

MSDS# XG

FUJIFILM SERICOL USA, INC.  
 20 WEST 14TH AVENUE  
 NORTH KANSAS CITY, MISSOURI 64116  
 (816) 474-0650

\*\*\*HMIS RATINGS\*\*\*  
 HEALTH-----2  
 FLAMMABILITY-----2  
 REACTIVITY-----0

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 \* MATERIAL SAFETY DATA SHEET \*  
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For screen printing inks as required under 29 CFR 1910.1200(g).

EMERGENCY PHONE NUMBER PREPARER: CRAIG POGGENPOHL DATE OF PREPARATION  
 (816) 587-8178 EHS MANAGER REVISED 06/13/08/CP

REVISIONS: SECTION I.

SECTION I--PRODUCT IDENTIFICATION

PRODUCT CODE : XG-064 XG-066 XG-101 XG-111 XG-114 XG-121 XG-123  
 XG-127 XG-131 XG-141 XG-151 XG-155 XG-160 XG-164  
 XG-165 XG-170 XG-175 XG-180 XG-185 XG-190 XG-200  
 XG-205 XG-210 XG-221 XG-215 XG-230 XG-240 XG-250  
 XG-255 XG-260 XG-270 XG-280 XG-290 XG-295 XG-301  
 XG-311 XG-312 XG-325 XG-600 XG-610 XG-620 XG-630  
 XG-640 XG-650 XG-660 XG-670 XG-HTB XG-HTK XG-HTR  
 XG-HTX XG-HTY XG-HTBT XG-HTKT XG-HTRT XG-HTYT  
 XG-MX/OP XG-SB XG-TW  
 LABEL IDENTITY: PLASTIJET XG SERIES  
 PRODUCT CLASS : SOLVENT EVAPORATIVE SCREEN INK

SECTION II--HAZARDOUS INGREDIENTS

COMMON NAME (CAS REGISTRY #)	PERCENT BY WEIGHT	RECOMMENDED EXPOSURE LIMITS (PPM) <sup>1</sup>		VAPOR PRESSURE (mm Hg @ 20 C) <sup>1</sup>
		ACGIH TLV-TWA	OSHA PEL	
DIACETONE ALCOHOL (00123-42-2)	! 5-10	50	50	0.8
CYCLOHEXANONE (00108-94-1)	! 5-10	20 <sup>3</sup>	50	3.4
ETHYL 3-ETHOXYPROPIONATE (00763-69-9)	35-40	50 <sup>2</sup>	NE	0.7
SOLVENT NAPHTHA LT AROM! (64742-95-6)	! 3-7	50 <sup>2</sup>	NE	2.7
1,2,4-TRIMETHYLBENZENE (00095-63-6)	! <1.5	25	25	2.7
TITANIUM DIOXIDE <sup>4</sup> (13463-67-7)	! 33	10 mg/m <sup>3</sup>	15 mg/m <sup>3</sup> (total dust)	
CARBON BLACK <sup>5</sup> (1333-86-4)	6	! 3.5mg/m <sup>3</sup>	3.5mg/m <sup>3</sup> !	NA
NA - NOT APPLICABLE	NE - NOT ESTABLISHED		UKN - UNKNOWN	

<sup>1</sup> UNLESS NOTED OTHERWISE, THE UNITS ARE PPM AND mm Hg @ 20 C, RESPECTIVELY, FOR EXPOSURE LIMITS AND VAPOR PRESSURES.

<sup>2</sup> RECOMMENDED BY MANUFACTURER.

<sup>3</sup> SKIN ABSORPTION MAY CONTRIBUTE TO THE OVERALL ABSORPTION OF THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV AND/OR PEL ARE NOT INVALIDATED.

<sup>4</sup> INKS CONTAINING TITANIUM DIOXIDE: XG-311 XG-TW XG-312.

<sup>5</sup> INKS CONTAINING CARBON BLACK: XG-301 XG-SB XG-HTK XG-HTKT.

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SECTION III -- PHYSICAL AND CHEMICAL CHARACTERISTICS  
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BOILING RANGE: 293-342 DEG F. @ 760 mmHg.  
DENSITY (LB./GAL): 8.4-11.7.  
VOC CONTENT OF MATERIAL: 43-64% BY WEIGHT OR 629-656 GRAMS PER LITER.  
VOC CONTENT OF COATING LESS WATER AND LESS EXEMPT SOLVENTS: 600-660 G/L.  
VAPOR DENSITY: HEAVIER THAN AIR.  
EVAPORATION RATE: SLOWER THAN DIETHYL ETHER.  
APPEARANCE AND ODOR: MOBILE LIQUID, VARIOUS COLORS, SWEET ETHER-LIKE ODOR.

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SECTION IV -- PHYSICAL HAZARD DATA  
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FLAMMABILITY CLASSIFICATIONS: OSHA: CLASS II DOT: COMBUSTIBLE LIQUID  
CLOSED CUP FLASH POINT: >105 F. EXPLOSIVE LIMITS: UNKNOWN

EXTINGUISHING MEDIA: "CLASS B" FIRE EXTINGUISHERS USED IN ACCORDANCE  
WITH MANUFACTURERS INSTRUCTIONS.

"ALCOHOL" FOAM CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE OR EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED.  
ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAMES.  
CLOSED CONTAINERS MAY RUPTURE OR EXPLODE WHEN EXPOSED TO EXTREME HEAT.  
APPLICATION TO HOT SURFACES REQUIRES SPECIAL PRECAUTIONS.  
DURING EMERGENCY CONDITIONS, OVEREXPOSURE TO DECOMPOSITION PRODUCTS MAY  
CONSTITUTE A HEALTH HAZARD. SYMPTOMS MAY NOT BE IMMEDIATELY APPARENT.  
OBTAIN MEDICAL ATTENTION.

SPECIAL FIREFIGHTING PROCEDURES: FULL PROTECTIVE EQUIPMENT IS  
RECOMMENDED TO PROTECT FIRE FIGHTERS FROM ANY HAZARDOUS DECOMPOSITION  
PRODUCTS.  
WATER MAY BE UNSUITABLE FOR USE ON BURNING LIQUIDS. IF WATER MUST BE  
USED, FOG NOZZLES ARE HIGHLY PREFERABLE. WATER MAY BE USED TO COOL  
CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTO-  
IGNITION, EXPLOSION, OR RUPTURE WHEN EXPOSED TO EXTREME HEAT.

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SECTION V -- EMERGENCY AND FIRST-AID PROCEDURES  
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PRIMARY ROUTES OF ENTRY ARE DERMAL AND INHALATION.

FOR SWALLOWING: DRINK TWO GLASSES OF WATER TO DILUTE. DO NOT INDUCE  
VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CONSULT  
PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. TREAT SYMPTOMATICALLY. BE  
PREPARED TO PROVIDE THE ATTENDING PHYSICIAN WITH A COPY OF THIS DOCUMENT.

FOR SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. WASH THOROUGHLY WITH  
MILD SOAP AND WARM WATER. CONSULT A PHYSICIAN IF THERE IS ANY  
PERSISTING IRRITATION.

FOR INHALATION: REMOVE VICTIM TO A WELL VENTILATED AREA. GIVE OXYGEN  
OR ARTIFICIAL RESPIRATION AS REQUIRED. TREAT SYMPTOMATICALLY AND  
CONSULT PHYSICIAN.

FOR EYE CONTACT: FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST  
FIFTEEN MINUTES. CONSULT PHYSICIAN FOR MEDICAL TREATMENT, IF NECESSARY.

SPECIAL NOTES TO ATTENDING PHYSICIAN: THERE IS NO SPECIFIC ANTIDOTE.  
TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT CONTROL OF THE SYMPTOMS  
AND THE CLINICAL CONDITION.

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SECTION VI -- SIGNS AND SYMPTOMS OF OVER-EXPOSURE  
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ACUTE EFFECTS:

SWALLOWING: MAY CAUSE HEADACHES, NAUSEA, VOMITING, DIZZINESS, IRRITATION OF THE DIGESTIVE TRACT. SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., DROWSINESS, DIZZINESS, LOSS OF COORDINATION, AND FATIGUE). POSSIBLE KIDNEY DAMAGE MAY RESULT FROM INGESTION OF LARGE QUANTITIES OF MATERIAL. ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

SKIN ABSORPTION: PROLONGED OR WIDESPREAD CONTACT WITH SKIN MAY LEAD TO ABSORPTION OF HARMFUL AMOUNTS OF MATERIAL WITH ACCOMPANYING SIGNS AND SYMPTOMS OF TOXICITY AS DESCRIBED FOR SWALLOWING.

INHALATION: VAPORS ARE IRRITATING TO EYES, NOSE AND RESPIRATORY TRACT. OVEREXPOSURE MAY RESULT IN HEADACHE, NAUSEA, VOMITING, SIGNS OF NERVOUS SYSTEM DEPRESSION AND ANEMIA. VAPORS HAVE AN OBJECTIONABLE ODOR.

SKIN CONTACT: MAY CAUSE SLIGHT IRRITATION WITH PROLONGED CONTACT. PROLONGED AND REPEATED OVEREXPOSURE MAY RESULT IN REDNESS, BURNING, DRYING AND CRACKING.

EYE CONTACT: CAUSES IRRITATION, BURNING, TEARING, REDNESS AND SWELLING.

MEDICAL CONDITIONS KNOWN TO BE AGGRAVATED BY OVEREXPOSURE: LUNG CONDITIONS, SENSITIZATIONS, OR ALLERGIES, DERMATITIS.

CHRONIC EFFECTS: BASED ON ANIMAL STUDIES, OVEREXPOSURE TO THIS MATERIAL MAY CAUSE LIVER AND KIDNEY INJURY .

ADDITIONAL KNOWN HEALTH HAZARDS:  
REPORTS HAVE ASSOCIATED PROLONGED AND REPEATED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

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SECTION VII -- REACTIVITY DATA  
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THIS MIXTURE IS STABLE AND HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ACIDS, STRONG BASES, STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, MIXED OXIDES OF NITROGEN, METHYL METHACRYLATE AND N-BUTYL METHACRYLATE

CONDITIONS TO AVOID: EXTREME TEMPERATURES, SPARKS, OPEN FLAMES OR ANY OTHER IGNITION SOURCES.

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SECTION VIII -- SPILL OR LEAK PROCEDURES  
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STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: USING NON-SPARKING TOOLS, PLACE LEAKING CONTAINERS IN A WELL VENTILATED AREA. AVOID BREATHING VAPORS. ELIMINATE ALL SOURCES OF HEAT, SPARKS, OR IGNITION. NOTIFY PROPER AUTHORITIES IF PUBLIC WATERS OR SEWERS ARE CONTAMINATED.

WASTE DISPOSAL METHOD: AS A HAZARDOUS WASTE, THIS MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL ORDINANCES. INQUIRE OF YOUR LOCAL ENVIRONMENTAL AGENCIES FOR THE EXACT LEGAL REQUIREMENTS IN YOUR AREA. REFER TO SECTIONS IV, V, VI, VII AND IX OF THIS

DOCUMENT BEFORE ATTEMPTING ANY CLEANUP.

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SECTION IX -- SAFE HANDLING AND USE INFORMATION  
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RESPIRATORY PROTECTION: WHERE CONCENTRATIONS IN AIR MAY EXCEED THE LIMITS GIVEN IN SECTION II AND ENGINEERING, WORK PRACTICE OR OTHER MEANS OF EXPOSURE REDUCTION ARE NOT ADEQUATE, NIOSH/MSHA APPROVED RESPIRATORS MAY BE NECESSARY TO PREVENT OVEREXPOSURE.  
VENTILATION REQUIREMENTS: LOCAL EXHAUST RECOMMENDED WHEN APPROPRIATE TO CONTROL EXPOSURE TO MIST OR AEROSOLS. GENERAL EXHAUST IS NORMALLY ADEQUATE TO MINIMIZE EXPOSURE TO VAPORS.

PROTECTIVE GLOVES: RUBBER OR NEOPRENE TO MINIMIZE SKIN CONTACT.  
EYE PROTECTION: SAFETY GOGGLES OR FULL FACE SHIELD.  
HYGIENIC SAFETY PRACTICES: WASH HANDS BEFORE EATING, USING TOBACCO PRODUCTS, OR USING THE WASHROOM. TOBACCO AND FOOD SHOULD BE CONSUMED IN DESIGNATED AREAS ONLY.  
ADDITIONAL SAFETY EQUIPMENT: IMPERMEABLE APRONS AND BOOTS. SAFETY SHOWER AND EYE BATH SHOULD BE MADE AVAILABLE.

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SECTION X -- SPECIAL PROCEDURES  
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TRANSPORTATION, STORAGE, AND HANDLING: AVOID CONDITIONS LISTED IN SECTION VII. AVOID PROLONGED STORAGE AT TEMPERATURES IN EXCESS OF 100 F.  
OTHER PRECAUTIONS: PROTECT AGAINST THE INHALATION OF DUST OR PARTICLES GENERATED BY SANDING, BLASTING, OR ABRADING OF THE DRIED COATING.

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SECTION XI -- DISCLAIMER  
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SERICOL, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ACCURACY OR RELIABILITY OF INFORMATION CONTAINED HEREIN, EXCEPT THAT SUCH INFORMATION IS, TO THE BEST OF SERICOL'S KNOWLEDGE AND BELIEF, ACCURATE AS OF THE DATE INDICATED ON THIS DOCUMENT. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIALS MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

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SECTION XII -- CUSTOMER'S OBLIGATIONS  
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SERICOL INC. URGES THE CUSTOMER RECEIVING THIS MATERIAL SAFETY DATA SHEET TO STUDY IT CAREFULLY TO BECOME AWARE OF HAZARDS, IF ANY, OF THE PRODUCTS INVOLVED. IN THE INTEREST OF SAFETY, YOU SHOULD, (1) NOTIFY YOUR EMPLOYEES, AGENTS, AND CONTRACTORS OF THE INFORMATION ON THIS SHEET, (2) FURNISH A COPY TO EACH OF YOUR CUSTOMERS FOR THIS PRODUCT, AND (3) REQUEST YOUR CUSTOMERS TO INFORM THEIR EMPLOYEES, CUSTOMERS, AND AGENTS, AS WELL.

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SECTION XIII -- REGULATORY INFORMATION  
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TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS: THE INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

THIS PRODUCT CONTAINS A TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE ANNUAL REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

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CONTAINS: 1,2,4-TRIMETHYLBENZENE  
 CAS# 95-63-6  
 <1.5 % BY WEIGHT

THIS NOTIFICATION MUST NOT BE DETACHED FROM THE MATERIAL SAFETY DATA SHEET (MSDS) AND ANY COPYING AND REDISTRIBUTION OF THE MSDS SHALL INCLUDE COPYING AND REDISTRIBUTION OF THE NOTICE ATTACHED TO COPIES OF THE MSDS SUBSEQUENTLY REDISTRIBUTED.

STATE OF CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65): THIS PRODUCT MAY CONTAIN TRACE AMOUNTS OF ETHYL ACRYLATE AND FORMALDEHYDE, CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

## PLASTIJET XG SCREEN INKS

## VOLATILE ORGANIC COMPOUND CONTENT (REV. 11/12/04)

PRODUCT DESCRIPTION	% VOC BY WT.	INK WPG (LB.)	LB. VOC PER GAL	GRAMS VOC PER LITRE!
XG-064 SMS YELLOW GS	62	8.63	5.36	643
XG-066 SMS YELLOW RS	66	8.42	5.52	662
XG-101 LL PRIMROSE	60.49	8.65	5.23	627
XG-111 LL LEMON	62.79	8.45	5.31	637
XG-114 SMS ORANGE	63	8.54	5.41	650
XG-121 SMS RED YS	65.5	8.44	5.53	663
XG-123 LL MED YELLOW	60	8.67	5.22	627
XG-127 SMS VIOLET	68	8.37	5.67	681
XG-131 LL BRILL ORANGE	63.91	8.42	5.38	645
XG-141 LL FIRE	61.43	8.53	5.24	629
XG-151 LL SCARLET	61.55	8.55	5.26	631
XG-155 RUBINE	63.0	8.55	5.39	647
XG-160 RHODAMINE	59.8	8.92	5.33	639
XG-164 SMS RED	64	8.50	5.43	651
XG-165 SMS MAGENTA	67	8.40	5.60	672
XG-170 PURPLE	58.59	9.03	5.29	635
XG-175 CMS PURPLE	62.2	8.71	5.42	650
XG-180 WARM RED	64.01	8.42	5.39	647
XG-185 CMS YELLOW	62.14	8.53	5.30	636
XG-190 PROCESS BLUE	61.73	8.80	5.43	651
XG-200 PEACOCK	62.35	8.67	5.41	649
XG-205 REFLEX BLUE	63.48	8.54	5.42	650
XG-210 ULTRA	63.23	8.65	5.47	656
XG-215 CMS GREEN	61.45	8.86	5.44	653
XG-221 LL EMERALD	64.0	8.52	5.45	654
XG--230 SMS BLUE	62.9	8.63	5.43	651
XG-240 TSP PRIMROSE	65.12	8.38	5.46	655
XG-250 TSP MED YELLOW	64.59	8.39	5.42	650
XG-255 TSP GOLD	65.6	8.35	5.48	657
XG-260 STOP SIGN RED	63.82	8.43	5.38	645
XG-265 TSP DARK RED	62.29	8.50	5.29	635
XG-270 TSP ORANGE	64.56	8.40	5.42	650
XG-280 TSP GREEN	64.52	8.49	5.48	657
XG-290 TSP BLUE	64.45	8.42	5.43	651
XG-295 CMS VIOLET	64.91	8.40	5.45	654
XG-301 BLACK	63.62	8.51	5.41	649
XG-311 S.O. WHITE	49.17	10.65	5.24	629
XG-312 FLAT WHITE	43.26	11.74	5.08	609
XG-325 SMS GREEN	64	8.73	5.55	666
XG-600 V-GLO CHARTREUSE	45.35	9.2	4.17	500
XG-610 V-GLO ORG/YELLOW	45.35	9.2	4.17	500
XG-620 V-GLO ORANGE	46.76	9.146	4.28	513
XG-630 V-GLO ORG/RED	45.35	9.2	4.17	500
XG-640 V-GLO ROCKET RED	45.35	9.201	4.17	500
XG-650 V-GLO PINK	45.35	9.2	4.17	500

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XG-660 V-GLO GREEN	50.98	8.985	4.58	550
XG-670 V-GLO BLUE	45.35	9.2	4.17	500

## MSDS# XG

## PLASTIJET XG SCREEN INKS

## VOLATILE ORGANIC COMPOUND CONTENT (REV. 11/12/04)

PRODUCT DESCRIPTION	% VOC BY WT.	INK WPG (LB.)	LB. VOC PER GAL	GRAMS VOC PER LITRE
XG-FP FLATTING PASTE	52.59	9.497	4.99	599
XG-GM XG GM GOLD METALLIC	56.5	7.95	4.49	539
XG-GRT GEL RETARDER	64	8.955	5.73	688
XG-HTB HT BLUE	64.59	8.51	5.50	660
XG-HTK HT BLACK	64.46	8.53	5.50	660
XG-HTR HT RED	63.35	8.55	5.42	650
XG-HTX HT EX BASE	65.39	8.48	5.55	666
XG-HTY HT YELLOW	63.35	8.54	5.41	649
XG-HTBT HT BLUE TONER	62.73	8.57	5.38	645
XG-HTKT HT BLACK TONER	62.29	8.61	5.36	643
XG-HTRT HT RED TONER	58.6	8.69	5.10	612
XG-HTYT HT YELL TONER	58.6	8.67	5.08	609
XG-MX/OP MIX/OP CLEAR	67	8.313	5.56	667
XG-RT RETARDER	100	8.299	8.299	996
XG-SB SHADING BLACK	67	8.42	5.65	678
XG-SM XG SM SILVER METALLIC	55.33	9.30	5.145	617
XG-SOP SATIN OP CLEAR	63.36	8.53	5.40	648
XG-STH STYRENE THINNER	100	7.82	7.82	938
XG-TH THINNER	100	7.852	7.852	942
XG-TW TINTING WHITE	58.4	9.362	5.47	656
XGS21096 SP XG WHITE	50.40	10.65	5.37	644