

## Material Safety Data Sheet (ANSI form)

### Section1 : Chemical Product and Company Identification

Product Name : PRINT CARTRIDGE MAGENTA SP C310HA  
 General Use : For Copier  
 MSDS Number : 406477  
 Company Name : Ricoh Americas Corporation  
 Department :  
 Address : 5 Dedrick Place, West Caldwell, NJ 07006 USA  
 Telephone : 1-973-882-2000 or 1-973-882-5218 (For product information)  
 Number : 1-800-336-6737 (For emergencies)  
 Telefax Number : 1-973-882-3959  
 E-mail : environmentinfo@ricoh-usa.com

### Section2 : Composition, Information on Ingredients

Ingredients CAS No./Common Name	Contents (%)	ACGIH (TLV)			OSHA (PEL)	
		TWA	STEL	C	TWA	C
7429-90-5 Al Substrate	>97	not applicable	not applicable	not applicable	not applicable	not applicable
Confidential Charge Transport Material	<1	N.A	N.A	N.A	N.A	N.A
Confidential Binder Resin	<1	N.A	N.A	N.A	N.A	N.A
Confidential Organic Pigment	<1	N.A	N.A	N.A	N.A	N.A
Confidential Metal oxide	<1	N.A	N.A	N.A	N.A	N.A

This product does not contain any of the following substances as ingredients.

Cadmium, Hexavalent Chromium, Mercury, Lead, Polybrominated biphenyls (PBB), Polybrominated diphenylethers (PBDE).

Section3 : Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

<b>HMIS</b>	Health : 0	Flammabilit : 1	Reactivity : 0	PPE:See section 8
		y		
<b>NFPA</b>	Health : 0	Flammabilit : 1	Reactivity : 0	
		y		

The Most Important Hazards

Adverse Human Health Effects :

Not applicable in normal use.

Potential Health Effects

Primary Entry Routes :

Inhalation ; No

Skin ; No

Ingestion ; No

Environmental Effects :

Not applicable in normal use.

Physical and Chemical Hazards :

Not applicable in normal use.

Specific Hazards :

Main Symptoms :

Acute Inhalation Toxicity

Acute Oral Toxicity

Acute Eye Irritation

Acute Skin Irritation

Sensitization

Chronic Effect

Carcinogenicity

Medical Conditions Aggravated by Exposure

not applicable

Classification of the Chemical Product

#### Section4 : First Aid Measures

Inhalation :

Not applicable.

Skin Contact :

Wash thoroughly with soapy water.

Eye Contact :

Not applicable

Ingestion :

Not applicable

Immediate Medical Attention :

#### Section5 : Fire Fighting Measures

Flash Point (degrees centigrade) : Not applicable

Burning Rate (mm/sec) : Not applicable

Autoignition Temperature (degrees centigrade) : Not applicable

Flammable Limits(%) : LEL Not applicable UEL Not applicable

Extinguishing Media to Avoid :

Specific Hazards :

Fire-Fighting Instructions / Specific Method :

Sprinkling water or use extinguisher in generally.

Protection of Firefighters :

#### Section6 : Accidental Release Measures

Personal Precautions :

Not applicable

Environment Precautions :

Not applicable

Methods for Cleaning Up :

Not applicable

#### Section7 : Handling and Storage

Handling :

Technical Measures/Precautions

Safe Handling Advice

Do not touch coated area of drum for quality.

Storage :

Technical Measures

Storage Conditions

Keep out of reach of children.

Avoid direct sunlight in quality.

Keep it at cool and dry place.

Packaging material

Specific Use(s) :

## Section8 : Exposure Controls/Personal Protection

Technical measures :

None needed under normal use condition.

Control Parameters

Exposure Limit Value ( l )

USA OSHA PEL (TWA) :

ACGIH TLV (TWA) : 非該当ppm

DFG MAK :

Personal Protection

Respiratory Protections (Specify Type)

not required

Eye Protection

not required

Protective Gloves

not required

Protective Clothing or Equipment

not required

Hygiene Measures

## Section9 : Physical and Chemical Properties

Appearance

Physical state :

Form : Drum

Colour : cobalt green

Odor : no odor

pH : Not applicable

Boiling Point (degrees centigrade) : Not applicable

Vapor Pressure (Pa) : Not applicable

Vapor Density (AIR=1) : Not applicable

Density (g/cm<sup>3</sup>) : 1.2

Formula Weight : Not applicable

Melting Point (degrees centigrade) : not available

Decomposition temperature (degrees centigrade) : Not available

Viscosity (Pa·s) : Not applicable

Volatile (%) : 0

Evaporation Rate (Butyl Acetate = 1) : Not applicable

Water Solubility (g/L) : Insoluble

not available Solubility (g/L) : -

## Section10 : Stability and Reactivity

Stability :

Stable

Hazardous Reaction :

Condition to Avoid :

Not applicable in normal use.

Materials to Avoid :

Not applicable in normal use.

Hazardous Polymerization :

None

Hazardous Decomposition or Byproducts :

Decomposition products will not occur.

## Section11 : Toxicological Information

### Acute Toxicity

Acute Oral Toxicity (LD50) :

Not available

Acute Dermal Toxicity :

Not available

Acute Inhalation Toxicity :

Not available

### Local effects

Acute Skin Irritation(PII) :

Not available

Acute Eye Irritation :

Not applied

### Sensitization

Acute Allergenic Effects :

not available

### Specific Effects

Carcinogenicity :

This product does not contain the carcinogenic substances which are listed on NTP, IARC and OSHA.

Mutagenicity : Negative (Ames test)

Reproduction Toxicity : Not include substance which listed on hazardous characteristics of reproductive toxicity.

Teratogenic : Not available.

## Section12 : Ecological Information

Mobility : Not available

Persistence/Degradability : Not known

y

Bioaccumulation : Not available

### Ecotoxicity

Acute Toxicity for Fish (LC50) : Not available

Acute Toxicity for Daphnia (EC50) : Not available

Algae Inhibition Test (IC50) : Not available

### Section13 : Disposal Consideration

General information:

Used drum should be disposed in an environmentally appropriate manner and accordance with governmental regulations.

Disposal methods:

Precautions

### Section14 : Transport Information

International Regulations

Land Transport

RID/ADR : Not applicable  
DOT 49 CFR : Not applicable  
ADNR : Not applicable

Sea Transport

IMDG Code : Not applicable

Air Transport

ICAO-TI/IATA-DGR : Not applicable  
UN Number : Not applicable

Specific Precautionary Transport Measures and Conditions

Keep it in cool and dry storage and avoid direct sun for quality.

### Section15 : Regulatory Information

Regulations

US Information

Information on the label :

TSCA (Toxic Substances Control Act) :

SARA (Superfund Amendments and Reauthorization Act) Title III

313 Reportable Ingredients :

California Proposition 65 :

Canada Information

WHMIS Controlled product :

EU Information

Information on the label (1999/45/EC and 67/548/EEC)

Symbol & Indication :

R-Phrase :

S-Phrase :

Special Precautions under 1999/45/EC Annex V :

76/769/EEC

This product complies with applicable rules and regulations under 76/769/EEC

## Section16 : Other Information

Explanation of Hazardous Materials Identification System [HMIS]& National Fire Protection Association [NFPA] Hazard Rating Systems:

Both the HMIS and NFPA systems use number from "0" to "4" to show the degree of hazard in an uncontrolled situation:

**0=Minimum Hazard 1=Slight Hazard 2=Moderate Hazard 3=Serious Hazard 4=Severe Hazard**

Colors may also be used in both systems:

**Blue=Health Hazard Red=Fire Hazard Yellow=Reactivity Hazard White=Indicate a special hazard**

HMIS will specify any Personal Protective Equipment required [PPE],

NFPA will specify OX(oxidizer), Acid(acid), ALK(Alkali), COR(Corrosive), W(use no water),

xx(Radioactive).

Literature References :

ANSI Z400.1-1993

ISO 11014-1

Commission Directive 91/155/EEC

IARC (1996) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds", Lyon, pp149-261

H.Muhle, B.Bellman, O.Creutzenberg, C.Dasenbrock, H.Emst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein(1991) "Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats" Fundamental and Applied Toxicology 17,pp280-299

IARC (2008) "IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol.93"

NIOSH CURRENT INTELLIGENCE BULLETIN "Evaluation of Health Hazard and Recommendation for Occupational Exposure to Titanium Dioxide DRAFT"

ACGIH-TLV : Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices

OSHA Z-Tables : US Department of Labor, 29CFR Part 1910 , Tables Z-1, Z-2, and Z-3

NTP (USA) : US Department of Health and Human Services National Toxicology Program Annual Report on Carcinogens  
DFG-MAK(GER) : DFG List of MAK and BAT Value

Symbol (EC) : EU Directive 67/548/EEC

91/155/ EEC : EU Directive 91/155/ EEC

1999/45/EC Annex V : EU Directive 1999/45/EC

76/769/EEC : EU Directive 76/769/EEC

EC 304/2003 : Regulation (EC) No 304/2003 of the European Parliament and of the Council of 28 January 2003 concerning the export and import of dangerous chemicals

WHMIS Controlled product : Canada Workplace Hazardous Information System

OELs-TWA (Australia) : Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 3008 (1995)]

Abbreviations :

OSHA PEL PEL (Permissible Exposure Limit) under Occupational Safety and Health Act

ACGIH-TLV TLV (Threshold Limit Values) under American Conference of Governmental Industrial Hygienists

DFG-MAK MAK (Maximale Arbeitsplatz Konzentrationen) by Deutsche Forschungs Gemeinschaft

RoHS Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment

TWA Time Weighted Average

IARC International Agency for Research on Cancer

NTP National Toxicology Program

WHMIS Workplace Hazardous Information System

NOHSC National Occupational Health and Safety Commission Act 1985



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