

MATERIAL SAFETY DATA SHEET (MSDS)		PIGMENT ROLLER	
PRODUCERS <input checked="" type="checkbox"/> FOR SUPPLIER <input type="checkbox"/> WAREHOUSERS <input type="checkbox"/>		BLACK INK INK& FPN	
Section I GENERAL INFORMATION			
Manufacturer's Name OHTO Co., Ltd. (JAPAN)		Emergency Tel.No. TOKYO 03-3864-7441	
Address #364 I Namiki-nishi, Hokusan-moro, Yuuki-city, Ibaraki-Prif., 307 01 JAPAN		Telephone Number 0296-35-2311 Tele-Fax Number 0296-35-2319 Date Prepared 11 .NOV , 1999 Signature <i>Zensuke Kokuta</i> ZENSUKE KOKUTA	
SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION			
Hazardous Ingredients (Chemical or common name)	CAS No.	TLV	wt%
C-1 Pigment Black 7	CAS #	1333 86-4	
Acrylic acid copolymer	CAS #	25609-90-9	
1,2-Benzisotiazol-3(2H)-one	CAS #	2634 33-5	
Diethanol amine	CAS #	111-42-2	
Glycerin	CAS #	56-81-5	
1,2-Ethan diol	CAS #	107-21-1	
Propylene glycol	CAS #	57-55-6	
Potassium Olate	CAS #	143 18-0	
Polyethylene glycol M4000	CAS #	25322-68-3	
Polyoxyethylene nonylphenyl ether	CAS #	9106-45-9	
Benzotriazole	CAS #	95 14-7	
Water			
SECTION III PHYS./CHEM. CHARACTERISTICS (specify component)			
Appearance and odour: Black Liquid, Odorless		Component : Water based ink	
Boiling point (°C) : 100°C		Density (g/cm ³) : 1.088	
Vapour density (Air-1) : n.d		Melting point (°C) : 0°C	
Solubility in water : 100%		Evaporation rate (butylacetate=1) : n.d	
pH (at 20°C) : 8.38		Viscosity (cp at 20°C) : 4.50	
Surface tension (dyne/cm) : 36.3			
Pressurized <input type="checkbox"/>	yes <input type="checkbox"/>	no <input type="checkbox"/>	(%) <input type="checkbox"/>
		% volatile** : n.d	
SECTION IV FIRE AND EXPLOSION HAZARD DATA			
Flash point method used : n.a		Explosion limits (Vol.%) LEL n.a UEL n.a	
Extinguishing media : n.a			
Special fire fighting precautions: n.a		Autoignition temp. (°C) : n.a	
List hazardous products of decomposition			
Other advice : NONE			
IMPORTANT			
(*) Part of the mixture which evaporates.			
Not applicable = n.a.			
Not determined = n.d.			

SECTION V. STORAGE HAZARDS			
Stability unstable <input type="checkbox"/>	Conditions		
stable <input checked="" type="checkbox"/>	to avoid		NONE
Incompatibility (materials to avoid)			NONE
List hazardous products of decomposition			n.d.
Hazardous polymerization	May occur <input type="checkbox"/>	Condition to avoid	NONE
	Will not occur <input checked="" type="checkbox"/>		
SECTION VI. HEALTH HAZARDS			
1.Acute	NONE	2.Chronic	NONE
Signs and symptoms of overexposure:			NONE
Medical conditions generally aggravated by exposure:			NONE
Chemical listed as carcinogen:	Carbon black is classified with 2B of IARC		
Emergency and first aid procedures:		n.a.	
Routes of entry	Emergency procedure		Seek medical advice
Inhalation	NONE		<input type="checkbox"/>
Eyes	Wash with water.		<input checked="" type="checkbox"/>
Skin	Wash with soap water.		<input type="checkbox"/>
Ingestion	Give water, and person vomit		<input type="checkbox"/>
SECTION VII. SPECIAL PRECAUTIONS			
Environmental toxicity data :	n.a.		
Special precautions to be taken in handling storage:	Above high temperature.		
Other precautions	NONE		
Steps to be taken in case material is released or spilled:	Wash off inks and wash with detergents and water.		
Waste disposal method :	Do not discharge into waterways or sewer systems without proper authority.		
SECTION VIII. SPECIAL PROTECTION INFORMATION/CONTROL MEASURES			
Respiratory protection :	NIOSH/MSHA-approve organic vapor respirator when vapor (specify type) without proper authority.		
Ventilation	Local	Mechanical	Other
	yes exhaust	no (general)	n.a. n.a.
Skin and eye protection:	Wear chemical goggles ,gloves,coveralls,apron,boots.		
Work/hygienic practices:	Shower after handling this product.Clean clothing shoud be worn daily.		