

**Material Safety Data Sheet  
For  
Zipset Printing Ink**

Date: 8/15/95

For Printing Ink and Related Materials. Information on this form is propriety information and furnished solely for the use of our customers.

HAZARD RATINGS		HAZARD GUIDELINES	
HEALTH	1	0	MINIMAL
FLAMMABILITY	1	1	SLIGHT
REACTIVITY	0	2	MODERATE
PERSONAL PROTECTION	B	3	SERIOUS
		4	SEVERE
		B	NON-PHOTOCHEMICAL REACTIVE

**1. PRODUCT IDENTIFICATION**

Manufacturer's Name: Tokyo Printing Ink Mfg. Co., Ltd.  
Address: 2-7-15 Tabatashinmachi, Kita-Ku Tokyo, Japan  
Telephone No.: 011-81-3-3810-9700  
Emergency U.S.A. Telephone No.: 1-800-365-8742  
Product Class: OFFSET PRINTING INK  
Trade Name: ZIPSET

**2. HAZARDOUS INGREDIENTS**

INGREDIENT	CAS #	HAZARD DATA
Organic Pigments		OSHA PEL 5MG/m3 (OIL MISTS)
Modified Rosin Ester	68082-96-2	
Modified Rosin Ester	65997-11-7	
Linseed Oil	8001-20-5	
Maganese Octoate	15956-58-8	
Cobalt Octoate	136-52-7	
Petroleum Distillate	8042-47-5	

RECEIVED

Chemicals Listed as Carcinogen or Potential Carcinogen:

National Toxicology Program.....No  
I.A.R.C. Monographs.....No  
OSHA.....No

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**3. HEALTH EFFECT INFORMATION**

Eye Contact: May cause burning and/or irritation.  
Skin Contact: Repeated exposure may cause irritation.  
Inhalation: May cause headache, dizziness and/or nausea.  
Ingestion: May cause mouth, esophagus and/or stomach irritation.

**4. EMERGENCY AND FIRST AID PROCEDURES**

Eye Contact: Flush eyes with large amounts of water while holding the eyelid open for approximately 15 minutes. SEEK MEDICAL ATTENTION.  
Skin Contact: Remove contaminated clothing and wash skin with plenty of soap and water. Wash clothing before reuse. If irritation persists seek medical attention.  
Inhalation: Remove victim to fresh air and restore breathing if necessary. SEEK MEDICAL MEDICAL ATTENTION and stay with victim until arrival of medical personnel.  
Ingestion: Contact local poison control center or physician immediately. DO NOT induce vomiting

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#### 5. PERSONAL HEALTH PROTECTION INFORMATION

Eye Protection: If splash potential exists, wear chemical splash goggles or faceshield.  
Skin Protection: Not required under normal usage. If product is used in abnormal ways, wear neoprene rubber gloves and apron or coveralls as needed to prevent repeated or prolonged skin contact.  
Respiratory Protection: Not required under normal usage. If product is used in abnormal ways, wear OSHA approved respirator.  
Ventilation: Adequate ventilation in accordance with good engineering practices.  
Other: Wash hands and face with soap and water before eating or smoking.

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#### 6. FIRE PROTECTION INFORMATION

Flash Point: Greater than 305 degrees Fahrenheit  
Hazardous Decomposition: NONE  
Extinguishing Media: Use NFPA Class B Extinguisher (Carbon Dioxide, Dry Chemical or Foam).  
Special Fire Fighting Procedures: Water can be used to cool containers exposed to heat or fire.  
Unusual Fire or Explosive Conditions: Dense smoke may be generated when burning.  
Hazardous Combustion Products: Products of combustion-smoke, CO, CO2

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#### 7. REACTIVITY DATA

Stability (thermal, light, etc.): Stable  
Incompatibility: May react with strong oxidizing agents.  
Hazardous Polymerization: Stable  
Hazardous Decomposition Products: None

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#### 8. ENVIRONMENTAL PRECAUTIONS

Procedures: Collect large spills with shovel, dry sand and/or absorbent materials. Clean spill area with detergent solutions. Provide adequate ventilation during clean up.  
Waste Disposal Method: Waste material should be dumped or buried in an approved industrial waste landfill. Disposal must comply with all federal and local regulations.

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#### 9. SPECIAL PRECAUTIONS

Handling & Storage: Store in sealed containers away from heat, open flame and oxidizing materials. Fire extinguishers must be kept readily available and personnel trained in proper use.  
Precautionary Statement: Do not transfer to unmarked containers. Follow DOT Regulations during Transport.

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#### 10. PHYSICAL PROPERTIES

Boiling Point: 450-505 degrees Fahrenheit  
Solubility: Insoluble in water  
Melting Point: Greater than 220 degrees Fahrenheit  
Appearance: Paste  
Volatile by Weight: Less than 33%  
Vapor Density (Air=1): Lighter than air  
Specific Gravity: Less than or equal to 1.1 (except Opaque White and Metallics which are less than or equal to 1.5)  
Evaporation Rate (EE=1): Slower than Butyl Acetate

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**ZIPSET TECHNICAL DATA SHEET**  
Volatile Organic Compounds (VOC's)  
Test Method 24

PRODUCT DESCRIPTION	VOC % by Wt.	PRODUCT DESCRIPTION	VOC % by Wt.
FF PROCESS YELLOW	22.3	DENSE BLACK	17.7
FF PROCESS MAGENTA	23.0	XL-R DENSE BLACK	16.9
FF PROCESS CYAN	20.3	MATTE BLACK	20.4
FF PROCESS BLACK	19.4	MATCH PRINT YELLOW	31.6
XL-R PROCESS YELLOW	28.9	WEATHERING YELLOW	19.1
XL-R PROCESS MAGENTA	25.2	WEATHERING MAGENTA	22.4
XL-R PROCESS CYAN	24.4	O.P. TOP VARNISH	22.5
XL-R PROCESS BLACK	19.5	O.P. DULL VARNISH	19.8
GP-1 YELLOW	22.0	801 BLUE	14.4
GP-1 MAGENTA	22.5	802 GREEN	11.9
GP-1 CYAN	23.3	803 YELLOW	10.6
GP-1 BLACK	26.6	804 ORANGE	10.2
PANTONE YELLOW	23.3	805 ORANGE	10.7
PANTONE WARM RED	19.7	806 PINK	10.3
PANTONE RUBINE RED	22.1	807 PURPLE	12.6
PANTONE RHODAMINE RED	20.1	KOF # 8 BLACK	15.4
PANTONE PURPLE	16.4	DUPLICATOR YELLOW	23.8
PANTONE VIOLET	22.6	DUPLICATOR WARM RED	22.3
PANTONE REFLEX BLUE	19.3	DUPLICATOR RUBINE RED	22.9
PANTONE PROCESS BLUE	20.1	DUPLICATOR REFLEX BLUE	20.4
PANTONE GREEN	16.3	DUPLICATOR PROCESS BLUE	20.9
OPAQUE WHITE	12.7	DUPLICATOR GREEN	17.6
PANTONE TRANSPARENT WHITE	23.7	DUPLICATOR TRANSPARENT WHITE	24.2
PANTONE MIXING BLACK	19.8		
PANTONE 872 GOLD	18.0		
PANTONE 873 GOLD	13.9		
PANTONE 874 GOLD	15.4		
PANTONE 877 SILVER	21.1		
PANTONE 032 RED	17.9		
PANTONE 185 RED	21.3		
PANTONE 072 BLUE	20.1		
PANTONE 300 BLUE	20.9		