

MSDS# CP

 * MATERIAL SAFETY DATA SHEET *

For screen printing inks as required under 29 CFR 1910.1200(g).

UNDER OSHA'S HAZARD COMMUNICATION STANDARD, WHERE COMPLEX MIXTURES HAVE SIMILAR HAZARDS AND CONTENTS, THE MANUFACTURER MAY PREPARE ONE MATERIAL SAFETY DATA SHEET TO APPLY TO ALL OF THESE SIMILAR MIXTURES. THIS DOCUMENT APPLIES TO ALL COLORS AND SPECIALS IN THIS INK LINE.

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

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

EMERGENCY PHONE NUMBER (816) 587-8178 PREPARER: CRAIG POGGENPOHL DATE OF PREPARATION REGULATORY COMPLIANCE MGR. REVISED 08/26/03/CP

REVISIONS: SECTION II.

SECTION I--PRODUCT IDENTIFICATION

PRODUCT CODE: CP-110 CP-120 CP-140 CP-155 CP-180
 CP-190 CP-205 CP-210 CP-221 CP-301
 CP-311 CP-MX
 PRODUCT NAME: CORROPLAS
 PRODUCT CLASS: SOLVENT-BASED SCREEN PRINTING INK

SECTION II--HAZARDOUS INGREDIENTS

COMMON NAME (CAS REGISTRY #)	PERCENT BY WEIGHT	RECOMMENDED EXPOSURE LIMITS (PPM) ¹ ACGIH TLV-TWA OSHA PEL	VAPOR PRESSURE (MM HG @ 20 C) ¹
CUMENE 17500 29515(00098-82-8)!	! 1.0-1.5	! 50 SKIN ³ 50 SKIN ³	8.0
TRIMETHYLBENZENES 17500 29515(25551-13-7)!	! 6.7-10.8	25 25	< 5.0
XYLENE 17500 29515(01330-20-7)!	! 2.2-3.6	100 100 (STEL 150) (STEL 150)	6.6
PETROLEUM DISTILLATE 17500 29515(64742-95-6)!	! 21.9-35.6	100 ² NE	3.0
BUTYL BENZYL PHTHALATE A70900 (85-68-7) !	! 1.5	5 MG/M3 ² NE	1.9 @ 392 F.
LEAD CHROMATE ⁴ (7758-97-6) as Cr	! as Cr	! 0.012mg/m ³ !	! NA
T50000 SERIES	! as Pb	! 0.05mg/m ³ !	!
NA - NOT APPLICABLE	NE - NOT ESTABLISHED	UKN - UNKNOWN	

¹ UNLESS NOTED OTHERWISE, THE UNITS ARE PPM AND mm hg @ 20 C, RESPECTIVELY, FOR EXPOSURE LIMITS AND VAPOR PRESSURES.

² RECOMMENDED BY MANUFACTURER.

³ 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.

⁴ INKS CONTAINING LEAD CHROMATE (SOME SPECIALS MAY NOT BE LISTED):
 CP-110 CP-120 CP-140

SECTION III -- PHYSICAL AND CHEMICAL CHARACTERISTICS

MSDS# CP

=====

BOILING RANGE: 308-335 DEG. F @ 760 MM/HG.
DENSITY IS 8.2-10.6 LBS/GAL.
VOC CONTENT OF MATERIAL: 32-52% BY WEIGHT OR 400-500 GRAMS/LITER.
VOC CONTENT OF COATING LESS WATER AND LESS EXEMPT SOLVENTS: 400-500 G/L.
SOLUBILITY IN WATER: SLIGHT
THE EVAPORATION RATE (ETHER=1): 25
VAPOR DENSITY (AIR=1): 4.15
APPEARANCE AND ODOR: VISCOUS LIQUID, HYDROCARBON ODOR.

=====

SECTION IV -- PHYSICAL HAZARD DATA

=====

FLAMMABILITY CLASSIFICATIONS: OSHA: CLASS II DOT: COMBUSTIBLE LIQUID
TAG CLOSED CUP FLASH POINT: 108 DEG. F.
EXPLOSIVE LIMITS: LOWER(% VOLUME): 1.0 UPPER(% VOLUME): 7.0.

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, AND OPEN FLAMES. CLOSED CONTAINERS MAY
RUPTURE WHEN EXPOSED TO EXTREME HEAT. WATER MAY BE USED TO COOL
UNRUPTURED CONTAINERS.
DURING EMERGENCY CONDITIONS, OVEREXPOSURE TO DECOMPOSITION PRODUCTS
MAY CONSTITUTE A HEALTH HAZARD. SYMPTOMS MAY NOT BE IMMEDIATELY
APPARENT. OBTAIN MEDICAL ATTENTION.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE UNSUITABLE FOR USE ON
BURNING LIQUIDS. FULL PROTECTIVE EQUIPMENT IS RECOMMENDED TO PROTECT
FIRE FIGHTERS FROM ANY HAZARDOUS DECOMPOSITION PRODUCTS.
WATER SPRAY MAY BE INEFFECTIVE. 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 OR EXPLOSION WHEN
EXPOSED TO EXTREME HEAT.

=====

SECTION V -- EMERGENCY AND FIRST-AID PROCEDURES

=====

PRIMARY ROUTES OF ENTRY ARE DERMAL AND INHALATION.

SWALLOWING: DO NOT INDUCE VOMITING. THIS MATERIAL IS AN ASPIRATION
HAZARD. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, PLACE ON LEFT SIDE
WITH THE HEAD DOWN. SEEK MEDICAL ATTENTION. IF POSSIBLE, DO NOT LEAVE
INDIVIDUAL UNATTENDED.

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

INHALATION: IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP,
MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS
PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING,
ARTIFICIAL RESPIRATION SHOULD BE ADMINISTERED. IF BREATHING DIFFICULTIES
DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK
IMMEDIATE MEDICAL ATTENTION.

EYE CONTACT: MOVE VICTIM AWAY FROM EXPOSURE TO VAPORS AND INTO FRESH AIR.
IF IRRITATION OR REDNESS DEVELOPS, SEEK MEDICAL ATTENTION. FOR DIRECT
CONTACT, HOLD EYELIDS APART AND FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER
FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

MSDS# CP

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.

=====
SECTION VI -- SIGNS AND SYMPTOMS OF OVEREXPOSURE
=====

ACUTE EFFECTS:

SWALLOWING: THIS MATERIAL HAS A LOW DEGREE OF TOXICITY. INGESTION OF EXCESSIVE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). ASPIRATION HAZARD - ONE OR MORE COMPONENTS OF THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

SKIN ABSORPTION: CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED BY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION: THIS MATERIAL HAS A LOW DEGREE OF TOXICITY BY INHALATION. BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE IRRITATION OF THE NOSE AND THROAT AND SIGNS OF NERVOUS SYSTEM DEPRESSION. RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (E.G., ASTHMA - LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

SKIN CONTACT: ONE OR MORE COMPONENTS OF THIS MATERIAL MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING AND DRYING AND CRACKING OF THE SKIN AND SKIN DAMAGE.

EYE CONTACT: ONE OR MORE COMPONENTS OF THIS MATERIAL IS AN EYE IRRITANT. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING, REDNESS AND SWELLING.

CONDITIONS KNOWN TO BE AGGRAVATED BY OVEREXPOSURE: SKIN CONTACT AGGRAVATE AN EXISTING DERMATITIS.

CHRONIC EFFECTS: DERMATITIS.

INKS CONTAINING LEAD CHROMATE:

LEAD CHROMATE IS SUSPECTED TO CAUSE LUNG CANCER AND IS LISTED BY THE NATIONAL TOXICOLOGY PROGRAM (NTP) AND THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC).

CARCINOGENICITY - LEAD CHROMATE: NTP? YES IARC? YES OSHA? NO

HEALTH EFFECTS OF OVEREXPOSURE TO LEAD:

PROLONGED OR REPEATED INHALATION AND INGESTION, SUCH AS FROM POOR HYGIENE, HOUSEKEEPING OR HANDLING PRACTICES, CAN RESULT IN LEAD POISONING.

ACUTE EFFECTS: MAY CAUSE ACUTE ENCEPHALOPATHY WHICH DEVELOPS QUICKLY TO SEIZURES, COMA, AND DEATH FROM CARDIORESPIRATORY ARREST.

CHRONIC EFFECTS: CAN CAUSE LOSS OF APPETITE, METALLIC TASTE IN THE MOUTH, ANXIETY, CONSTIPATION, NAUSEA, PALLOR, EXCESSIVE TIREDNESS, WEAKNESS, INSOMNIA, HEADACHE, NERVOUS IRRITABILITY, MUSCLE AND JOINT PAIN OR SORENESS, FINE TREMORS, NUMBNESS, DIZZINESS, HYPERACTIVITY AND COLIC. LEAD COLIC MAY CAUSE SEVERE ABDOMINAL PAIN. OVEREXPOSURE CAN ALSO CAUSE DAMAGE TO THE CENTRAL NERVOUS SYSTEM AND THE BRAIN (ENCEPHALOPATHY), KIDNEY DISEASE, REPRODUCTIVE TOXICITY IN BOTH MEN AND WOMEN, BLOOD-FORMING SYSTEM DISORDERS AND ULTIMATELY ANEMIA. REFERENCE 29 CFR 1910.1025 FOR MORE INFORMATION ON LEAD EXPOSURE.

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

AND INHALING THE CONTENTS MAY BE HARMFUL OF FATAL.

=====
SECTION VII -- REACTIVITY DATA
=====

THIS MIXTURE IS STABLE AND HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

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

HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION IN THE PRESENCE OF AIR MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE.

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

=====
SECTION VIII -- SPILL OR LEAK PROCEDURES
=====

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: USING NON-SPARKING TOOLS, PLACE LEAKING CONTAINERS IN A WELL VENTILATED AREA. ELIMINATE ALL SOURCES OF HEAT, SPARKS, OR IGNITION. NOTIFY PROPER AUTHORITIES IF PUBLIC WATERS OR SEWERS ARE CONTAMINATED. WEAR APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATORY PROTECTION EQUIPMENT WHEN ENTERING THE SPILL AREA. SHUT OFF LEAK IF IT CAN BE DONE SAFELY. VENTILATE THE AREA. DIKE AND PUMP OFF LARGE SPILLS INTO SALVAGE OR STORAGE CONTAINERS. TAKE UP RESIDUE OR SMALL SPILLS WITH ABSORBENT MATERIAL SUCH AS CLAY OR VERMICULITE. SCOOP UP ALL CONTAMINATED SOIL AND DISPOSE OF IN SAME MANNER AS THE PRODUCT. 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 CLEANUP.

=====
SECTION IX -- SAFE HANDLING AND USE INFORMATION
=====

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.

SPECIAL HANDLING INSTRUCTIONS FOR INKS CONTAINING LEAD CHROMATE:

OCCUPATIONAL EXPOSURE TO LEAD CHROMATE IN OUR PRODUCTS IS UNLIKELY. HOWEVER, SANDING, BLASTING, OR ABRADING OF THE DRIED COATING CAN GENERATE HARMFUL DUST OR PARTICLES IF INHALED. IT IS RECOMMENDED THAT YOU WEAR A PROPERLY FITTED RESPIRATOR (NIOSH/MSHA APPROVED) WHILE PERFORMING ANY OF THE ABOVE FUNCTIONS.

REFERENCE 29 CFR 1910.1025 FOR MORE INFORMATION ON LEAD EXPOSURE.

=====
SECTION X -- SPECIAL PROCEDURES
=====

TRANSPORTATION, STORAGE AND HANDLING: AVOID CONDITIONS LISTED IN SECTION VII. AVOID PROLONGED STORAGE AT TEMPERATURES IN EXCESS OF 100 F.

OTHER PRECAUTIONS: NONE.

=====
SECTION XI -- DISCLAIMER
=====

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.

=====
SECTION XII -- PURCHASER'S OBLIGATIONS
=====

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.

=====
SECTION XIII -- REGULATORY INFORMATION
=====

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.

CONTAINS: 1,2,4-TRIMETHYLBENZENE, CAS# 95-63-6,
6.7-10.8% BY WEIGHT.

CUMENE, CAS# 98-82-8,
1.0-1.5% BY WEIGHT.

XYLENE, CAS# 1330-20-7
2.2-3.6% BY WEIGHT.

INKS CONTAINING LEAD CHROMATE:

LEAD COMPOUNDS: 17.5 % MAXIMUM BY WEIGHT.
(LEAD CONTENT: 12.0 % MAXIMUM BY WEIGHT)

CHROMIUM COMPOUNDS: 17.5 % MAXIMUM BY WEIGHT.
(CHROMIUM CONTENT: 3.0 % MAXIMUM 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:

MSDS# CP

THIS PRODUCT IS CONSIDERED "PHOTOCHEMICALLY REACTIVE" BY DEFINITION OF RULE 102 OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT.

STATE OF CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (PROPOSITION 65): FOR PRODUCTS CONTAINING LEAD CHROMATE PIGMENTS:

LEAD IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND REPRODUCTIVE TOXICITY.

CHROMIUM (HEXAVALENT COMPOUNDS) IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

CORROPLAS SCREEN PRINTING INKS

VOC INFORMATION

PRODUCT DESCRIPTION	WPG INK IN LBS	% VOC BY WT	LBS VOC PER GAL	GRAMS VOC PER LITRE
CP-110 LEMON YELLOW	9.033	45.5	4.11	493
CP-120 MEDIUM YELLOW	9.560	42.3	4.04	485
CP-140 FIRE RED	9.250	43.1	3.99	478
CP-155 RUBINE RED	8.467	47.6	4.03	483
CP-180 WARM RED	8.264	49.8	4.12	494
CP-190 PROCESS BLUE	8.680	47.1	4.09	490
CP-205 REFLEX BLUE	8.382	49.0	4.10	492
CP-210 ULTRA BLUE	8.554	47.2	4.03	484
CP-221 EMERALD GREEN	8.382	49.4	4.14	497
CP-301 BLACK	8.340	49.2	4.10	492
CP-311 WHITE	10.604	31.8	3.37	404
CP-MX MIXING CLEAR	8.169	51.5	4.21	505