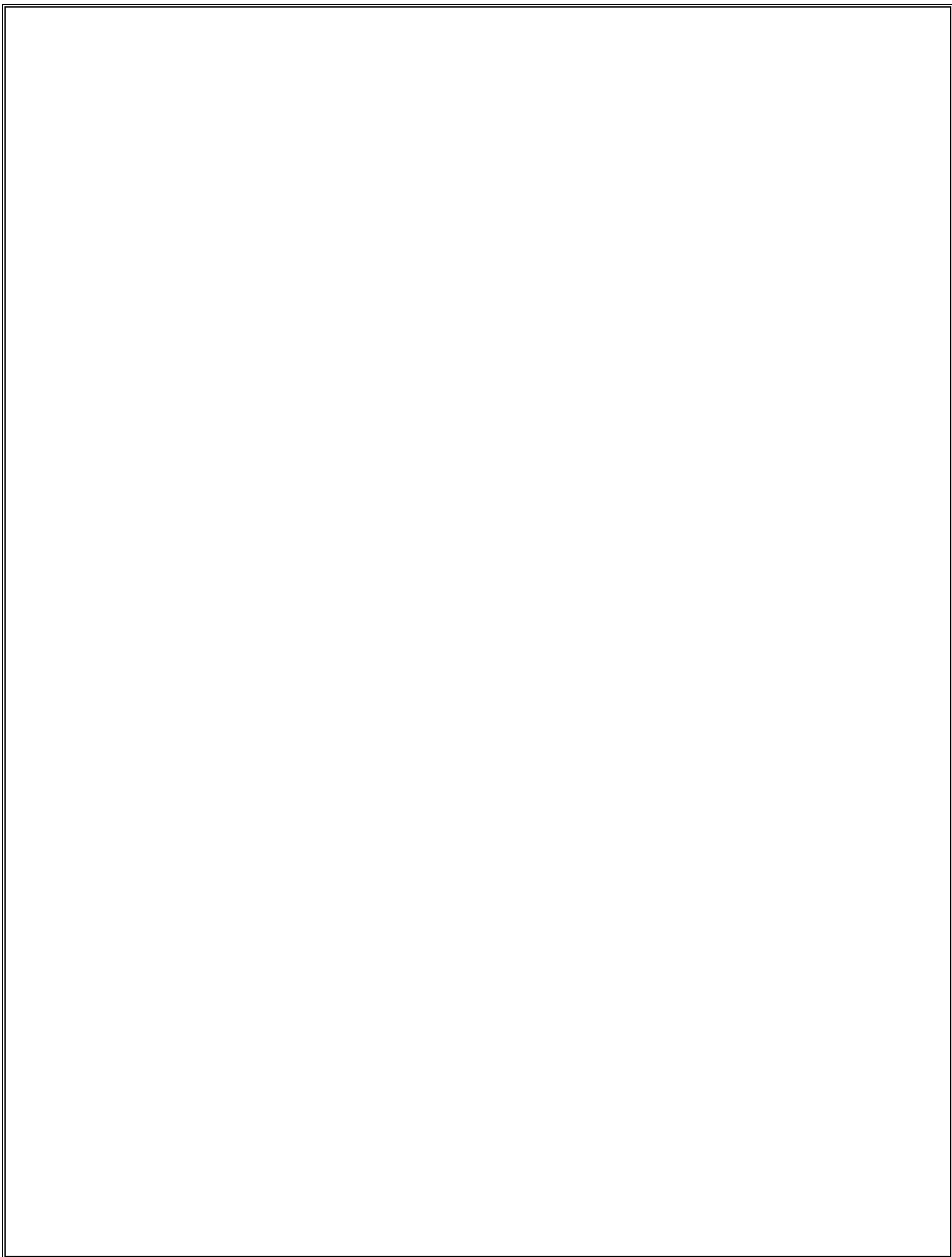




Sunset Maple





Working Together for Quality

515 Consumers Road, 7th Floor,
Toronto, Ontario, Canada
M2J 4Z2

Phone: (416) 791-4200

Fax: (416) 497-9528

www.dcc.ca

Sunset Maple

Positioning

Sunset Maple is a high performance magenta pigment developed specifically for ink jet applications. This product offers a clean, transparent magenta shade red with excellent lightfastness and weatherfastness. Sunset Maple has small primary and secondary particle size, which provide excellent dispersibility and inkjet printability. This product is very attractive for inkjet applications because it provides significantly improved durability and water resistance versus dyes.

Features

Benefits

• Clean magenta shade red	• Perfect for 3 or 6 colour printing
• Small primary particle size	• Excellent inkjet printability
• Small secondary particle size	• Excellent dispersibility
• Excellent lightfastness	• Enhanced durability for external use
• Transparent	• Good optical density
• Pigment particles are insoluble	• More durable and water resistant than dyes

Primary Applications

- Ink Jet – water and solvent based



DCC Laboratory Work

Sunset Maple was tested in a Fade-o-meter. The table below shows the results.

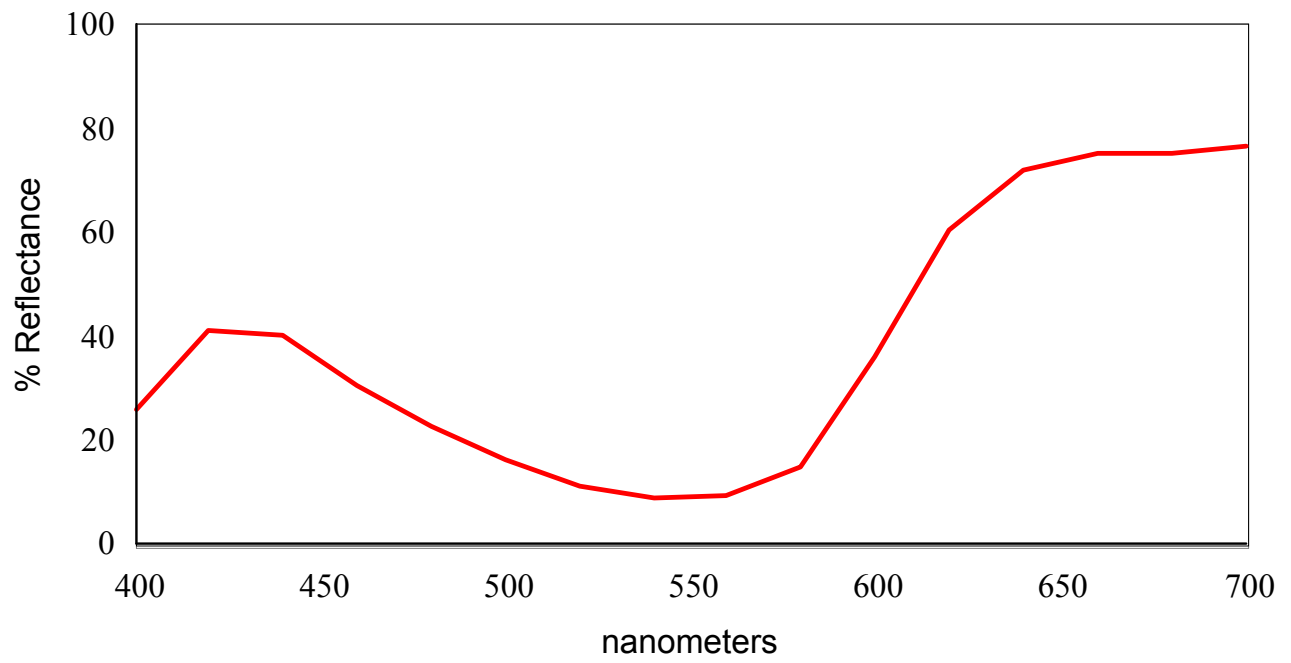
DCC Grade	144 Hour Exposure	288 Hour Exposure
Sunset Maple	ΔE^* 6.10	ΔE^* 8.37

The weatherfastness results of DCC Sunset Maple are reported below after 500 and 1,000 hours of weather-o-meter exposure. Test Method and Vehicle System: TM 1207(M) - 2% Pigmentation in Acrylic Melamine Vehicle

Tested Samples	Weather-o-meter Exposure (ΔE^*)								
	Control - Zero Hours			500 Hours			1,000 Hours		
	Colour	Gloss		Colour	Gloss		Colour	Gloss	
		20°	60°		20°	60°		20°	60°
DCC Sunset Maple (Masstone)	control	87	93	very slightly darkened, comparable gloss, ΔE^* 1.01	84	92	slightly darkened, very slightly flat, ΔE^* 1.41	75	88
DCC Sunset Maple (Tint)	control	85	93	slightly faded/ slightly yellow hue, comparable gloss, ΔE^* 2.79	83	92	faded/ slightly yellow hue, very slightly flat, ΔE^* 3.43	73	87

Reflectance Curve

Sunset Maple





SPECIFICATIONS AND PROPERTIES

DCC SUNSET MAPLE

Chemical Type -----	Proprietary
Colour Index Name -----	Proprietary
CAS No. -----	Proprietary
Physical Form -----	Bluish Red Powder

SPECIFICATIONS:

	<u>LIMITS</u>	<u>TEST METHODS</u>
Print-tone Shade -----	Max. Delta E* 2.0 of Std. -	DCC TM 2546 (1)
Tint Strength (apparent) --	+ 5% of Std. -----	DCC TM 2546 (1)

GENERAL DATA (TYPICAL VALUES) :

Specific Gravity -----	1.33	-----	ASTM D-153-84 Method C
Oil Absorption -----	53	-----	ASTM D-281-84 (Fasig Method)
Moisture -----	1.0% max.	---	ASTM D-280-81 Method A

(1) Test Methods available from DCC on request.

PROPERTIES:

BLEED RESISTANCE

Ethyl Acetate -----	Very Good
Ethyl Alcohol -----	Very Good
Cellosolve -----	Very Good
D.B.P. -----	Very Good
Glycol -----	Very Good
Linseed Oil -----	Excellent
MEK -----	Very Good
Mineral Spirits -----	Excellent
Water (cold) -----	Very Good
Wax (Paraffin) -----	Excellent
Xylene -----	Very Good

HEAT RESISTANCE

120°C/45 mins. - Ink ---- Excellent

LIGHTFASTNESS - INK (72 hr. F/O)

Full Strength -----	Good
Ti ₂ O ₃ Tint (1:10) -----	Very Good

WEATHERFASTNESS PAINT (W/O or Florida)

Full Strength -----	N/A
Ti ₂ O ₃ Tint (1:10) -----	N/A

F/O = Fade-o-meter W/O = Weather-o-meter

CHEMICAL RESISTANCE

Dilute Acid -----	Excellent
Dilute Alkali -----	Excellent
Soap -----	Very Good

LITHOGRAPHIC PERFORMANCE

Aqueous -----	Very Good
Alcoholic -----	Very Good

SPECIAL COMMENTS:

Shade & strength determinations are made with the aid of a MacBeth Colour Computer, under the following conditions: CIELAB, 10 degree observer, D65 light source, UV & gloss included.

MATERIAL SAFETY DATA SHEET



TOXIC SUBSTANCES CONTROL ACT (TSCA) AND CANADIAN DOMESTIC SUBSTANCE LIST/WHMIS CLASSIFICATION

SUBJECT PIGMENT IS REGISTERED

EMERGENCY TELEPHONE NO. (613) 996-6666

NON-CONTROLLED

SECTION 1 -- PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER Sunset Maple			
PRODUCT USE Colouration of Ink Jet Inks		CAS. NO. Proprietary	
MANUFACTURER'S NAME Dominion Colour Corporation		SUPPLIER'S NAME Dominion Colour Corporation	
STREET ADDRESS 515 Consumers Road, 7 th Floor		STREET ADDRESS 515 Consumers Road, 7 th Floor	
CITY Toronto	PROVINCE Ontario	CITY Toronto	PROVINCE Ontario
POSTAL CODE M2J 4Z2	TELEPHONE NO. (416) 791-4200	POSTAL CODE M2J 4Z2	TELEPHONE NO. (416) 791-4200

SECTION 2 -- HAZARDOUS INGREDIENTS -- WHMIS CANADA

HAZARDOUS INGREDIENTS	%	CAS NUMBER	LD ₅₀ OF INGREDIENT (SPECIFY SPECIES & ROUTE)	LC ₅₀ OF INGREDIENT (SPECIFIC SPECIES)
None Present				

SECTION 3 -- PHYSICAL DATA

PHYSICAL STATE Solid	ODOUR AND APPEARANCE Odourless Bluish Red Powder		ODOUR THRESHOLD (ppm) Not Applicable	
VAPOUR PRESSURE (mm Hg) Not Applicable	VAPOUR DENSITY (AIR = 1) Not Applicable	EVAPORATION RATE Not Applicable	BOILING POINT (°C) Not Applicable	FREEZING POINT (°C) Not Applicable
pH Not Applicable	SPECIFIC GRAVITY Not Available	COEFF. WATER/OIL DIST. Not Available		

SECTION 4 -- FIRE AND EXPLOSION DATA

FLAMMABILITY IF YES, UNDER WHICH CONDITIONS? YES [X] NO [] Exposure to high temperatures or ignition source.		
MEANS OF EXTINCTION Use water fog, foam or dry chemical extinguishing media.		
FLASHPOINT (°C) AND METHOD Not Applicable	UPPER FLAMMABLE LIMIT (% BY VOLUME) Not Available	LOWER FLAMMABLE LIMIT (% BY VOLUME) Not Available
AUTOIGNITION TEMPERATURE (°C) Not available	HAZARDOUS COMBUSTION PRODUCTS Oxides of Nitrogen, Carbon Dioxide, Carbon Monoxide, Organic Vapours	
EXPLOSION DATA Not Applicable	SENSITIVITY TO IMPACT Not Applicable	
SENSITIVITY TO AND POTENTIAL FOR STATIC DISCHARGE Listed product(s) is/are not sensitive to static discharge. There is potential for a build up of a static charge in packaging however, during transit, handling and charging of pigment into vessels. Accordingly, appropriate safety procedures should be followed and grounding of equipment is recommended.		

PRODUCT Identifier
Sunset Maple

SECTION 5 -- REACTIVITY DATA

CHEMICAL STABILITY IF NO, UNDER WHICH CONDITIONS?
YES [X] NO []

INCOMPATIBILITY WITH OTHER SUBSTANCES IF SO, WHICH ONES?
YES [] NO [X]

REACTIVITY, AND UNDER WHAT CONDITIONS
Not Applicable

HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of Nitrogen and Carbon and Organic Vapours

SECTION 6 -- TOXICOLOGICAL PROPERTIES

ACUTE TOXICITY

LD₅₀ oral (rat) > 5000 mg/kg
LC₅₀ - Not Available

EXPOSURE LIMITS

IRRITANCY OF PRODUCT

SENSITIZATION TO PRODUCT

CARCINOGENICITY

T.L.V. - 10 mg/m³ as nuisance dust

Essentially Non-irritating

Essentially Non-sensitizing

Not Applicable

TERATOGENICITY

REPRODUCTIVE TOXICITY

MUTAGENICITY

SYNERGISTIC PRODUCTS

Not Applicable

Not Applicable

Non-Mutagenic

Not Applicable

SECTION 7 -- PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES (SPECIFY)

RESPIRATOR (SPECIFY)

EYE (SPECIFY)

PVC or Neoprene Rubber

Nuisance Dust Respirator

Safety Glasses with Side Shields

FOOTWEAR (SPECIFY)

CLOTHING (SPECIFY)

OTHER (SPECIFY)

No Special Requirements

No Special Requirements

ENGINEERING CONTROLS (SPECIFY, EG. VENTILATION, ENCLOSED PROCESS)

Good local exhaust ventilation is desirable to reduce dusting.

LEAK AND SPILL PROCEDURE

Clean up dry using a vacuum or sweep up using wet sawdust.

WASTE DISPOSAL

In accordance with local regulations.

HANDLING PROCEDURES AND EQUIPMENT

Maintain good housekeeping to avoid dust build-up.

STORAGE REQUIREMENTS

Store under clean, dry conditions.

SPECIAL SHIPPING INFORMATION

No special requirements.

PRODUCT Sunset Maple
IDENTIFIER

SECTION 8 -- FIRST AID MEASURES

SPECIFIC MEASURES

EYES - Flush with water to remove dust particles.

SKIN - Wash with soap and water.

INGESTION - No special treatment required.

INHALATION - Remove to fresh air.

SECTION 9 -- PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT,
ETC.)

Technical Department

PHONE NUMBER

(416) 791-4200

DATE

9th March 2004

SECTION 10 -- HMIS RATING

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	*

* Rating to be supplied by user based on use conditions.

SECTION 11 -- RIGHT-TO-KNOW ACT (S.A.R.A. SECTION 313) -- U.S.A.

No reporting requirements for this product.