information based on US FDA regulations

INCI Name: Bis(Glycidoxyphenyl)propane / Bisaminomethyl-norbornane copolymer, Aluminum Hydroxide, D&C Colorant(s)

### **Typical Physical Properties:**

Density:	1.1g/cm <sup>3</sup>
Bulk Density:	0.25g/cm3 (15.6 lbs./ft <sup>3</sup> )
Particle Size:	2.5 microns (average)
Oil Absorption:	38 lbs. of oil/100 lbs. of pigment





## DGS-00 Fluorescent Illuminator

### Optical brightener additive for cosmetics

Combining an optical brightener with DayGlo's DermaGlo polymer technology creates this exciting optical effect additive. This unique product provides the fluorescent effects of an optical brightener without the staining or dispersion problems often associated with brighteners. DGS-00 can be used to enhance brightness of formulations, as a soft focus effect filler or simply to add fluorescence to an existing formulation.

### **INCI Name:**

Bis(glycidoxyphenyl)propane / Bisaminomethylnorbornane Copolymer, Fluorescent Brightener 230, Aluminum Hydroxide

#### **Typical Physical Properties:**

Density:	$1.1 \text{g/cm}^3$
Bulk Density:	0.25g/cm3 (15.6 lbs./ft <sup>3</sup> )
Particle Size:	2.99 microns (average)
Oil Absorption:	38 lbs. of oil/100 lbs. of pigment
Refractive Index:	1.56
Product Color:	Off white powder

For information or to request samples please contact:

#### **Technical Contact:**

Tom DiPietro Day-Glo Color Corp. 4515 St. Clair Avenue Cleveland, OH 44103 tel. (216) 391-7070 tdipietro@dayglo.com

# Marketing Contact:

Chris Newbacher Day-Glo Color Corp. 4515 St. Clair Avenue Cleveland, OH 44103 tel. (216) 391-7070 cnewbacher@dayglo.com



Day-Glo Color Corp. • 4515 St. Clair Avenue • Cleveland, OH 44103 • USA • (216) 391-7070 • www.dayglo.com

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### SAMPLE FORMULATIONS

These are simply recommended starting formulations. Customers should conduct their own stability testing to insure the product's long-term stability.



### Lip Stick —

Ingredient	Quantity	Supplier	INCI Name
Ceraphyl 368	3.00	ISP	Ethylhexyl Palmitate
Castor Oil USP	46.60	Acme-Hardesty	Ricinus Communis
Prisorine 2039	13.25	Uniqema	Isostearyl Isostearate
Ceraphyl 55	6.75	ISP	Tridecyl Neopentanoate
Mineral Oil	1.40	Penreco	Mineral Oil
Candelilla Wax	6.75	Strahl & Pitsch	Euphorbia Cerifera
White Beeswax	4.00	Strahl & Pitsch	Cera Alba
Ozokerite Wax	3.00	Strahl & Pitsch	Ozokerite
Carnuba Wax	1.00	Strahl & Pitsch	Copernica Cerifera
Purester 40	4.00	Strahl & Pitsch	Stearyl Benenate
LiquiPar Oil	0.25	ISP	Isopropyl, Isobutyl, Butyl Parabens
DermaGlo DGS Pigment	10.00	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant

Procedure: Mix all components together and heat until a homogenous solution forms. Cool to 45°C and add pigment.

Lip Gloss			
Ingredient	Quantity	Supplier	INCI Name
Versagel ME750	81.25	Penreco	Hydrogenated Polyisobutene & Ethylene/Propylene/Styrene Copolymer & Butylene/Ethylene/Styrene Copolymer
Ceraphyl 368	10.00	ISP	Octyl Palmitate
Ceraphyl 55	5.00	ISP	Tridecyl Neopentanoate
Prisorine 2039	3.00	Uniqema	Isostearyl Isostearate
LiquiPar Oil	0.25	ISP	Isopropyl, Isobutyl, Butyl Parabens
DermaGlo DGS Pigment	0.50	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant

Procedure: Mix all ingredients and heat slowly to 70-75°C with stirring until the mixture is uniform. Cool to 45°C and add flavor and color.

L	ip Balm 🔴 🚽			
	Ingredient	Quantity	Supplier	INCI Name
	Crystalpet W	44.00	Crystal IncPMC	Pertolatum
	Ceraphyl 368	20.00	ISP	2-Ethylhexyl Palmitate
	Beeswax	10.00	Strahl & Pitsch	Cera Alba
	Ozokerite Wax	8.70	Strahl & Pitsch	Ozokerite
	Candellia Wax	6.00	Strahl & Pitsch	Euphorpia Cerifera
	Light Mineral Oil	3.05	Penreco	Mineral Oil
	Uvinul M-40	2.00	BASF	Benzophenone-3
	Aerosil 200	5.00	Degussa	Silica
	DermaGlo DGS Pigment	1.00	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant
	Phenonip	0.25	Clariant	Phenoxyethanol, Methyl, Butyl, Propyl, Ethylparaben

**Procudure:** Combine Petrolatum, waxes, ceraphyl, mineral oil and heat to 65° C. Mix until homogenous. Add Uvinul and continue mixing. Using a high-speed disperser, add silica slowly, then add pigment and mix until homogenous. Pour into tubes.

### SAMPLE FORMULATIONS

These are simply recommended starting formulations. Customers should conduct their own stability testing to insure the product's long-term stability.



# Temporary Hair Color, Aerosol Spray

Ingredient	Quantity	Supplier	INCI Name
D4# Refine Pharmaceutical Glaze, NF	14.80	Mantrose-Haeuser Co.	Shellac / Alcohol, Denatured
Glycerin	1.00	Acme-Hardesty	Glycerin
DC-193	0.55	Dow Corning	PEG-12 Dimethicone
Triethanolamine	1.56	U.S. Chemicals Inc.	Triethanolamine (TEA)
Bentone 27V	2.07	<b>Elementis Specialties</b>	Stearalkonium Hectorite
Ethyl Alcohol	12.50		Alcohol, Denatured
HO M60 Milled	6.20	Mississippi Lime Co.	Calcium Carbonate
DermaGlo DGS Pigment	18.60	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant
Ethyl Alcohol	42.72		Alcohol, Denatured

**Procedure:** Combine Shellac solution, Glycerin, DC-193 and TEA. Mix using high-peed disperser until homogenous. Slowly add Bentone 27, calcium carbonate and DGS pigment. Shear mixture at high speed for 15 minutes to insure 7 oz. (196 g) can contains 150 g paint mixture 46 g Dymel 152a propellant.

Face Paint			
Ingredient	Quantity	Supplier	INCI Name
Solution A			
Deionized Water	99.50		Water
Keltrol CG	0.50	CP Kelco	Xanthan Gum
Face Paint			
Solution A	63.25		
Glycerin	10.00	Acme-Hardestry	Glycerin
PVP K-15	2.50	ISP	Polyvinylpyrrolidinone
HO M60, Milled	5.00	Mississippi Lime Co.	Calcium Carbonate
Zeosyl 200	3.00	J.M. Huber	Aluminosilicate
Mirapol Surf-S110	0.75	Rhodia	Cocamidopropylhydroxy Sultane
DermaGlo DGS Pigment	15.00	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant
Phenonip	0.50	Clariant	Phenoxyethanol, propylparaben, butylparaben, methylparaben, ethylparaben

#### **Procedure:**

Solution A: Slowly feed xanthan gum into deionized water under agitation and mix vigorously until xanthan gum dissolves.

**Face Paint:** Combine Solution A, PVP, glycerin and Mirapol and mix with cowels mixer until clear solution is formed. Under agitation, disperse zeosyl, calcium carbonate and pigment until smooth paint is formed. Add Phenonip.

### SAMPLE FORMULATIONS

These are simply recommended starting formulations. Customers should conduct their own stability testing to insure the product's long-term stability.



### Hand Sanitizer

Ingredient	Quantity	Supplier	INCI Name
Water	37.00		Water
Carbopol ETD 2020	0.27	Lubrizol	Acrylates/C10-30 Alkyl Acrylate Crosspolymer
Triethanolamine	0.60	U.S. Chemicals Inc.	Triethanolamine (TEA)
DermaGlo DGS Pigment	0.13	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant
Ethyl Alcohol	62.00		Alcohol, Denatured

**Procedure:** Dissolve Carbopol into the water with a high speed mixer, adjust pH to approx. 7.5 with TEA and add DGS pigment. Allow to mix for few minutes, then slowly add alcohol. Add fragrance as desired.

Nail Lacquer					
Ingredient	Quantity	Supplier	INCI Name		
Nitrocellulose Lacquer	88.00	Various	Formulation Dependent		
DermaGlo DGS Pigment	10.00	Day-Glo Color Corp.	Bis(Glycidoxyphenyl)propane / Bisaminoethylnorbornane Copolymer, Aluminum Hydroxide, D&C Colorant		
Anti-Settling Compound	1.00	Various	Formulation Dependent		
Soft-Tex White C47-7756	1.00	Sun Chemical	Titanium Dioxide		

Note: DGS Pigment at 8-10% will maximize gloss & color. Above 11% will begin to produce a matte finish.





Day-Glo Color Corp. 4515 St. Clair Avenue Cleveland, OH 44103 USA (216) 391-7070 www.dayglo.com

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