## U.S. Department of Labor Material Safety Data Sheet Occupational Safety and Health Administration May be used to comply with (Non-Mandatory Form) OSHA's Hazard Communication Standard, Form Approved 29 CFR 1910,1200. Standard must be OMB No.1218-0072 consulted for specific requirements. Note :Blank spaces are not permitted. If any item is not applicable, IDENTITY(As Used on Label and List) or no information is available, the space must be marked to DC3-605-001 indicate that. **GREEN RIBBON-350M** Section I **Emergency Telephone Number** Manufacturer's Name DAI NIPPON PRINTING CO.,LTD. 04-2952-9666 Telephone Number for information Address: 04-2952-9666 2-5-1, Hirosedai, Sayama, January 5, 2012 Date prepared Saitama, 350-1328 **JAPAN** Signature of Preparer (optional) Section II - Hazardous Ingredients/Identity Information Other Limits Recommended %(optional) Hazardous Components (Specific Chemical Identity; Common Name(s)) OSHA PEL ACGIH TLV $(75 \sim 84\%)$ Polyethylene terephthalate film (CAS No. 25038-59-9) ---Coating layer substances (1~2.5%)Carbon Black (CAS No.1333-86-4) (3~6.5%)... Pigment Blue (Trade secret) (3~6.5%)Pigment Yellow (Trade secret) (9~14%)Synthetic resin (Trade secret) (1~2.5%)Others ---------Section III - Physical / Chemical Characteristic About 1.2 **Boiling Point** Not applicable Specific Gravity (H2O=1) Not applicable Melting Point Vapor Pressure (mmHg) Not applicable Negligible Evaporation Rate (Butyl Acetate=1) Vapor Density (AIR = 1) Not applicable Solubility in water Negligible Appearance and Odor Ink is green solid with slight odor. Section IV - Fire and Explosion Hazard Data UEL Flash point (Method Used) Flammable Limits LEL Not applicable Not applicable Not applicable Not applicable **Extinguishing Media** CO2, Water, Dry Chemicals, Foam Special Fire fighting Procedures For large quantities (i.e. truckload or pallet) involved in a fire, firefighters should wear self-contained breathing apparatus and protective clothing. Unusual Fire and Explosion Hazards None

Section v - Reactivity Data							
Stability	Unstable		Conditions to Avoid				
	Ctoble		None				
	Stable	0					
Incompatibility (Materia		•					
Strong acids and st							
Hazardous Decompos		ts					
Hazardous May Occur Conditions to Avoid							
Polymerization	3.5.5.7.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.		None				
	Will Not Occur	0					
Section VI - Health Hazard Data							
Route(s) of Entry: Inhalation? Skin? Ingestion?							
Noute(s) of Lifting.		No		No	possible but very unusual.		
Health Hazards(Acute	and Chronic)						
	are negative muta		Test species ;S. typhimu	rium )	2000		
Carcinogenicity:		Ν	ITP?	IARC Monographs? Group 2B	OSHA Regulated?		
In 1996 the International A	Agency for Research	on Car	ncer (IARC) reevaluated cart	on black as a group 2B ca	rcinogen (possible human carcinogen) ,based upon the		
development of lung tumors	in rats receiving chro	onic inha	alation exposures to free carb	on black. The effects were ob	served only in animals exposed to high concentrations of		
carbon black at levels that in	nduce particle overloa a two-vear cancer b	d of the	lung. Studies performed in ani	imai modeis other than rats na tion containing carbon black d	ve not demonstrated an association between carbon black lemonstrated no association between toner exposure and		
tumor development in rats.							
Epidemiology studies of wor	rkers in the carbon bla	ack prod	lucing industries of North Ame	erica and Western Europe do r	not demonstrate an association between carbon black and ded that "there is inadequate evidence in humans for the		
carcinogenicity of carbon bla	ack. "Chronic over exp	osure to	many dusts, including carbor	black dust, may result in resp	piratory tract irritation and slight changes in lung function.		
Signs and Symptoms of None							
Medical Conditions							
Generally Aggravated by Exposure None							
Emergency and First Aid Procedures							
Not applicable							
			afe Handling and	Use			
Steps to Be Taken in C	Case Material is R	elease	ed or Spilled				
Not applicable	d						
Waste Disposal Metho	iu ne method of ordi	inanı n	lastic products in accord	dance with all applicable	e regulations. Any disposal practice must be in		
compliance with loc	al. state and fede	ral law	s and regulations. If nec	cessary, contact government	nent office and ensure conformity with disposal		
regulations.			J	,, J			
Precautions to Be Taken in Handling and Storing.							
No special precautions for safety reason.							
Other Precautions None							
Section VIII - Control Measures							
Respiratory Protection (Specify Type) Not required							
Ventilation		Local Exhaust No			Special No		
	-		anical(General)		Other		
		No			No		
Protective Gloves Eye Protection							
Not required Not required  Other Protective Clothing or Equipment							
None							
Work/Hygienic Practices None							
Nulle							

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Section V - Re	eactivity Data	Î				
Stability	Unstable		Conditions to Avoid None			
	Stable	0				
Incompatibility (Mate		1	2.			
	strong oxidizing age					
Hazardous Decompo	d H2O etc.	s				
Hazardous Polymerization	May Occur		Conditions to Avoid None			
α 	Will Not Occur	0				
Section VI - H	ealth Hazard	Data	l			
Route(s) of Entry:		Ir	halation? No	Skin? No	Ingestion? possible but very unusual.	
Health Hazards(Acut						
	are negative mutag		Test species ;S. typhim		OCITA Descripted?	
Carcinogenicity:		N	TP? No	IARC Monographs? No	OSHA Regulated? No	
			140	110		
Signs and Symptoms None	s of Exposure					
Medical Conditions						
Generally Aggrava			None			
Emergency and First Not applicable	Aid Procedures					
Section VII - P	recautions for	or Sa	ife Handling an	d Use		
Steps to Be Taken in Not applicable	Case Material is R	elease	d or Spilled			
Waste Disposal Meth	od			W R . P L	I A disposal procine must be in	
compliance with lo	ame method of ordinocal, state and fede	nary p rai law	lastic products in acco s and regulations. If ne	rdance with all applicable cessary, contact govern	le regulations. Any disposal practice must be in ment office and ensure conformity with disposal	
regulations. Precautions to Be Ta	ken in Handling and	1 Storii	na.			
	tions for safety reas		·9·			
Other Precautions None						
Section VIII - 0	Control Meas	ures				
Respiratory Protection	n (Specify Type)					
Ventilation		Local Exhaust			Special	
		No No harias/(Canaral)			No Other	
		Mechanical(General) No			No	
Protective Gloves Not required				Eye Protection Not required	···	
Other Protective Clot	hing or Equipment			1 100010010000		
None						
Work/Hygienic Practi None	ces		•			
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Section V - Rea	activity Data	3			
Stability	Unstable		Conditions to Avoid		
	Stable	0	None		
21 04 114 75 6 1	1 1 4 11				
Incompatibility (Materi Strong acids and st		ent.			
Hazardous Decompos	ition or Byproduc				
CO,CO2,NOX and			Conditions to Avoid		
Hazardous Polymerization	May Occur				
·	Will Not Occur	0			
Section VI - He	alth Hazard	Data	l		
Route(s) of Entry:		In	halation?	Skin?	Ingestion?
			No	No	possible but very unusual.
Health Hazards(Acute		aonic/T	est species ;S. typhim	urium \	
Carcinogenicity:	are negative muta		TP?	IARC Monographs?	OSHA Regulated?
Carolinogomony.			No	No	No
Signs and Symptoms	of Exposure				
None	<u>'</u>				
Medical Conditions	ad bu Cusasura		None		
Generally Aggravat Emergency and First A			None		G G
Not applicable	aid i focedules				
Section VII - Pr	ecautions f	or Sa	fe Handling an	d Use	
Steps to Be Taken in C Not applicable		Release	d or Spilled		
Waste Disposal Metho					
					le regulations. Any disposal practice must be in ment office and ensure conformity with disposa
Precautions to Be Take	en in Handling an	d Storir	ıg.		
No special precauti					
Other Precautions None					
Section VIII - C	ontrol Meas	ures			
Respiratory Protection Not required		- Car 00			×
Ventilation		Local	Exhaust		Special
No					No
	-	Mecha No	inical(General)		Other No
Protective Gloves				Eye Protection	
Not required Other Protective Clothi	na or Equipment			Not required	
Other Protective Clothi	ing or equipment				
Work/Hygienic Practice	 es				
None					
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Section V - Rea	activity Dat	a				
Stability	Unstable		Conditions to Avoid			
	Stable	0	None			
	5387458778					
Incompatibility (Material Strong acids and st	rong oxidizing ac					
Hazardous Decompos CO,CO2,NOX and		cts			P	
Hazardous	May Occur					
Polymerization	Will Not Occur	0	None			
	Will Not Occur					
Section VI - He	alth Hazard	Data	a			
Route(s) of Entry:			nhalation? No	Skin? No	Ingestion? possible but very unusual.	
Health Hazards(Acute	and Chronic)		140	110	possible but very unusual.	
		agenic(	Test species ;S. typhim			
Carcinogenicity:		N	ITP?	IARC Monographs?	OSHA Regulated?	
in 1996 the International A	Agency for Research	n on Ca	No ncer (IARC) reevaluated car	bon black as a group 2B ca	No arcinogen (possible human carcinogen) ,based upon the	
development of lung tumors carbon black at levels that ir and lung tumors. Moreover, tumor development in rats. Epidemiology studies of wo	s in rats receiving che nduce particle overlood, a two-year cancer larkers in the carbon b	ronic inh ad of the bioassay lack prod	alation exposures to free car lung. Studies performed in ar using a typical toner prepara lucing industries of North Am	oon black. The effects were ol himal models other than rats ha tion containing carbon black of erica and Westem Europe do	bserved only in animals exposed to high concentrations of ave not demonstrated an association between carbon black demonstrated no association between toner exposure and not demonstrate an association between carbon black and ded that "there is inadequate evidence in humans for the	
carcinogenicity of carbon bla	ack. "Chronic over ex	posure to	many dusts, including carbo	n black dust, may result in res	piratory tract irritation and slight changes in lung function.	
Signs and Symptoms on None	of Exposure					
Medical Conditions						
Generally Aggravated by Exposure None  Emergency and First Aid Procedures						
Not applicable	iiu i loccuules					
Section VII - Pr	ecautions f	or Sa	afe Handling and	d Use		
Steps to Be Taken in C Not applicable	Case Material is F	Release	ed or Spilled			
Waste Disposal Metho						
Dispose by the sam compliance with loc regulations.	ne method of ord al, state and fed	linary p eral law	lastic products in accors and regulations. If ne	dance with all applicable cessary, contact governr	e regulations. Any disposal practice must be in ment office and ensure conformity with disposal	
Precautions to Be Take	en in Handling ar	nd Stori	ng.			
No special precaution						
Other Precautions None						
Section VIII - Co	ontrol Meas	sures	<b>i</b>			
Respiratory Protection (Specify Type) Not required						
Ventilation		Local No	Exhaust	Special No		
		Mech	anical(General)		Other	
Protective Gloves			!	Eye Protection		
Not required Not required						
Other Protective Clothi None	ng or Equipment					
Work/Hygienic Practice	es					
NOUG						

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